A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS
NURSE CARE PLANNING AND PATIENT CLASSIFICATION(U) NAVAL
POSTGRADUATE SCHOOL MONTEREY CA G R HAMER H MAR 86
UNCLASSIFIED
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS, NURSE CARE PLANNING AND PATIENT CLASSIFICATION

by

Gary R. Harmsen

March 1986

Thesis Advisor: N. R. Lyons
Co-Advisor: Tung Bui

Approved for public release; distribution is unlimited.
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS, NURSE CARE PLANNING AND PATIENT CLASSIFICATION

Mary R. Harmeyer

Master's Thesis

The project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system.

The program requires validation for access and patient admission capability. Doctor’s orders and nurse’s orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.

**COSATI CODES**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>GROUP</th>
<th>SUB-GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBJECT TERMS**

NURSING DIAGNOSIS, NURSING CARE PLAN, PATIENT CLASSIFICATION, AUTOMATION, COMPUTER, EXPERT SYSTEM.
Approved for public release: distribution is unlimited.

A Prototype Model for Automating Nursing Diagnosis, Nurse Care Planning and Patient Classification

by

Gary Richard Harmeyer
Lieutenant Commander, United States Navy
B.S., University of Iowa 1975
M.A., Webster College 1981

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN INFORMATION SYSTEMS

from the

NAVAL POSTGRADUATE SCHOOL
March 1986

Author: Gary Richard Harmeyer

Approved by: N. R. Lyons, Thesis Advisor

T. Bui, Co-Advisor

W. R. Greer, Jr., Chairman,
Department of Administrative Sciences

Kneale T. Marshall,
Dean of Information and Policy Sciences
ABSTRACT

This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system.

The program requires validation for access and patient admission capability. Doctor's orders and nurse's orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.
# TABLE OF CONTENTS

## I. INTRODUCTION

6

## II. PROJECT INITIATION ACTIVITIES AND BACKGROUND

8

### A. SCOPE

8

### B. COMPUTER/COMPUTING CONSTRAINTS

9

1. Hardware

9

2. Software

9

3. Intended User

9

### C. DEFINITIONS

10

1. The Nursing Care Plan

10

2. The Nursing Diagnosis

12

3. Patient Classification

13

4. Expert System

14

## III. REQUIREMENTS DEFINITION AND ANALYSIS STAGE

15

### A. PATIENT ADMISSIONS

15

### B. NURSING CARE PLAN AND PATIENT ORDERS

15

### C. TRACING USERS AND PROGRAM SAFEGUARDS

18

### D. USING AN EXPERT SYSTEM FOR DETERMINING PATIENT CLASSIFICATION LEVEL

19

## IV. DESIGN STAGE

20

### A. PATIENT ADMISSION CRITERIA

20

### B. NURSING CARE PLAN

20

### C. DOCTOR ORDER CRITERIA

21

### D. PATIENT ORDERS

22

### E. USER INFORMATION

23
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. EXPERT SYSTEM</td>
<td>24</td>
</tr>
<tr>
<td>G. SCREEN FORMAT</td>
<td>25</td>
</tr>
<tr>
<td>H. SOFTWARE SELECTION</td>
<td>25</td>
</tr>
<tr>
<td>V. PROGRAMMING STAGE</td>
<td>28</td>
</tr>
<tr>
<td>A. TRACING USERS AND PROGRAM SAFEGUARDS</td>
<td>29</td>
</tr>
<tr>
<td>B. PATIENT ADMISSIONS</td>
<td>32</td>
</tr>
<tr>
<td>C. DOCTOR ORDER SECTION</td>
<td>33</td>
</tr>
<tr>
<td>D. NURSING CARE PLAN AND PATIENT CLASSIFICATION FUNCTION</td>
<td>36</td>
</tr>
<tr>
<td>E. INFORMATION SYSTEM</td>
<td>41</td>
</tr>
<tr>
<td>F. PROGRAM TESTING</td>
<td>41</td>
</tr>
<tr>
<td>VI. IMPLICATIONS FOR FUTURE STUDIES</td>
<td>43</td>
</tr>
<tr>
<td>VII. CONCLUSION</td>
<td>47</td>
</tr>
<tr>
<td>LIST OF REFERENCES</td>
<td>49</td>
</tr>
<tr>
<td>APPENDIX A [DATA DICTIONARY]</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX B [STRUCTURE CHART]</td>
<td>62</td>
</tr>
<tr>
<td>APPENDIX C [USER'S MANUAL]</td>
<td>65</td>
</tr>
<tr>
<td>APPENDIX D [CRITICAL INDICATOR, QUALIFIERS/VALUES AND RULES]</td>
<td>93</td>
</tr>
<tr>
<td>APPENDIX E [PROGRAM LISTINGS]</td>
<td>148</td>
</tr>
<tr>
<td>APPENDIX F [PROGRAM SCREENS]</td>
<td>363</td>
</tr>
<tr>
<td>APPENDIX G [DATABASE STRUCTURES]</td>
<td>400</td>
</tr>
<tr>
<td>INITIAL DISTRIBUTION LIST</td>
<td>402</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

The appropriate time to assess the nurse's automation needs is when a hospital-wide system is being proposed. The Navy Nurse Corps is currently in this unique position. A Mission Element Needs Statement proposed the creation of the Composite Health Care System in 1979. A formal Request For Proposal allowed vendors to bid for the implementation of the system in 1985. The Composite Health Care System calls for a phased implementation process with phase one scheduled to begin in 1986. Inpatient activities, including the areas addressed in this project, occur in phase two. The Navy Nurse Corps faces a system implementation imminently. Timing dictates that the Nurse Corps seek prototypes of automated systems that best serve its needs.

This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system. Meeting the objective necessitates the inclusion of the doctor's orders. The doctor's orders, in combination with the nurses's orders, reflect the independent, dependent and interdependent activities of
nursing. The combined orders serve as the foundation for the nursing care plan and the patient classification system. Departmental interfaces demand inclusion in the design of any nursing care software package.

To provide a realistic setting, the program requires validation for access and patient admission capability. The validation for entry is a necessity to safeguard patient information from unauthorized access and invasion of privacy. Patient admission capability allows for identifying and testing different patient scenarios.

This prototype project gives a partial operational solution to the planning model proposed by Rieder and Norton in "An Integrated Nursing Information System - A Planning Model." Reider and Norton state,

the processing step of classifying patients could be fully automated. The computer could process patient information and determine each patient's acuity category from the Critical Indicator parameters stored within the system. As orders and plans of care change, the computer also will update each patient's acuity category and display the results on demand. [1:78]

This program plans to show one way of automating the patient classification system using nursing diagnosis and patient care plans.
II. PROJECT INITIATION ACTIVITIES AND BACKGROUND

This software project follows the outline presented by Pressman [2] and found in the GSA Office of Software Development publication "Establishing A Software Engineering Technology (SET)." In this publication, the Federal Software Testing Center describes SET as:

Software engineering is sometimes referred to as the discipline that brings order to the software development process. [3:3]

This software development effort concentrates on the first three of six software life cycle stages outlined by SET. These steps are requirement definition and analysis, design, and programming. The final three stages of validation, operation and review remain for a follow-on project.

A. SCOPE

This software product limits its application to an in-hospital medical-surgical environment. The emphasis is on automating the nursing care plan activities driven by nursing diagnosis. The patient classification system uses an expert system for automation. Automating the nursing care plan activity holds potential for improving documentation, resulting in better patient care. Automating the patient classification system provides for consistency and accuracy in assigning points for all
patient care parameters. This provides for easy, rapid classification of patients giving the decision makers necessary and timely information to make effective staffing assignments.

B. COMPUTER/COMPUTING CONSTRAINTS

1. Hardware

The computer hardware chosen for this project is the IBM-PC or IBM-compatible machine. Nurse Corps Officers testing the prototype model operate available Zenith-150 microcomputers located within the nursing service departments. These microcomputers are configured with two floppy disk drives. The capacity of floppy disks to hold data delineates the maximum size of the project.

2. Software

This project uses off-the-shelf software. However, no current product on the market provides for both the automation of a nursing care plan and for patient classification. A versatile, multipurpose programming software package adaptable to the project design provides the means to integrate the nursing activities.

3. Intended User

Navy Nurse Corps functions are currently not highly automated. It is a goal of the software product development to make the system user-friendly and understandable even to the novice nurse. The system designed is for use as a tool for the professional nurse.
Stringent programming measures reduce the understanding required of the inner workings of a computer.

C. DEFINITIONS

1. The Nursing Care Plan

The nurse is a manager of time, energy and resources. Conscientious planning occurs throughout the many levels of a nurse’s job. The nursing care plan is at the heart of what a nurse should get accomplished for a patient. The nursing care plan allows the nurse to approach each patient with a documented plan of action. The care plan needs to contain sufficient information on the patient to make it pertinent without making it lengthy and unwieldy.

Currently, the writing of nursing care plans is not a popular activity. [4-6] Nurses agree that patient care planning is necessary. They disagree on how best to implement the documentation of nursing care plans. Education and practice direct nurses to prioritize energies on administering patient care. This is an admirable goal to strive toward, but one often infringed upon by non-patient care requirements. Animosity exists between the need to provide the necessary nursing care and the time spent documenting the care. Manual documentation currently eats up 40 per cent of a nurse’s time. [7:26]

Various approaches to encourage, enable and persuade nurses to complete nursing care plans have been
tried. The Joint Commission on Accreditation of Hospitals (JCAH) requires a documented plan of care for every patient. [8:98] Texts have been published to inform nurses about suggested care planning methods. [9-10] Many hospitals establish nursing committees to provide standardized care plans. Standardized care plans attempt to save nurses the time and energy necessary to develop original care plans. They still allow individualization of plans. These attempts to simplify care plan writing activities have not succeeded. What often results is a nursing care plan written precursory to assessing the true needs of the patient. The plan rapidly outdates itself. Plans frequently need updating. The care plans lack consistency from one practitioner to another. Patient care plans written to meet JCAH requirements, fall short of matching the spirit behind them.

A possible solution to the above care planning dilemma is beginning to appear in nursing literature. In many instances that solution is a successfully implemented automated nursing system. [11-12] Where a successful automated system exists, more nurses actively develop care plans for their patients. Nurses perceive the automated plans as helpful and pertinent to the care delivered. The speed and ease of entering care plans pays dividends of better nursing care documentation. Their timely output encourages active use of the plans.
2. The Nursing Diagnosis

One accepted method for formulating a nursing care plan commences with a nursing diagnosis. A nursing diagnosis, as stated by Carpenito, is:

a statement that describes a health state or an actual or potential alteration in one's life processes (physiological, psychological, sociocultural, developmental, and spiritual). The nurse uses the nursing process to identify and synthesize clinical data and to order nursing interventions to reduce, eliminate, or prevent health alterations which are in the legal and educational domain of nursing. [13:4]

Automation was one of the catalysts behind the First National Conference on Classification of Nursing Diagnoses. Since the first conference, 52 of the most pertinent nursing diagnoses (through the Sixth National Conference of the North America Nursing Diagnosis Association), have been identified. Nursing diagnoses, along with delineating the etiology and interventions appropriate to each, has produced a national effort aimed at unifying activities in nursing. [14:xi] The nursing diagnosis approach has received broad support from the nursing community. The nursing diagnosis drives this computer project.

Numerous texts provide sample or generic statements initiated by nursing diagnosis. Many hospitals interested in implementing automated nursing care planning use standard texted plans. This program extracts examples from Doenges [15] and Crosley [16].
A nursing diagnosis is multileveled. A nursing diagnosis can be any one of the 52 approved nursing diagnoses. Each diagnosis has an assessment level. Assessment levels are defining characteristics observed by the nurse or subjectively stated by the patient. The nurse's observation or the patient's statement is relational to some etiology or underlying cause. The underlying cause statement helps the nurse evaluate realistic goals for the patient to achieve. Goal setting is the fourth level of nursing diagnosis. The final level is selecting nursing actions or nurse's orders directed toward achieving the stated goal.

3. **Patient Classification**

Patient classification is:

the grouping of patients according to an assessment of their nursing care requirements over a specified period of time. [17:8]

A valid patient classification tool enables proper staffing evaluation. This program will adopt the Navy Nurse Corps' Workload Management System for Nursing. This method of classifying patients exists in all inpatient Navy facilities. The Nurse Corps has established solid criteria-based critical indicators which this program will exploit for deriving a classification level. The classification level equates an amount of nursing time required to give patient care.
The Navy Nurse Corps is ahead of its civilian counterparts in its use of a sophisticated tool to measure patient classification level. The use of the Workload Management System worldwide has given the Nurse Corps excellent data to improve its system. The continual drawback that many manual tools have, including this one, is subjectivity and inconsistency across users. With inservice training and auditing, the Nurse Corps attempts to keep the reliability of its model high. Automating such an activity would enhance consistency and accuracy.

4. Expert System

This program will introduce an expert system limited to the patient classification documentation. Ryan defines an expert system as a system capable of operating with a large knowledge database, processing information on expert level. She continues with

benefits of expert systems are that they can capture, replicate, and distribute expertise. [18:77]

As a large standardized nursing knowledge database accumulates, the application of expert systems will increase in importance.

For this project, patient classification adapts well to an expert system approach. The critical indicators and their associated value can easily fit the if-then format of most expert systems. The expert system will extract from a patient’s orders the applicable critical indicator values and calculate a classification level.
III. REQUIREMENTS DEFINITION AND ANALYSIS STAGE

The first stage of software development is the requirements definition and analysis stage. This stage defines the purpose of the system and examines the different components that ultimately make the whole. The prototype system provides the nurse with a tool to assist in the documentation of the nursing care plan and calculation of a patient classification level.

A. PATIENT ADMISSIONS

Nurses cannot exercise their skills without patients. The ability to bring patients into the system (admission), and have them exit the system (discharge) provides a realistic situation. The varying population number necessitates an expandable capacity for holding patient information.

B. NURSING CARE PLAN AND PATIENT ORDERS

A patient occupies a specific bed in a numbered room located on one of several nursing wards. After the patient arrives on the ward, doctors write orders. The nurse interviews the patient and develops a nursing care plan. The care plan consists of one or more nursing diagnoses. Each nursing diagnosis has one or more assessments, related factors, patient goals and nursing orders. The initial
doctor's and nurse's orders comprise the patient care requirements. The patient care requirements determine the patient classification level.

The orders determine the patient care requirements. Both doctor's and nurse's orders dictate nursing care activities. The calculation of a patient classification hinges on the analysis of the patient orders for relevant critical indicators.

A patient order consists of the date, the time, the order, the frequency of the order, and the practitioner initiating the order. Date and time dependency is critical for patient orders. An order's date and time determines whether the order is current or due for deletion. The order date is also important for patient classification determination. Patient orders prescribed for a specific number or repetitions (i.e. x 3 or x 12) are nonrecurring orders. Nonrecurring orders input to patient classification calculation only on the date they were issued.

The purpose of the critical indicators is to easily translate patient orders to a patient classification level in a manual system. Only those orders that closely parallel the critical indicators in the Nurse Corps' Workload Management System for Nursing need consideration.
A need exists for the user to identify a patient then move on to select patient orders. The indexing of orders to allow for logical progression aids the process.

Individual orders will need to be linked to a relevant critical indicator. Many critical indicators are time or frequency dependent. The program should tie these factors together. Patients frequently require several doctor's orders from the same section. The program would need to accommodate for some type of looping to handle multiple order entry for a single subcategory.

The practitioner is a doctor or a nurse qualified to enter patient orders. The program should have an internal check to assure that a practitioner has limited ordering access pertinent to their qualifications.

The patient's condition is dynamic. The program will need to provide an easy method to modify changes. Nursing care plans vary in length and content. Some patients have multiple nursing diagnoses, while others have only one. The program would have to accommodate for these variations.

Some method would need to be available for communicating modifications to staff members. This communication process is best if the output is in a printed format. Printed output allows for the information transmittal to staff members even when away from the computer location.
A number of nursing diagnoses in the system is desirable. Patient needs cannot be anticipated. A variety of diagnoses allows for specific selection. Because a nursing diagnosis requires documentation of assessments, related factors, goals and nurses’ orders, these functions require inclusion.

C. TRACKING USERS AND PROGRAM SAFEGUARDS

Some input information should distinguish for the system that the current user is either a doctor or a nurse. A doctor will want to choose a ward for patient admission, identify the patient and select orders. A nurse will want to select a ward and patient but then either select a nursing diagnosis or calculate a patient classification. The doctor/nurse functions, although related by patient selection are different in nature. When users enter the system the program should identify whether they are doctors or nurses, and direct their attention to the appropriate branch of the program.

The program selectively allows access to program information to eliminate unauthorized access. The program contains hypothetical patient information. Nevertheless, addressing the privacy of sensitive patient information is relevant even in a prototype setting. Safeguards built into the system reduce the chance of successful unauthorized entry.
D. USING AN EXPERT SYSTEM FOR DETERMINING PATIENT CLASSIFICATION LEVEL

A self-imposed requirement of the system is to use an expert system to determine the patient classification level. This expert system should interpret the patient order as to which critical indicator applies and the frequency of its performance. The expert system then translates that information into patient care points which then calculates a patient classification level.

The use of an expert system would allow a user the option of reviewing rules used in calculating the patient classification. The patient classification tool is continually evolving. By monitoring rules and their underlying critical indicators, the user gets a visual output of the points and how they were derived.
IV. DESIGN STAGE

The design stage attempts to answer how the system will accomplish the requirements outlined in the requirements definition and analysis stage.

A. PATIENT ADMISSION CRITERIA

The need analysis pointed out the requirement for handling varying numbers of patients with set criteria on each patient. Two options to meet this requirement are an automated file system or a database system. Generalized patient data that would need to be included are: patient's first, middle and last names; their rank or rank; their family member prefix concatenated with their social security number giving a unique identifier; birthdate; age; sex; admission date; hospital registration number; medical diagnosis; physician; prognosis; allergies; as well as their nursing ward, room and bed assignments. (See Appendix A, Data Dictionary; Appendix B, Structure Chart; and Appendix C, User's Manual for additional information.)

B. NURSING CARE PLAN

A representative four of the 52 approved nursing diagnoses were selected due to the floppy disk capacity constraint. To some degree, every patient experiences self-care deficit when admitted to the hospital. Other diagnoses
are more applicable to some specific area in nursing. The three other nursing diagnoses reflect diagnoses frequently seen in a military hospital setting. These diagnoses are: comfort, alteration in: pain; communication, impaired: verbal; and impaired physical mobility.

Critical indicators that fall under the independent and interdependent roles of nursing need to be identified. After identification, these indicators require incorporation into the nursing order screens for selection. These critical indicators need to be back-chained to one of the four nursing diagnoses, to provide for their selection.

The critical indicators on the Patient Classification Critical Indicators list that were identified as independent or interdependent nursing functions were: all activities of daily living except turning frame; spoon feeding adult and children patients; accompany patient off ward, other activities requiring nurse's time and special procedures; range of motion exercises; and all items listed under teaching and emotional support. This is an initial grouping, conservatively chosen.

Multiple nursing diagnoses, with their corresponding assessments, related factors, goals and nursing orders, can be handled with either a file system or a database system.

C. DOCTOR ORDER CRITERIA

The criteria to include doctor order categories will be to meet critical indicator requirements and provide a
representative model of patient orders. An admission section monitors the patient flow. This satisfies the critical indicators of admitting and transferring patients. An activity section captures the mobility level of a patient. A diet section captures the dietary requirements of a patient. A section provides selections of intravenous and blood products that a patient might require. Laboratory and pharmacy sections allow orders for lab tests and medications. A monitoring section allows options for monitor orders. A radiology section captures radiology test orders. A respiratory therapy and vital sign section allows orders that relate to those areas. Finally, a ward routine section captures the nursing care activities normally restricted to the ward setting.

These categories would allow for the dependent and interdependent functions of nursing, which the critical indicator list includes. Either a file or a database implementation would satisfy these requirements.

D. PATIENT ORDERS

Microcomputers have the ability to maintain an internal clock upon entry of the current date and time. The program would need to pick up this data from the system's clock to attach it to patient orders. The actual order length would need limitation to a number that would best suit a screen presentation format. The number of options for
time/frequency would need to include those commonly found in a medical environment.

The design should accomplish the looping for multiple orders in a single subcategory. Once selected, an order is activated and placed in an order file or database. The program returns for another order or to have the user select to move on.

E. USER INFORMATION

The use of a user chosen password to access the program would accommodate all of the identified requirements. Utilizing a user information database would provide for users to be added or deleted from the program. The database carries their status within the organization and provides an access level for legal entry into the program. A doctor or nurse, by signing on to the system and entering their valid password, would dictate which branch the program should route them through. The password would also limit those not authorized to use the system from entering the program.

To provide for a degree of user specialization, the design proposes four areas of access. The first is for admissions personnel. In a hospital, the admissions department is physically separate from the ward. Admissions personnel are responsible for the input of patient information. The second group is the nurses who develop the nursing care plan and determine the patient classification. The
third group is the physicians who select doctor's orders. The fourth group is the information systems personnel. Their role would be to add new users and delete obsolete ones. Access level assignments occur during routine check-in procedures of personnel. The actual assigned level would depend upon the employing department and the job position. Additionally a fifth group exists for the prototype model. This is a group of users, with passwords allowing access to all areas to aid in the testing and integration of the software model.

F. EXPERT SYSTEM

The expert system calls for special input consideration. A patient order consists of the order and the frequency. Major order headings (i.e. vital signs) can be categorized as a qualifier. Listed under each qualifier is its potential values (i.e. QID or less, q4h or x 6, q2h or x 12, q1h or x 24). From this system of qualifier and value, rules can be derived (i.e. vital signs QID or less receives a value of 1 patient point). By splitting the critical indicators into qualifiers and values, thus setting up conditions, the formulated rules allow the system to derive a patient classification level. (See Appendix D.)
G. SCREEN FORMAT

User friendliness is a goal many programs strive to achieve. This program will follow many of the suggestions of Monk's text on Fundamentals of Human-Computer Interaction. The program will rely on consistent screen formats which locate user instructions in the same place on each screen. After patient identification, the patient information is put on every screen so the user has no question which patient he has selected. The program will provide the user with consistent input locations. Screens are uncluttered and easy to follow. The screen color is white lettering on blue background. Although speed is not a prime consideration for this model, it influences the selection of the method of screen projection. A software utility called Flashcode creates the screen projections. Where possible, the user returns to a previous screen, or to a home base to reorient themselves. A rudimentary help facility allows on-line assistance. The help facility demonstrates its function rather than providing indepth assistance with this prototype model. (See Appendix E and Appendix F.)

H. SOFTWARE SELECTION

With hardware choice set by the constraints of the user, software compatibility is the remaining issue. Numerous software packages exist for IBM-compatible microcomputers. Information in a database format provides
increased data flexibility and maneuverability. Some advanced programming tools provided by database software producers simplify the task of programming. These are major incentives to choose a database orientation. The database language, dBase III, has user friendly features and the capability for meeting most of the identified requirements. An area for which dBase III can only provide a partial solution is the expert system. The dBase III program has the ability to calculate patient point totals and derive a patient classification level. It lacks the option of allowing the user to see why it calculated its results in a specific way.

The expert system chosen is Exsys. Exsys is an off-the-shelf expert system that can accommodate the number of critical indicators outlined in the Navy’s Nurse Corps’ Workload Management System for Nursing. This software product can also do the necessary calculations required to arrive at a patient classification level.

The information format coming into Exsys requires the statement of qualifiers and values. The dBase III language accommodates for this by including the qualifier and value with each order selected. A salient feature of Exsys, that makes it especially appropriate for this design, is its ability to import data from an output file. Exsys operates as an interactive independent program using the same conditions and rules. This option is useful because of the
iterative nature of both the critical indicator development and that envisioned for this system. In addition, Exsys does allow the user to view rules used to derived a classification. A visual check of the applied rules against the individual patient order allows the achievement of greater reliability. (See Appendix D.)
V. PROGRAMMING STAGE

The programming stage constructs a product for the user. The software product incorporates details identified in the analysis and design stages to produce a workable solution. The product's overview is presented in Figure 1.

![Diagram of Nursing Prototype Product Overview]

Figure 1   Nursing Prototype Product Overview

Box 1    Coordinating Module
Box 1.1  Patient Admissions
Box 1.2  Select Ward and Patient
Box 1.2.1 Select Doctor Orders
Box 1.2.2 Select Nursing Diagnosis, Nursing Orders and Patient Classification
Box 1.3  Patient Classification
[----]  Expert System [Exsys]

A modular approach was used for programming. Appendix B displays the design modular structure of the prototype system—a detailed version of Figure 1. This structure was used as a guide in program development. Programming
modularity allows the programmer to work with smaller more manageable units. This enables the programmer to easily test and debug a module before integrating it into the system. The use of comments throughout the programming effort attempts to improve the maintainability of the program. (See Appendix E for program listings.)

A. TRACKING USERS AND PROGRAM SAFEGUARDS

In programming modules the author has tried to minimize the number of steps required for the user to move between modules. Whenever possible, the system automatically advances the program to the next screen.

Screens are used in this chapter to demonstrate the method used to convert design details to workable solutions.

The program opens with an introductory screen (Figure 2). The screen gives information on the organizations supporting the program and identifies the author. Depressing any key advances the program to a screen requesting a password (Figure 3). Advancing beyond the second screen requires a valid password. The program compares the entered password against a database of user’s passwords. If the password is a match, the user moves forward to the main branching module of the program. Incorrect passwords deny access with the opportunity to re-enter a password.
A PROTOTYPE PROJECT FOR THE NAVY NURSE CORPS

BY

GARY R. HARMEYER LCDR NC USN

MARCH 1986

NAVAL POSTGRADUATE SCHOOL MONTEREY, CALIFORNIA

RELEASE 1

PRESS ANY KEY TO BEGIN

Figure 2 Introductory Screen

*** Please Sign On By Entering Password ***

** Password :

Figure 3 Validation Screen
As a result of entering a valid password, the system now recognizes the user by name and access level (See Figure 4).

** Prototype Master Screen **

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

*** Select the Desired Option ***

1) Admission's Department
2) Doctor's Master
3) Nursing Master
4) System Administration
5) Sign-Off

Current User: Select one number (0-4) ---->

Figure 4 Prototype Master Screen

The four user access levels available in this program are admissions personnel, nurses, doctors, and administrative personnel. The current user's name appears in the bottom left corner of each screen. Since the system now recognizes a user by name and access level, the main branching module restricts the user's entry to a branch corresponding to that access level.

The main branching module provides five options for selection. The first option, which appears on essentially every screen, is to sign-off from the system. This ends the current user's session, and returns the program to the introductory module. The other four options relate to the main sections of the program.
B. PATIENT ADMISSIONS

The selection of admission's department advances the program to an admit/discharge option module. The admit option moves the user to a patient data input screen (Figures 5,6). Admitting a patient requires the user to input patient data to a patient information database. (See Appendix C for the User’s Manual.) From this database, the program uses the patient's name, family member prefix-social security number [Fmp-ssn], ward, room and bed. After entering the patient data, the user returns to the admit/discharge module.

The selection of discharge a patient moves the user to the discharge module. The user reviews and selects patients for discharge. Upon leaving the discharge module,

--- SELECT ADMIT / DISCHARGE OPTION ---

1) Admit A Patient

2) Discharge A Patient

0) Sign-Off

Current User: Select one number (0-2) 

Figure 5 Admit/Discharge Screen
Patient Admission Form

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>Registration No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>Medical Diagnosis:</td>
</tr>
<tr>
<td>Mid Initial:</td>
<td>Physician:</td>
</tr>
<tr>
<td>Rate/Rank:</td>
<td>Prognosis:</td>
</tr>
<tr>
<td>FMP-SSN:</td>
<td>Allergies:</td>
</tr>
<tr>
<td>Birthday:</td>
<td>Nursing Word:</td>
</tr>
<tr>
<td>Age:</td>
<td>Room Number:</td>
</tr>
<tr>
<td>Sex:</td>
<td>Bed:</td>
</tr>
<tr>
<td>Admit Date:</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6  Patient Admission Screen

the program purges all patient records flagged for discharge. The program also purges any patient data in other databases with identical fmp-ssn identifiers. (See Appendix G.)

This module limits itself to handling primitive admit/discharge situations. Although limited, this module allows the nurse user to test a number of patient scenarios while working with the prototype system.

C. DOCTOR ORDER SECTION

The doctor option of the main branching module advances the physician to the nursing ward selection module. The doctor chooses between one of two nursing wards (Figure 7). A surgical and medical ward option reflects the major divisions of patients in a hospital. Options to return to
the main branching module or to sign-off the system are also provided.

A ward selection moves the program to one of two nursing wards containing six beds (Figure 8).

** Nurse’s Station Selection **  

*** Select Nursing Unit to Display Patients ***

1) 2E Surgical ward  
2) 3E Medical ward

** Patient Selection **  

*** Select Patient ***

RM BED  
PATIENT
1) 1 A  
2) 1 B  
3) 2 A  
4) 2 B  
5) 3 A  
6) 3 B

** Sign-Off **  

7) Master Screen

Figure 7  
Nurse’s Station Selection Screen

Figure 8  
Patient Selection Screen
Patients' names, listed in the patient information database, appear in their ward, room and bed assignments. Valid options include: sign-off, return to main branching module, and selection of a patient assigned to an occupied bed.

A patient selection advances the physician to the doctor's branching module (Figure 9).

<table>
<thead>
<tr>
<th>Ward</th>
<th>Room</th>
<th>Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

--- DOCTOR'S MASTER SCREEN ---

1) Order Entry  
2) Admit / Transfer / Discharge Patient  
3) Review Medical Orders  
4) Print Medical Orders  
5) Discontinue An Order

0) Sign-Off  
6) Master Screen

Current User: [ ] Select one number (0-6) ----> *

Figure 9  Doctor's Master Screen

The doctor's menu provides options for deciding on the next activity. With the exception of output forms (i.e. review of the doctor orders on screen or printed), any selection results in menu modules for doctor's orders (Figure 10). Many orders request additional order information moving the program to a time/frequency module. The doctor's order with the frequency determines a qualifier and value listing in the patient's order.
Figure 10  Ward Routine Screen
database. Qualifier and value information transfers to the
expert system. In addition, a patient point value appears
in the patient order database. This number provides the
option of dBase III calculating its own internal patient
classification level. [See Appendix G.]

D. NURSING CARE PLAN AND PATIENT CLASSIFICATION FUNCTION

At the main branching module, the nursing option
advances the program to the nursing ward selection module
(Figure 6,7). This module, and the patient selection
modules are identical to those presented to the physician.
The program sets an internal flag to indicate the access
level of the user. After patient selection, the nurse
automatically tracks to the nursing branching module
(Figure 11).
The nurse branching module provides a menu for direction for the user to proceed. Options include the selection of a new nursing care plan, modifying an existing care plan, reviewing or printing patient care requirements (consisting of all active patient orders), reviewing or printing the nursing care plan information, and determining the patient classification system.

After the nursing care plan option selection, the program advances to a module allowing for a new care plan entry or a modification of an existing care plan. The choice of a new nursing care plan provides the option of the four selected care plans (Figure 12).

All patients require a minimum of one care plan (self-care deficit). All diagnoses, assessments, goals and
nursing generated orders enter into a nursing care database (Figure 13). In addition to the nursing care database, nurse generated orders are also placed in the patient order database for inclusion in the calculation of the patient classification. (See Appendix F for additional screens.)

---

**SELECT NURSING DIAGNOSIS**

1) Comfort, Alteration In: Pain
2) Communication, Impaired: Verbal
3) Impaired Physical Mobility
4) Self-Care Deficit

0) Sign-Off
5) Nurse's Master Screen
6) Master Screen

---

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**

**COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL**

1) Assess Pain Factors
2) Assess & Evaluate Pain
3) Encour Pt to Use Coping Strategy
4) Give Info & Explain Proc & Tests
5) Other Nursing Orders:

6) Offer PRN Medications
7) Provide Emotional Support
8) Schedule "Quiet Times"
9) Teach Alt Coping Strategies
10) Utilize Diversional Activities

---

38
If the option selected inactivates a portion of the nursing care plan, the user moves to a module for review of existing care plan entries. If an entry is inactivated, the program purges all portions related to that specific entry including the order in the patient order database.

The selection to review or print the patient care requirements consists of all active patient orders. Active orders consist of previously selected orders, and those orders selected for a specific frequency (i.e. x 2) on the date of their selection. The same criteria applies when determining patient classification (Figure 14).

The nurse can also select to review only the nursing care plan portion of the patient record. This enables review of the nursing care plan to determine if modifications or updating is necessary.
Two options for determining patient classification exist. The first option keeps the user in the current program, and generates a number with a corresponding patient classification level (Figure 15).

Patient: Mary Miser
Is In: Category I
Point Value Is: 27

Each order receives a point value based upon the order selected and the frequency for that order. Then dBase III sums these points and assigns a patient classification level. The program does not explain how this number was calculated. A less user-friendly method results when selecting the second option— that of external calculation of the patient classification. The user exits the dBase program, changes floppy disks, and runs Exsys. The patient point value and level would not change, but the expert system program displays rules used to derive the classification level.
E. INFORMATION SYSTEM

The information system section of the program is a parallel development of the admission's department. User's of the program must have the appropriate access level to advance beyond the main branching module (Figure 3). The program limits transactions to adding another user to the system or deleting a current user (Figures 16, 17).

*** SELECT ADD / DELETE A USER ***

1) Add A User

2) Delete A User

3) Sign-Off

Current user: ____________________________ Select one number (0-2) ----> *

Figure 16 Add / Delete A User Screen

F. PROGRAM TESTING

Testing is an aspect of the programming stage. Testing criteria are three-fold. First, procedural testing of separate modules (white-box testing) takes place as modules are completed. Next, integration testing assures modular interfaces are smooth from one program to another (black-box testing). Finally, independent use by a third party tests the program in a simulation performance. Where
testing uncovered mistakes, program modifications correct the errors.

---

**USER INFORMATION**

*** THIS INFORMATION IS CONFIDENTIAL ***

---

First Initial:  
Middle Initial:  
Last Name:  
Category of Requestor:  
Password:  
Access Level:  

---

Figure 17  User Information Screen
VI. IMPLICATIONS FOR FUTURE STUDIES

Creating a hospital information system model is a time-consuming methodical process. A program using nursing diagnosis to drive nursing care plans produces a logical product. The major implications of this program center on the automation of the patient classification system.

Tying critical indicators to patient orders is an arduous task that required many iterations. The program makes assumptions about orders. This program assumes the physician knows the difference between a simple and complex dressing change (see Figure 10). The distinction between a 15 minute dressing change and 30 minute dressing change can be very subjective. Frequency of patient orders relates to almost all the critical indicators. This program separates the time/frequency options into prn (as necessary), once a day, twice a day, 3, 4, 6, 12 and 24 times a day. The latter seven options divide further into recurring orders (i.e. twice a day) verses nonrecurring orders (x 12). Recurring orders continually count toward the patient classification level until discontinued. The nonrecurring orders count only on the day ordered. Nurses calculate classification levels daily at 1400. Many nonrecurring orders are completed by that time and should not be calculated. The program counts these orders.
Duplicate orders result in duplicate point calculations. For example, if a doctor and a nurse each order passive range of motion exercises for a patient TID, the patient point total would be 8 vice the correct total of 4. The program tallies 2 points for isolation precautions regardless of the number of gown and glove changes. The correct assignment gives 2 points for every eight gown and glove changes.

In the current manual system, doctors and nurses assume that new orders supersede previous orders. If doctors and nurses hold to that assumption, this program produces inaccurate results. For example, if a patient's condition improves, the doctor writes an order for vital signs Q4h (with a patient point value of 2) without deleting the original order of vital signs Q2h (patient point value of 4). The program totals vital signs points as 6 instead of 2.

Some critical indicators do not readily convert to a patient point value. The program accommodates for three of these critical indicator exceptions. The critical indicator for apnea monitor, temperature monitor, etc. is not additive and as such translates indirectly from patient orders. The critical indicator for specific gravity, Guia, etc. is additive across orders resulting in a point total assignment. The classification listing limits emotional support to a maximum total point value of 10.
Assigning a patient point value to these patient orders requires an intermediate variable. The calculation occurs first for the intermediate variable. This amount then feeds into the sum of other patient point values.

Medication and laboratory critical indicators presented difficulty in program translation. The program assigns points for medication and laboratory samples on a per order basis rather than on a per trip basis. The intended critical indicator for both factors assesses points on a per trip basis. The nurse actually delivers all the medications for a specific time in one trip. The nurse draws numerous lab tests with one venipuncture. The program calculates point values based on individual medication or laboratory test order. Aggregating nonintravenous medications and laboratory tests into time groups would provide accurate results. However, the effort required to program in time groups was counterproductive for this project.

The program overlooks patient situations requiring more than one staff member. Currently, all critical indicators except turning frame, which explicitly includes two staff members, calculate on a one staff member per patient basis.

To accommodate for patient orders not currently listed on the nursing order screen, an "other orders" option exists (see Figure 13). The option allows any nursing order entry. Entries in this category result in no patient points awarded to those orders. Despite their critical
indicator value, the program lacks the refinement necessary to assign a value to this order.

Many of the areas addressed can be corrected by going into the expert system's interactive mode. In this mode the program calculates entries in a more thorough manner. The trade-off for accuracy is user subjectivity in selecting applicable critical indicators. Another trade-off is the time required to traverse 85 qualifiers in a real time setting.
VII. CONCLUSION

Automated systems exist that combine nursing diagnoses with the nursing care planning function. No automated system on the market integrates nursing diagnoses, nursing care plans and patient classification. The Navy Nurse Corps has a sophisticated patient classification tool. The tool lists critical indicators which adapt readily to automation to produce a classification level.

This thesis project is a programming effort producing a prototype software product marrying three nursing activities—nursing diagnosis, nursing care plans, and patient classification. This project demonstrates one possibility for integrating the nursing care plan using nursing diagnosis and the Navy Nurse Corps' patient classification system. The program extracts points for critical indicators from patient orders.

The greatest incentive for marrying nursing diagnosis, nursing care planning and patient classification is to improve patient care. Improved patient care results from precise documentation and uniform staffing. Nurses acknowledge the need to document plans of care to serve as a guide for all staff members. Nursing is a seven day a week, 24 hour a day profession. Care plans provide a consistent, comprehensive method for delivery of patient care.
care. Without this plan of care, valuable nursing time disappears while continually redefining basic patient care requirements. Successfully implemented automated systems have improved documentation by making it easier, less time-consuming, and more user gratifying.

Patient care is also enhanced through better staffing of nursing units. Staffing levels relate directly to patient care requirements determined by patient classification. The program automates the patient classification process to calculate an accurate and objective measure of patient care requirements. Staffing to a level that can be objectively quantified is a goal. Such a level assures nursing administrators their scarce nursing resources are properly utilized while at the same time providing staffing levels in keeping with safe standards of care.
LIST OF REFERENCES


11. Little, Dolores E. and Carnevali, Doris L., *Nursing Care Planning*


APPENDIX A

DATA DICTIONARY

(Local looping variables omitted)

Module: Intro.Prg
Variable Name: Flash
Aliases: None
Format Of Data: Character
Allowable Value: Chr(145)
Files Variable Used: All modules
Comment: Flash Code specified variable, use in conjunction to displaying screens.

Module: Valid.Prg
Variable Name: Xusepass
Aliases: None
Format Of Data: Character
Allowable Value: String of 5 characters
Files Variable Used: Valid.Prg
Comments: A concatenation of Xusepass1 through Xusepass5 [single characters] to form the individual's password entry. Xusepass is compared with those in the Useinfo.Dbf to determine if the entry received is a valid password.

Module: Valid.Prg
Variable Name: Curuser
Aliases: None
Format Of Data: Characters
Allowable Value: String of up to 23 characters
Files Variable Used: All modules except Intro, Pt_Info and Useinfo
Comments: A concatenation of UFinitial and trim Ulname. Is displayed on the screen based on password entered and name associated with that password in the Useinfo.Dbf. Curuser is also entered as the practitioner or nurse in the Orders.Dbf or Ncaredb.Dbf.

Module: Valid.Prg
Variable Name: Useacc
Aliases: None
Format Of Data: Numeric
Allowable Value: 0 - 4
Files Variable Used: Master.Prg
Comments: When a new user is entered into the system an access level is assigned. This access level allows for privacy and security in the program.

Module: Master.Prg
Variable Name: Omodule
Aliases: None
Format Of Data: Character
Allowable Value: D or N
Files Variable Used: Ward2 and Ward3.Prg
Comments: Serves as a flag when exiting the Ward2 or Ward3.Prg indicating which module called, those pertaining to the physician staff or the nursing staff.

Module: Pt_Info.Prg
Variable Name: Xplname
Aliases: Xdclname,P1name
Format Of Data: Character
Allowable Value: 20 characters for patient’s last name
Files Variable Used: All files except Intro, Valid, Master, Ward and Useinfo.Prg.

Module: Pt_Info.Prg
Variable Name: Xpfname
Aliases: XdcFname,PFname
Format Of Data: Character
Allowable Value: 12 characters for patient’s first name
Files Variable Used: See description above for Xplname.
Comments: See description above for Xplname.

Module: Pt_Info.Prg
Variable Name: Xpmname
Aliases: Xdcmname,Pmname
Format Of Data: Character
Allowable Value: Up to 3 character string.
Files Variable Used: Pt_Info and Dischorg.Prg.
Comments: Represents the patient’s middle initials.

Module: Pt_Info.Prg
Variable Name: Xfmpssn
Aliases: XdcFssn,Fmpssn,Ptfmpssn, Mptfmpssn
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Alias(es)</th>
<th>Module</th>
<th>Variable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xpregno</td>
<td></td>
<td>Pt_Info.Prg</td>
<td>Represents the hospital registration number. Variables with an &quot;X&quot; prefix indicate they are ward, room and bed dependent.</td>
</tr>
<tr>
<td>Xdcprac</td>
<td></td>
<td>Pt_Info.Prg</td>
<td>Represents the patient's physician.</td>
</tr>
<tr>
<td>Pward</td>
<td></td>
<td>Pt_Info.Prg</td>
<td>Represents a ward assignment.</td>
</tr>
<tr>
<td>Prm</td>
<td></td>
<td>Pt_Info.Prg</td>
<td>Represents rooms on the ward.</td>
</tr>
</tbody>
</table>
Module: Pt_Info
Variable Name: Xpbed
Aliases: Pbed
Format Of Data: Character
Allowable Value: "A" or "B"
Files Variable Used: See description above for Xplname.
Comments: See description above for Xplname. Represents beds in a room.

Module: Discharg.Prg
Variable Name: Xppack
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: Discharg.Prg
Comments: Flag to indicate if a patient had been discharged. If .T. Pt_Info.Dbf has discharged patient's database purged.

Module: Ward.Prg
Variable Name: Ourpt
Aliases: Xptl...Xptl2 (Ward2/Ward3.Prg)
Format Of Data: Character
Allowable Value: Xpfname + Xplname
Files Variable Used: All modules except Intro, Valid, Pt_Info, Useinfo, Master and Ward.
Comments: Signifies which patient from the Pt_Info.Dbf has been selected by the user. The variables with an "X" prefix indicates they are ward, room and bed dependent.

Module: Ward.Prg
Variable Name: Ofreq
Aliases: Xdcfreq, NFreq
Format Of Data: Character
Allowable Value: Blank, options in Time.Prg or options in IVC.Prg.
Files Variable Used: All order modules (Transfer, Activity, IVA, Lab, Monitor, Pham1, Pham2, Xray, Xray, Diet, Lung, Routine, US and all Norder*.Prg)
Comments: Indicates frequency of any ordered action.

Module: Ward.Prg
Variable Name: Passdata
Aliases: None
Format Of Data: Character
Allowable Value: "Q" number space number
Files Variable Used: All order modules [see Ofreq]
Comments: Used to pass data to the external expert system. Indicates qualifier and value to be used.

Module: Ward.Prg
Variable Name: Ptpoint
Aliases: Xpoints
Format Of Data: Numeric
Allowable Value: Positive integers >= 0
Files Variable Used: All order modules [see Ofreq]
Comments: Assigns points to orders selected by user to be used in determining the patient classification system.

Module: Ward.Prg
Variable Name: Todayonly
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: All order modules [see Ofreq]
Comments: Assigns a .T. for orders of one day frequency for the patient classification system.

Module: Ward.Prg
Variable Name: Monpoint
Aliases: Xmonpt
Format Of Data: Numeric
Allowable Value: Integers 0 or 6
Files Variable Used: All order modules [see Ofreq]
Comments: Used to evaluate orders in the Monitor .Prg but included in the Orders.Dbf to determine patient classification.

Module: Ward.Prg
Variable Name: Emopoint
Aliases: Xemopt
Format Of Data: Numeric
Allowable Value: Positive integers >= 0
Files Variable Used: All order modules [see Ofreq]

Module: Ward.Prg
Variable Name: Roupoint
Aliases: Xroupt
Format Of Data: Numeric
Allowable Value: Positive integers $\geq 0$

Files Variable Used: All order modules (see Ofreq)

Comments: Used to evaluate orders in the Routine.Prg but included in the Orders.DbF to determine patient classification.

Module: Ward.Prg
Variable Name: Ptselect
Aliases: None
Format Of Data: Character
Allowable Value: Prm + Pbed + [Xpt1 or Xpt2 ... Xpt12]
Files Variable Used: All modules except Intro, Valid, Pt_Info, Useinfo and Master.

Comments: Signifies which patient, the room and bed for screen headers.

Module: Ward.Prg
Variable Name: Morder
Aliases: Order, Xdcorder, Nord
Format Of Data: Character
Allowable Value: Character string up to 27
Files Variable Used: All order modules (see Ofreq)

Comments: Patient orders requiring action on the part of the hospital staff.

Module: Doctor.Prg
Variable Name: Omenu
Aliases: None
Format Of Data: Character
Allowable Value: "1" or " "
Files Variable Used: Doctor, Doc_Menu and all order modules (exc. Norder*.Prg).

Comments: Flag to indicate if a return is to the Master.Prg module or to a doctor level module.

Module: Time.Prg
Variable Name: Timeopt
Aliases: None
Format Of Data: Numeric
Allowable Value: 1 - 41
Files Variable Used: All order modules (see Ofreq) except Transfer.Prg

Comments: Used to determine frequency of order.

Module: Time.Prg
Variable Name: Xtimetime
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 4
Files Variable Used: Time.Prg
VR
OR
7W 7-11 V

Aliases: None
Format Of Data: Character
Allowable Value: Character string of 19
Files Variable Used: Emosup and Teach.Prg
Comments: Receives input for Ncaredb.Dbf related to the teaching and emotional requirements of the patient.

Module: N_Diag.Prg
Variable Name: Nrelate
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 25
Files Variable Used: Relate_1...Relate_4.Prg
Comments: Receives input for Ncaredb.Dbf related to why the patient has the nursing diagnosis chosen.

Module: N_Diag.Prg
Variable Name: Ngoal
Aliases: None
Format Of Data: Character
Allowable Value: Character string 38
Files Variable Used: Goal_1...Goal_4.Prg
Comments: Receives input for Ncaredb.Dbf related to goal achievable by the patient.

Module: N_Diag.Prg
Variable Name: Nassess
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 27
Files Variable Used: Assess_1...Assess_4.Prg
Comments: Receives input for Ncaredb.Dbf relating objective observations and subjective information to the nursing diagnosis selected.

Module: N_Diag.Prg
Variable Name: Assoth
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 27
Files Variable Used: Assess_1...Assess_4.Prg
Comments: Allows an assessment of the patient not currently provided on the screen to be entered.

Module: N_Diag.Prg
Variable Name: Reloth
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 27
Files Variable Used: Assess_1...Assess_4.Prg
Comments: Receives input for Ncaredb.Dbf related to why the patient has the nursing diagnosis chosen.
Comments: Provides an option for a time of day that is not provided on the screen.

Module: IVA.Prg
Variable Name: Morderl
Aliases: None
Format Of Data: Character
Allowable Value: "Start IV of"
"Alternate IV w/"
"Follow IV w/"
"Interrupt IV for"
"Start 2nd IV of"

Files Variable Used: IVA and IVB.Prg
Comments: Initial portion of the patient order for IV therapy.

Module: IVB.Prg
Variable Name: Blood
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: IVB and IVC.Prg
Comments: Flag to indicate whether blood was ordered or not. Significant in the determining of patient classification points.

Module: Lung.Prg
Variable Name: Xliter
Aliases: None
Format Of Data: Character
Allowable Value: "@ 1-2 l/m"
"@ 3-4 l/m"
"@ 5-6 l/m"
"@ 7-8 l/m"
"@ 9-10 l/m"

Files Variable Used: Lung.Prg
Comments: Xliter is concatenated with the screen selection to indicate oxygen flow rate for the patient.

Module: Discont.Prg
Variable Name: Xdcdate
Aliases: Odate
Format Of Data: Date
Allowable Value: Date of the medical order
Files Variable Used: Discont.Prg
Comments: Allows user to review date of an order to determine if medical order should be discontinued.
Module: Discont.Prg
Variable Name: Xordpack
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: Discont.Prg
Comments: Flag to indicate if medical orders are to be discontinued. If .T., deleted orders are purged from the Orders.Dbf.

Module: Nurse.Prg
Variable Name: Nmenu
Aliases: None
Format Of Data: Character
Allowable Value: "1" or "2"
Files Variable Used: Nurse, Nursel, and N_Diag.Prg
Comments: Flag to indicate if a return is to the Master.Prg module or to Nurse.Prg module.

Module: Nurse.Prg
Variable Name: Xlevel
Aliases: None
Format Of Data: Character
Allowable Value: "Category I"
"Category II"
"Category III"
"Category IV"
"Category V"
"Category VI"
Files Variable Used: Nurse.Prg
Comments: Indicates patient classification level.

Module: N_Diag.Prg
Variable Name: Nursdiag
Aliases: None
Format Of Data: Character
Allowable Value: "Comfort, Alteration In: Pain"
"Communication, Impaired: Verbal"
"Impaired Physical Mobility"
"Self-Care Deficit"
Files Variable Used: N_Diag.Prg
Comments: Nursdiag is one of the four values indicated, and directs which branch the program will follow.

Module: N_Diag
Variable Name: Emoteach

59
Aliases: None

Format of Data: Character
Allowable Value: Character string of 25
Files Variable Used: Relate_1...Relate_4.Prg
Comments: Allows a related factor not currently provided on the screen to be entered.

Module: N_Diag.Prg
Variable Name: Goaoth
Aliases: None
Format of Data: Character
Allowable Value: Character string 38
Files Variable Used: Goal_1...Goal_4.Prg
Comments: Allows a patient's goal not currently provided on the screen to be entered.

Module: N_Diag.Prg
Variable Name: Ordath
Aliases: None
Format of Data: Character
Allowable Value: Character string 27
Files Variable Used: Norder*.Prg
Comments: Allows for a nursing order not currently provided on the screen to be entered.

Module: Useinfo
Variable Name: Xufinital
Format of Data: Character
Allowable Value: Any first initial of user
Files Variable Used: All modules [except Intro and Valid] as a concatenation with Xulname.

Module: Useinfo.Prg
Variable Name: Xulname
Aliases: Xdlulname
Format of Data: Character
Allowable Value: Character string of length 20
Files Variable Used: All modules [except Intro and Valid] as a concatenation with Xufinital.
Comment: Character string representing the user's last name. Used as a concatenation with Xufinital to form Curuser.

Module: Useinfo
Variable Name: Xcodeword
Format of Data: Character
Allowable Value: Any 5 characters representing a user's password
Files Variable Used: Valid.Prg

Module: Useinfo
Variable Name: Xaccess
Format Of Data: Numeric
Allowable Value: 0, 1, 2, 3, or 4
Files Variable Used: Master.Prg
APPENDIX B

STRUCTURE CHART
Legend for Structure Chart

- -- Box labelled 1
  Box Description: Do Introduction/Validate User

- -- Box labelled 2
  Box Description: Choose Path

- -- Box labelled 3
  Box Description: Do Admission Department

- -- Box labelled 3.1
  Box Description: Admit Patient

- -- Box labelled 3.2
  Box Description: Discharge Patient

- -- Box labelled 4/5
  Box Description: Select Ward

- -- Box labelled 4.1/5.1
  Box Description: Select Patient

- -- Box labelled 4.1.1
  Box Description: Select Doctor Option

- -- Box labelled 4.1.1.1
  Box Description: Select Medical Orders

- -- Box labelled 4.1.1.2
  Box Description: Discontinue Order

- -- Box labelled 4.1.1.3
  Box Description: Admit/Transfer/Discharge Patient

- -- Box labelled 4.1.1.4
  Box Description: Print/Review Orders

- -- Box labelled 5.1.1
  Box Description: Select Nursing Option

- -- Box labelled 5.1.1.1
  Box Description: Select Nursing Care Plan

- -- Box labelled 5.1.1.2
  Box Description: Review/Print Nursing Care Plan
- -- Box labelled 5.1.1.3
  Box Description: Review/Print Patient Care Requirements

- -- Box labelled 5.1.1.4
  Box Description: Determine Patient Classification Level

- -- Box labelled 6
  Box Description: Do Data Processing Department

- -- Box labelled 6.1
  Box Description: Add New User

- -- Box labelled 6.2
  Box Description: Delete User
APPENDIX C
USER'S MANUAL

This software product is a prototype model for the Navy Nurse Corps. The user's manual, as well as the software product, presupposes a working knowledge of medicine and the normal functioning of a hospital. The user's manual and the software product require a working knowledge of the nursing process using the nursing diagnosis and the patient classification system.

This manual contains four subdivisions: the admission's department section, the physician section, the nursing section and the system's administration section. The admission's department section allows patients to be admitted or discharged. Admission of a patient allows the selection of doctor's and nursing orders. Admission of a patient also initiates the determination of the patient classification. The system administration section allows users access to all or only one of the program sections.

I. Beginning the Program

To begin the program insert disk A:1 into drive A [normally the left sided drive, or the top drive] of your IBM, or compatible, personal computer. The computer should have 640K of internal memory. Next insert disk B:1 into drive B. Turn on the power for the monitor, disk drives [the computer], and printer [for written reports]. The first prompt is for the date. The date format of 4-1-86 is acceptable. The computer also accepts a date format of 4-1-1986. Follow this with <enter>. The next prompt is for time. The format of 14:45 is the least number of keystrokes, however the computer accepts seconds as well [i.e. 14:45:30] <enter>. An A> prompt then appears. To begin the program, type b:proto [capital, mixed or small letters] <enter>.

A manufacturer's introductory screen appears with a prompt of: "Insert System Disk 2 and press ENTER or type CTL-C to abort". Remove disk A:1 and insert disk A:2 into drive A and press <enter>. Another manufacturer's introductory screen temporarily flashes on the monitor. A screen with a Nurse Corps oakleaf and background information, Figure 1, replaces this screen.
Figure 1

Program Passwords

To begin the program press any key to move to Figure 1a which requires the input of a five letter password. Sample passwords for this program are: level 0 -- mouse, level 1 -- lyons, level 2 -- flyup, level 3 -- littl, and level 4 -- getgo. The password allows access further into the program, and level indicates which area a user may enter. Regardless of password used (provided it is an acceptable password, see System's Administration section) the next screen is Figure 2.
**Prototype Master Screen**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

***Select the Desired Option***

1) Admission's Department  
2) Doctor's Master  
3) Nursing Master  
4) System Administration  
0) Sign-Off

**Figure 2**

This screen, the Prototype Master Screen provides a branching point to the four major areas. Depending upon the password used and option chosen, the program moves to Figure 3, 4, 5 or 6. Sign-Off is an option given on most screens to return to Figure 1.

II. Admission's Department Personnel

Access level 0 or 1 will allow access to the Admit/Discharge screen (Figure 3).
A patient can be admitted or discharged, depending on the option selected. Selecting option 1 moves the user to Figure 3.1. This information creates a patient database file.

The Patient Admission Form

The Patient Admission Form (Figure 3.1) consists of 17 input areas.
Patient Admission Form

| Last Name: | Registration No: |
| First Name: | Medical Diagnosis: |
| Mid Initial: | Physician: |
| Rate/Rank: | Prognosis: |
| FMP-SSN: | Allergies: |
| Birthdate: | Nursing Word: |
| Age: | Room Number: |
| Sex: | Bed: |
| Admit Date: | |

Figure 3.1

After typing each category, press <enter> to move to the next category. The amount of information and the acceptable inputs are as follows:

**Last Name:** Allows up to 20 letters in the patient's last name and automatically capitalizes the first letter.

**First Name:** Allows up to 12 letters in the patient's first name and automatically capitalizes the first letter.

**Mid Initial:** Allows up to 3 letters in the patient's middle name to accommodate for No Middle Name (NMN). Capitalizes all letters entered.

**Rank/Rate:** Accepts up to 11 letters and capitalizes all letters entered. Typical formats would include MS3/N/AD, COL/AF/REI or CIVHUM.

**FMP-SSN:** Family Member Prefix (FMP) Code includes the sponsor's Social Security Number (SSN). Valid FMP code numbers and relationships are:

- 01 Sponsor's oldest child (includes stepchildren)
- 02 Sponsor's next oldest child
- 03,04, etc. Sponsor's third oldest, etc.
- 20 Sponsor (active duty, reserve and retired uniformed services personnel: Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service

---

69
and National Oceanic and Atmospheric Administration)

30 Sponsor's spouse
40 Sponsor's dependent mother
45 Sponsor's dependent father
50 Sponsor's dependent mother-in-law
55 Sponsor's dependent father-in-law
60, 61, etc. Other authorized sponsor's dependents
60 All other authorized personnel
[foreign nationals, including foreign military, civilian humanitarians, etc.]

Birthdate: Use the format 08/25/50.
Age: Allows up to 3 letters or numbers. Mixing numbers and letters is possible to accommodate for 11M (11 months old) or 15D (15 days old). Age denotes years unless M or D are filling the third input space.
Sex: Allows one letter input. Valid letters are:
M = Male
F = Female
U = Unknown
Admit Date: Use the format 12/13/85.
Registration No: The local hospital sequential number of in-patients admitted during a specified period of time.
Medical Diagnosis: Diagnosis listed by the admitting physician and listed on the admission authorization form. Enter up to 24 letters.
Physician: Patient's assigned physician, not necessarily the admitting practitioner. Enter up to 24 letters.
Prognosis: Allows entry of up to 3 letters. Allowable prognosis codes and descriptions are:
E Excellent
F Fair
G Good
U Unknown
GRD Guarded
P Poor
Allergies: Patient's allergies as stated in the health record, or by the patient. Enter up to 24 letters.
Nursing Ward: Two words are possible: 2E (a surgical ward) or 3E (a medical ward).
Room Number: Room number is tentatively assigned by the admission department, pending confirmation by the ward personnel. Room number options are 1, 2, or 3.
Bed: Actual bed assignment combines a room number and a bed letter. Bed letter is tentatively assigned by the admission department, pending confirmation by the ward personnel. Bed letter options vary between A and B. Once the patient file is complete, the program returns to Figure 3 for another selection.

Discharging a Patient

Selection 2 (Figure 3) moves the user to Figure 3.2 (Discharge A Patient Screen). A patient is uniquely identified by listing of FMP-SSN. The screen displays one patient's FMP-SSN, name and practitioner at a time so the user can decide which patient to discharge. The user can discharge more than one patient before returning to the Admit/Discharge Screen (Figure 3).

III. Physician Personnel

Figure 2 (Prototype Master Screen) has two valid choices for the physician, 0 (Sign-Off) and 2 (Doctor's Master). Option 0 returns the physician to the Introductory Screen (Figure 1). This selection implies intent to leave the computer session.

Selecting a Patient

Selection 2 (Doctor's Master) advances the physician to Figure 4 (Nurse's Station Selection). The physician is able to choose patient ward or return to the previous screen (Figure 2).
Selection 1 (Figure 4) follows with Figure 4.1a (Patient Selection for Ward 2E). Patients assigned to Ward 2E by the admissions department appear in their room and bed assignments. Choosing any one of the six patients advances the user to Figure 4.1.1, the Doctor's Master Screen.
Figure 4.1.1

Word, room, bed, patient and registration number appears on the second line of each of the screens to assure proper patient identification is present. The identical sequence follows for selection 2 (Patient Selection for ward 3E). Master Screen is an option on most screens and differs slightly from the Sign-Off option. Sign-Off is the appropriate selection if the computer session is over. Master Screen allows the user to select a different patient to enter orders on without requiring the physician to redo the user identification process.

Doctor Selection Categories

Figure 4.1.1 (Doctor's Master Screen) is a branching screen. Selection 1 advances the user to Figure 4.1.1.1 (Doctor's Order Menu). This option allows the physician to enter patient orders associated with medical treatment. Selection 2 moves the user to Figure 4.1.1.2 (Admit/Transfer/Discharge Screen). These orders impact the admission's department as well as the patient care areas. The admissions department must enter the patient into the computer system prior to their selection by the physician for order entry. The selection of ADMIT officially enters the patient admission status in the doctor's orders.
### DOCTOR'S ORDER MENU

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity</td>
<td>6</td>
<td>Pharmacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Diet</td>
<td>7</td>
<td>Radiology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>IV's / Blood</td>
<td>8</td>
<td>Respiratory Therapy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Laboratory Tests</td>
<td>9</td>
<td>Vital Signs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Monitoring</td>
<td>10</td>
<td>Ward Routines</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Select one number (00-12) --- > **

**Figure 4.1.1.1**

**Reviewing Patient Orders**

Selection 3 and 4, of the Doctor's Master Screen vary only in the location of their output. Selection 3 displays patient medical orders on the monitor screen. Figure 4.1.1.3, is a screen output to review medical orders.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:15:45</td>
<td>Start IV of .45 NaCl</td>
<td>Infuse 6 Hr</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Claride</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td>N. Lyon MD</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylose</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platelets</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.3**

Selection 4 provides the same medical order output on the printer. Selection 5 (Discontinue An Order) advances the physician to Figure 4.1.1.4. The screen displays each medical order on the selected patient with the option to discontinue any obsolete orders.

**Selecting Doctor’s Orders**

The Doctor’s Order Menu (Figure 4.1.1.1) provides a menu to select a medical treatment category. A rudimentary selection list of medical orders follows each of the ten major headings. Selection 1 (Figure 4.1.1.1) moves the program to Figure 4.1.1.1a.
<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ambulate ad lib</td>
</tr>
<tr>
<td>2</td>
<td>Ambulate w/ Assistance</td>
</tr>
<tr>
<td>3</td>
<td>Strict Bedrest</td>
</tr>
<tr>
<td>4</td>
<td>Bedrest w/ BFP</td>
</tr>
<tr>
<td>5</td>
<td>Bedside Commode</td>
</tr>
<tr>
<td>6</td>
<td>OOB to Stretcher w/ Assist</td>
</tr>
<tr>
<td>7</td>
<td>Langle Legs</td>
</tr>
<tr>
<td>8</td>
<td>Keep on Back</td>
</tr>
<tr>
<td>9</td>
<td>May Shower</td>
</tr>
<tr>
<td>10</td>
<td>Turn Patient</td>
</tr>
<tr>
<td>11</td>
<td>Turning Frame</td>
</tr>
<tr>
<td>12</td>
<td>Up in Chair w/ Assist</td>
</tr>
<tr>
<td>13</td>
<td>Doctor's Order Screen</td>
</tr>
<tr>
<td>14</td>
<td>Master Screen</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.1a**

Twelve selection criteria follow. When entering a number less than 10, enter either 03 or 3 <enter> to advance the program. Some selections request a time or frequency. These selections are 2, 6, 7, 10, 11, and 12, which move the program to Figure 4.1.1.1b (Select Time/Frequency Option). A list of 39 options follow. Selection 40 is a brief on-line help facility (Figure 4.1.1.1c). A selection of 41 returns the program to the previous screen with no frequency indicated for that order. Options 5, 8, 9, 24, 29, 33, 35, 37 and 39 are one time selections. All other options are ongoing until discontinued.
## SELECT TIME/FREQUENCY OPTION

<table>
<thead>
<tr>
<th>Selection</th>
<th>Time/Frequency Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PRN</td>
<td>Daily</td>
</tr>
<tr>
<td>2) 0 1-2 Hr PRN</td>
<td>0200 2400</td>
</tr>
<tr>
<td>3) 0 2-3 Hr PRN</td>
<td>0400 22 Hr</td>
</tr>
<tr>
<td>4) 2 3-4 Hr PRN</td>
<td>0600 0200</td>
</tr>
<tr>
<td>5) On Call</td>
<td>1000 1200</td>
</tr>
<tr>
<td>6) 12 Hr PC</td>
<td>1400 1600</td>
</tr>
<tr>
<td>7) 24 Hr PC</td>
<td>1800 0000</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.1b**

Selection 2 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible diet options for the selected patient. Options 17 and 18 move the program to Figure 4.1.1.1b (Select Time/Frequency Option). Selection 17 requires the number of bags per 24 hours for continuous tube feedings. Selection 18 requires a frequency for bolus tube feedings.

Selection 3 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible intravenous/blood options. The screen design varies from other medical treatment order screens, to accommodate for the unique characteristics of this order line. Select IV Order (Figure 4.1.1.1e) is the first screen of a series of three. Select IV Order has up to 10 selections. Selections 6 through 8 are one time orders which then returns to the program for another selection. Selection 1 through 5 moves the program to Select IV Solution (Figure 4.1.1.1f). This requires a selection from options 1 through 8. The program moves to Select Infusion Rate (Figure 4.1.1.1g) for the user to select the desired fluid infusion rate. Following the selection of infusion rate, the program returns to Select IV Order (Figure 4.1.1.1e).

Selection 4 from the Doctor's Order Menu (Figure 4.1.1.1) displays laboratory test options. For each selection on the Select Laboratory Test (Figure 4.1.1.1h), the program moves to the Select Time/Frequency Option.
Selection 5 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible monitoring options. For some selections on the Select Monitoring Requirements screen (Figure 4.1.1.1i), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for additional information. The selections requiring time or frequency information include 3, 5, 6, 7, 8, 9, 11, 12, 12, and 15. Other selections are continuous.

Selection 6 from the Doctor's Order Menu (Figure 4.1.1.1) provides pharmacy options. For all selections on the Select Desired Medication / Dosage screens (Figure 4.1.1.1j and Figure 4.1.1.1k), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for frequency of dosage. Each screen contains divisions of major drug categories, of individual drugs, and dosage. A help facility follows (Figure 4.1.1.11) clarifying route abbreviations used on the screen.

Selection 7 from the Doctor's Order Menu (Figure 4.1.1.1) provides radiology options. For all selections on the Select Xray screen (Figure 4.1.1.1m), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for additional scheduling information.

Selection 8 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible respiratory therapy options. For each selection on the Select Respiratory Therapy Options screen (Figure 4.1.1.1n), except 7 (Ventilator is continuous), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b). After selecting a route (option 9 through 13), a flow rate (letter A-E) selection follows.

Selection 9 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible vital signs options. For some selections on the Select Vital Sign Option screen (Figure 4.1.1.1o), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b). Time/Frequency Option screen provides selections for additional information with options 1 and 5 through 11. Departmental policy defines selections 2 through 4.

Selection 10 from the Doctor's Order Menu (Figure 4.1.1.1) provides ward routine selection. For many selections on the Select Ward Routine screen (Figure 4.1.1.1p), the program moves to the Select Time/Frequency
Option (Figure 4.1.1.1b) for added information. Selections advancing the program to the Time/Frequency screen are: 3, 4, 6, 8, 16, 20-23, 28 and 29. Selections regarded as one time only orders are: 2, 5, 7, 12-14 and 24-27. All other selections are ongoing until discontinued (selection 1, 9-11, 15 and 17-19). In the context of this software project, option 4 (Complex Drsg Change) is a dressing change requiring 30 minutes or more to complete. A dressing change requiring less time is a simple dressing change (option 20).

IV. Nursing Personnel

Figure 2 (Prototype Master Screen) has two valid choices for nurses, 0 (Sign-Off) and 3 (Nursing Master). Option 0 returns the nurse to the introductory screen (Figure 1). Option 0 implies intent to leave the computer session.

Patient Selection

Selection 3 (Nursing Master) advances the nurse to Figure 5 (Nurse's Station Selection). The nurse selects the desired ward or returns to the previous screen (Figure 2).

Selection 1 (Figure 5) follows with Figure 5.1a (Patient Selection For Ward 2E). Patients assigned to Ward 2E by the admission's department appear in their room and bed assignments.
** Nurse's Station Selection **

*** Select Nursing Unit to Display Patients ***

1) 2E Surgical ward
2) 3E Medical ward

0) Sign-Off 3) Master Screen

Current user Select one number (0-3) ----> *

Figure 5

** Patient Selection **

---

*** Select Patient ***

- RT BED PATIENT
- 1) 1 A
- 2) 1 B
- 3) 2 A
- 4) 2 B
- 5) 3 A
- 6) 3 B

0) Sign-Off 7) Master Screen

Current user Select one number (0-7) ----> *

Figure 5.1a

Choosing any one of the six patients advances the user to Figure 5.1.1, the Nursing Master Screen. Ward, room, bed, patient and registration number appear on the second line of each of the screens to assure proper patient identification. The identical sequence follows for selection 2, Patient Selection for Ward 3E (Figure 5.1b).
Master Screen is an option on some screens and differs slightly from the Sign-Off option. Sign-Off is the appropriate selection if the computer session is over. Master Screen allows the user to select a different patient to enter a care plan on without requiring the nurse to redo the user identification process.

Nursing's Category Options

Figure 5.1.1 (Nursing Master Screen) is a branching screen.

<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Key</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>*** NURSING MASTER SCREEN ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Enter/Inactivate Nursing Care Plan</td>
<td>5) Review Patient Care Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Review Nursing Care Plan</td>
<td>6) Print Patient Care Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Print Nursing Care Plan</td>
<td>7) Internal Patient Classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) External Patient Classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Master Screen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Selection 1 advances the program to Figure 5.1.1.1 (Select The Desired Nursing Care Plan Function). This option allows the nurse to enter or inactivate a patient's care plan.

Selection 2 and 3, on the Nursing Master Screen vary only in the location of their output. Selection 2 displays the nursing care plan on the screen. Figure 5.1.1.2, is a screen output for Review Nursing Care Plan. Selection 3 provides the same nursing care plan information on the printer. Selection 4 (External Patient Classification) requires the nurse to leave this portion of the prototype project (see Expert System Supplement).
Selection 5, of the Nursing Master Screen (Figure 5.1.1), Review Patient Care Requirements, displays all active orders on the patient. Patient Care Requirements are the total active medical and nursing care orders for a particular patient. Figure 5.1.1.3 is a screen output for Review Patient Care Requirements.

Press -- Ctrl and S -- Keys To Pause The Scrolling If Necessary

Page No. 1
01/12/86

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>10:06:20</td>
<td>Teach Alt Coping Strategies</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>12:08:07</td>
<td>Assist Bed To Wheelchair</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:15</td>
<td>Self/Minimum Care</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:53</td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up In Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Chloride</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/85</td>
<td>10:17:40</td>
<td>Sodium</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:03</td>
<td>Amylose</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>Potassium</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/85</td>
<td>10:19:56</td>
<td>CO2</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platelets</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/85</td>
<td>10:20:19</td>
<td>Glucose</td>
<td>Daily @ O600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:22</td>
<td>Intake &amp; Output</td>
<td>TID</td>
<td>T. Bui MD</td>
</tr>
</tbody>
</table>

Figure 5.1.1.3

Selection 5 provides the same information on the printer. Selection 7 (Internal Patient Classification), gives the patient classification level and point value -- Figure 5.1.1.6 (Appendix F)
Patient: Mary Miser
Is in: Category II
Point Value is: 27

Figure 5.1.1.6

Nursing Diagnosis

Selection 1 on the Nursing Master Screen advances the program to Figure 5.1.1.1 (Select The Desired Nursing Care Plan Function). The nurse has two major choices: selection 1 -- Enter New Care Plan and selection 2 -- Inactivate Portions of Care Plans. Selection 1 advances the program to Figure 5.1.1.1a (Select Nursing Diagnosis).
Of the 52 nursing diagnoses approved through the 5th and 6th National Conferences of the North American Nursing Diagnosis Association a representative four were chosen.

Patient Assessment

Following the selection of one of the diagnoses, the nurse advances to one of the four assessment screens (Figure 5.1.1.1b, 5.1.1.1k, 5.1.1.1q, 5.1.1.1y).
** SELECT NURSING ASSESSMENTS FOR A PATIENT WITH **
** NURSING DIAGNOSIS OF COMFORT ALTERATION IN PAIN **

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Altered Time</td>
<td>7) Guarding Behavior</td>
<td>12) Self-Focusing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Alteration Muscle Tone</td>
<td>8) Impaired Thought Process</td>
<td>13) Talkative</td>
<td></td>
</tr>
<tr>
<td>3) Autonomic Response</td>
<td>9) Narrowing Focus</td>
<td>14) Verbal Complaint</td>
<td></td>
</tr>
<tr>
<td>4) Distraction Behavior</td>
<td>10) Pacing</td>
<td>15) Vocal Complaints (Moans, Crying)</td>
<td></td>
</tr>
<tr>
<td>6) Other Assessment: [.........................]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current user: [...............................]  Select one number (01-16) ====

Figure 5.1.1.1b

Assessments, related factors, goals and nursing orders used are not an inclusive list, but rather generic options to build on. Any assessment, related factor, goal or order can be changed to better reflect the individual nature of their hospital setting. To select any number less than 10, enter either 03 or 3 <enter> to advance the program.

Related Factors and Patient Goals

Following the assessment selection, the program moves to the related factor associated with the diagnosis (Figure 5.1.1.1c, 5.1.1.1i, 5.1.1.1r, 5.1.1.1z). The patient goal screen follows (Figure 5.1.1.1d, 5.1.1.1m, 5.1.1.1s, 5.1.1.1da).
**SELECT A RELATED FACTOR FOR A PATIENT WITH**

**NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Altered Sensation</td>
<td>5)</td>
<td>Surgical Procedure</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>Disease / Condition</td>
<td>6)</td>
<td>Trauma</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>Emotional State</td>
<td>7)</td>
<td>Treatment Regime</td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>Other: [-----------------------------]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (1-7) ****

Figure 5.1.1.1c

---

**SELECT A PATIENT GOAL FOR A PATIENT WITH**

**NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Communicates Pain Free</td>
<td>5)</td>
<td>Other Goals: [-----------------------------]</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>Communicates Experiences Less Pain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>Communicates Experience of Pain More Tolerable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>Demos Skills &amp; Knowledge to Achieve Pt Goals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (1-5) ****

Figure 5.1.1.1d

Nursing Orders

The patient goal selected, triggers the appropriate patient order screen. If patient diagnosis selection is
comfort alteration in: pain, and the goal selected from Figure 5.1.1.1d is 1, 2, 3, or 5. Figure 5.1.1.1e appears. To obtain additional information on some of the nursing orders, the program may advance the nurse to Select Time / Frequency Option (Figure 5.1.1.1g) with its help facility (Figure 5.1.1.1h); a teaching module (Figure 5.1.1.1i) to illicit the type of teaching necessary; or an emotional support screen to determine the type of emotional support required (Figure 5.1.1.1j). With the selection of goal 4, the program displays Figure (5.1.1.1f).

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL**

1) Assess Pain Factors
2) Assess & Evaluate Pain
3) Encour Pt to Use Coping Strategy
4) Give Info & Explain Proc & Tests
5) Other Nursing Orders:
6) Offer PRN Medications
7) Provide Emotional Support
8) Schedule "Quiet Times"
9) Teach Alt Coping Strategies
10) Utilize Diversional Activities

Current User: [User Name]
Select one number (01-10) ———

Figure 5.1.1.1e
** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS **

- Teach Stress Reduction Techniques
  1) Deep Breathing
  2) Progressive Relaxation
  3) Relaxation Response
  4) Diversional Activity
  5) Other: [.................................]

Current User: | Select one number (1-5) ———

* Figure 5.1.1.1f

Each of the four nursing diagnoses follows the same sequence: assessment, related factor, goal and nursing order with generic type responses. The only variation lies in the goal section of the Self-Care Deficit diagnosis (Figure 5.1.1.10a). Levels C through 4 are self-care levels as defined in COMPUTERIZED NURSING CARE PLANNING UTILIZING NURSING DIAGNOSIS and referenced in the main text of the thesis. Current level of care required is also asked for. Current level of care enters into the patient classification determination.

A caveat exists regarding the use of the "other order" option provided by each of the nursing order screens. Many nursing orders are directly linked to the internal processing of the patient classification system. The use of the "other order" may give a more accurate order, but will not enter points into the patient's classification level. If orders are identified that need to be added, and affect the patient classification, they should be incorporated into the program, rather than being typed in.

Inactivate Portion of Care Plan

In addition to selection 1 on the Select Desired Nursing Care Plan Function screen (Figure 5.1.1.1), the nurse can choose to inactivate a portion of the care plan by
selecting option 2. Figure 5.1 displays nursing care plan information for review and inactivation as needed.

V. System Administration Personnel

Access level 0 or 2 will allow the user access to the System Administration section of the program. The target user group for this section is the department responsible for issuing access levels and recording user's information. Figure 6.1 provides the format used to enter user's information.

FIGURE 6.1

--- Add / Delete a User ---

1: Add a user

2: Delete a user

3: Sign-off

Current user: 

Select one number (0-2) ----> *

Figure 6
USER INFORMATION

*** THIS INFORMATION IS CONFIDENTIAL ***

First Initial:
Middle Initial:
Last Name:
Category of Requestor:
Password:
Access Level:

Figure 6.1

The User Information screen consists of 6 input areas. After inputting the information, press enter to move to the next category. The amount of information and the acceptable inputs are as follows:

First Initial: Allows only one character to be entered, automatically capitalizes it, places a period after the letter and advances the user to the next field.

Middle Initial: Parameters are identical to First Initial.

Last Name: Allows entry of up to 20 letters, capitalizes the first letter and advances the user to the next field.

Category of: A three letter field for a coded category.

Requestor: Could include rate, rank or educational background. Used for user information only and is not otherwise incorporated into the program.

Password: A 5 letter or number code selected by the user to log into the system.

Access Level: Authorizes a person to enter different sections of the software project. Five levels of access are available:

0 Unlimited access to all sections of the software project.

1 Restricted to the admission's section of the software project.
expert system supplement

there are two ways for the nurse to obtain a patient classification, externally or internally [selection 4 and 7 respectively on figure 5.1.1 — nurse’s master screen]. selection 4 loads a qualifier and value number for each patient order that corresponds to a critical indicator. this is the expert system information to calculate the patient classification level.

to calculate the external patient classification system choose selection 4, figure 5.1.1. a manufacturer’s sign-off message appears at the bottom of the screen indicating that you are leaving dBase III. remove disk A:2 and insert disk A:3. type b:expert <enter>. the expert program loads into memory the necessary information to calculate the patient classification. the program asks some preliminary questions (three) which require no response except <enter>. the expert system program gives the user an opportunity to see the rules used to arrive at the classification level.

selection 7 of figure 5.1.1 works in a similar manner to selection 4, without leaving the main program. selection 7 provides a much quicker patient classification level, but is not able to provide the user with the information on how the classification was derived.

during the programming phase of this project, medical orders that corresponded to critical indicators were tied to their corresponding medical order, ie. vital signs od receives a patient point value of 1, apnea monitor receives a monitor point value of 6. the reason vital signs has a patient point value and apnea monitor has a monitor point value is because the vital sign’s critical indicator relates directly to critical indicator points. this is not true of an order for an apnea, cardiac or pressure monitor. in the latter case the patient point total would remain at 6 even if three monitors were ordered. where point totals are not additive or do not directly translate to patient points — the cardiac, apnea, temp and pressure monitors;
S&A, SpGr, Guiaq and spin HCT; and emotional support -- special point totals are calculated prior to their translation to a patient point totals.

Listed in Appendix F are qualifiers and their values used to derive the expert system's rules. Through the use of 382 rules, the patient classification level is derived.
### APPENDIX D

**PATIENT CLASSIFICATION CRITICAL INDICATORS**

#### VITAL SIGNS (MANUAL TPR, BP)

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vital signs QID or less</td>
<td>Rectal or axillary temos or apical pulse QID or more</td>
</tr>
<tr>
<td>2</td>
<td>Vital signs q4h or x 8</td>
<td>Fenominal or pedal pulses or FHT q4h or more</td>
</tr>
<tr>
<td>3</td>
<td>Vital signs q12</td>
<td>Tilt tests q4h or more</td>
</tr>
<tr>
<td>4</td>
<td>Vital signs q1h x 24</td>
<td>Post-op, post-puerperal</td>
</tr>
</tbody>
</table>

#### MONITORING

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Intake and output q2h or x 3</td>
<td>Cardiac, respiratory, pressure monitoring (not additional)</td>
</tr>
<tr>
<td>6</td>
<td>Intake and output q12</td>
<td>Transcutaneous monitor</td>
</tr>
<tr>
<td>7</td>
<td>Circulation or fundus checks q2h or x 12</td>
<td>A-line or ICP monitor or Swan Ganz intubation</td>
</tr>
<tr>
<td>8</td>
<td>Heave checks q1h or x 6</td>
<td>A-line or ICP monitor or Swan Ganz intubation</td>
</tr>
<tr>
<td>9</td>
<td>CVP or ICP (monials) q2h or x 12</td>
<td>PACPA wedge reading q4h or x 6</td>
</tr>
<tr>
<td>10</td>
<td>CVP or ICP (monials) q4h or x 12</td>
<td>PACPA wedge reading q2h or x 12</td>
</tr>
</tbody>
</table>

#### ACTIVITIES OF DAILY LIVING

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Intermittent care (≤5 years)</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>12</td>
<td>Self-initiated care (6-12 years)</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>13</td>
<td>Assisted care (≥5 years) - positions null</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>14</td>
<td>Complete care (≥5 years) assist with positioning</td>
<td>Teaching and emotional support</td>
</tr>
</tbody>
</table>

#### FEEDING

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Tube feeding (continuous) - per bag change</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>17</td>
<td>Tube feed (total) adult/child/moments q4h or x 8</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>18</td>
<td>Adult meals &gt; 5 years (upon feed x 2)</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>19</td>
<td>Child meals &gt; 5 years (upon feed x 2)</td>
<td>Teaching and emotional support</td>
</tr>
</tbody>
</table>

#### TREATMENTS/PROCEDURES/MEDICINES

<table>
<thead>
<tr>
<th>Simple</th>
<th>Total</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15 min</td>
<td>1 hour</td>
<td>Teaching and emotional support</td>
</tr>
<tr>
<td>15-30 min</td>
<td>2 hour</td>
<td>Teaching and emotional support</td>
</tr>
</tbody>
</table>

#### RESPIRATORY THERAPY

<table>
<thead>
<tr>
<th>Examples</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral or nebulizer therapy BID or 12</td>
<td>Oral or nebulizer therapy BID or 12</td>
</tr>
<tr>
<td>IPPB or maximum BID or x 1</td>
<td>Oral or nebulizer therapy BID or x 1</td>
</tr>
<tr>
<td>IPPB or maximum q12</td>
<td>Oral or nebulizer therapy BID or x 1</td>
</tr>
<tr>
<td>IPPB or maximum q1h x 2</td>
<td>Oral or nebulizer therapy BID or x 1</td>
</tr>
<tr>
<td>IPPB or maximum q1h x 6</td>
<td>Oral or nebulizer therapy BID or x 1</td>
</tr>
<tr>
<td>Group treat or mask treat</td>
<td>Oral or nebulizer therapy BID or x 1</td>
</tr>
</tbody>
</table>

#### IV THERAPY

<table>
<thead>
<tr>
<th>Examples</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPO change bottle BID or less</td>
<td>NPO change bottle BID or less</td>
</tr>
<tr>
<td>Neuroscans or fracures</td>
<td>Neuroscans or fracures</td>
</tr>
<tr>
<td>Simple change bottle BID or QID</td>
<td>Simple change bottle BID or QID</td>
</tr>
<tr>
<td>Complex (two or more sites) or change bottle q4h or multilumen lines</td>
<td>Complex (two or more sites) or change bottle q4h or multilumen lines</td>
</tr>
</tbody>
</table>

#### TEACHING AND EMOTIONAL SUPPORT

<table>
<thead>
<tr>
<th>Examples</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and emotional support (as needed)</td>
<td>Teaching and emotional support (as needed)</td>
</tr>
<tr>
<td>Group teaching</td>
<td>Group teaching</td>
</tr>
<tr>
<td>Preoperative teaching</td>
<td>Preoperative teaching</td>
</tr>
<tr>
<td>(Must be documented)</td>
<td>(Must be documented)</td>
</tr>
<tr>
<td>Behavior modification, etc</td>
<td>Behavior modification, etc</td>
</tr>
<tr>
<td>Sensory deprivation (i.e., blind, deaf)</td>
<td>Sensory deprivation (i.e., blind, deaf)</td>
</tr>
<tr>
<td>Continous</td>
<td>Continous</td>
</tr>
<tr>
<td>(Must be documented)</td>
<td>(Must be documented)</td>
</tr>
</tbody>
</table>


93
QUALIFIERS

1. Vital signs order is:
   - QID or less
   - q4h or x 6
   - q2h or x 12
   - q1h or x 24
   - Not ordered

   Used in rules: 1-5

2. Rectal or axillary temp order is:
   - Rectal temps less than QID
   - Axillary temps less than QID
   - Rectal temps QID or more
   - Axillary temps QID or more
   - Not ordered

   Used in rules: 6-10

3. Patient order for apical pulse is:
   - Apical pulse less than QID
   - Apical pulse QID or more
   - Not ordered

   Used in rules: 11-13

4. Patient order for femoral pulse is:
   - Femoral pulses are less than q4h
   - Femoral pulses q4h or more
   - Not ordered

   Used in rules: 14-16

5. Patient order for pedal pulse is:
   - Pedal pulses less than q4h
   - Pedal pulses q4h or more
   - Not ordered

   Used in rules: 17-19
6. Patient order for FHT is:

FHT less than q4h
FHT q4h or more
Not ordered

Used in rules: 20-22

7. Patient order for tilt test is:

Tilt test less than q4h
Tilt test q4h or more
Not ordered

Used in rules: 23-25

8. Patient order for postop/post partum/post newborn vital signs is:

Post op vital signs
Post-partum vital signs
Post-newborn vital signs
Not ordered

Used in rules: 26-29

9. Patient order for intake & output is:

Intake & output less than q8h or x 3
Intake & output at least q8h (x 3) but less than q4h (x6)
Intake & output q4h or x 6
Intake & output q2h or x 12
Intake & output q1h or x 24
Not ordered

Used in rules: 30-35

10. Patient order for circulation checks is:

Circulation checks less than q2h or x 12
Circulation checks q2h or x 12
Circulation checks q1h or x 24
Not ordered

Used in rules: 36-39
11. Patient orders for neuro checks is:

- Neuro checks less than q4h or x 6
- Neuro checks q4h or x 6
- Neuro checks q2h or x 12
- Neuro checks q1h or x 24
- Not ordered

Used in rules: 40-44

12. Patient order for CUP manual readings is:

- CUP manual readings less than q2h or x 12
- CUP manual readings q2h or x 12
- CUP manual readings q1h or x 24
- Not ordered

Used in rules: 45-48

13. Patient order for ICP manual readings is:

- ICP manual readings less than q2h or x 12
- ICP manual readings q2h or x 12
- ICP manual readings q1h or x 24
- Not ordered

Used in rules: 49-52

14. Patient order for fundus checks is

- Fundus checks less than q2h or x 12
- Fundus checks q2h or x 12
- Fundus checks q1h or x 24
- Not ordered

Used in rules: 53-56

15. Patient order for transcutaneous monitor is:

- Transcutaneous monitor
- Not ordered

Used in rules: 57, 58

16. Patient order for an A-line set-up is

- A-line set-up
- Not ordered

Used in rules: 59, 60
17. Patient order for an ICP monitor set-up is:

ICP monitor set-up
Not ordered

Used in rules: 61, 62

18. Patient order for Swan-Gantz set-up is:

Swan Ganz set-up
Not ordered

Used in rules: 63, 64

19. Patient order for A-line reading is:

A-line reading less than q2h or x 12
A-line reading q2h or x 12
A-line reading q1h or x 24
Not ordered

Used in rules: 65-68

20. Patient order for ICP monitor reading is:

ICP monitor reading less than q2h or x 12
ICP monitor reading q2h or x 12
ICP monitor reading q1h or x 24
Not ordered

Used in rules: 69-72

21. Patient order for PAP/PA wedge reading is:

PAP/PA wedge reading of less than q4h or x 6
PAP/PA wedge reading q4h or x 6
PAP/PA wedge reading q2h or x 12
PAP/PA wedge reading q1h or x 24
Not ordered

Used in rules: 73-77

22. Patient order for cardiac output is:

Cardiac output less than TID or x 3
Cardiac output less than TID (x 3) but less than q4h
(x 6)
Cardiac output q4h or x 6
Cardiac output q2h or x 12
23. Patient order for ADL is:

- Infant/toddler care (<= 5 years)
- Self/minimal care (adult or child > 5 years)
- Assisted care (> 5 years) positions self
- Complete care (> 5 years) assist with positioning
- Total care (> 5 years) position and skin care q2h

Used in rules: 84-88

24. Patient order for extra linen change and partial bath is:

- Extra linen change and partial bath less than 2x per shift
- Extra linen change and partial bath 2x per shift (or 6x per day)
- Extra linen change and partial bath 4x per shift (or 12x per day)
- Extra linen change and partial bath 8x per shift (or 24x per day)
- Not ordered

Used in rules: 89-93

25. Patient order for turning frame is:

- Turning frame less than q2h
- Turning frame q2h or x 12
- Turning frame q1h or x 24
- Not ordered

Used in rules: 94-97

26. Patient order for peds recreation/observation is:

- Peds recreation/observation - 0-12 yrs (exc NBN)
- Not ordered

Used in rules: 98, 99

27. Patient order for tube feedings is:

- Tube feedings continuous -- less than 1 bag per 24 hours
- Tube feedings continuous -- 1 bag per 24 hours
Tube feedings continuous -- 2 bag per 24 hours
Tube feedings continuous -- 3 bag per 24 hours
Tube feedings continuous -- 4 bag per 24 hours
Tube feedings continuous -- 6 bag per 24 hours
Tube feedings continuous -- 12 bag per 24 hours
Tube feedings continuous -- 24 bag per 24 hours
Tube feedings (bolus) less than q4h or x 6
Tube feedings (bolus) q4h or x 6
Tube feedings (bolus) q2h or x 12
Tube feedings (bolus) q1h or x 24
Not ordered

Used in rules: 100-112

28. Patient order for spoon feeding is:

Adult meals > 5 (spoon feed x 3)
Child meals <= 5 years (spoon feed x 3)
Not ordered

Used in rules: 113-115

29. Patient order for infant/neonate bottled feeding is:

Infant/neonate bottle x 1 feeding
Infant/neonate bottle q4h or x 6
Infant/neonate bottle q2h or x 12
Not ordered

Used in rules: 116-119

30. Patient order for IV insertion is:

IV insertion
Not ordered

Used in rules: 120, 121

31. Patient order for NG insertion is:

NG insertion
Not ordered

Used in rules: 122, 123

32. Patient order for foley insertion / straight catheterization is:

Foley insertion
Straight catheterization of less than 4
Straight catheterization of 4 or more
Not ordered
Used in rules: 124-127

33. Patient order for EKG strip is:
   EKG rhythm strip
   Not ordered
   Used in rules: 128, 129

34. Patient order for surgical prep is:
   Surgical prep
   Not ordered
   Used in rules: 130, 131

35. Patient order for enemas is:
   Enemas
   Not ordered
   Used in rules: 132, 133

36. Patient order for ace wrap/elastic stockings is:
   Ace wrap
   Elastic stockings
   Not ordered
   Used in rules: 134-136

37. Patient order for dressings change is:
   Simple dressing change less than x 2 or BID
   Simple dressing change x 2 or BID
   Simple dressing change x 3 or TID
   Simple dressing change x 4 or QID
   Simple dressing change x 6 or q4h
   Simple dressing change x 12 or q2h
   Simple dressing change x 24 or q1h
   Complex dressing change x 1 or QD
   Complex dressing change x 2 or BID
   Complex dressing change x 3 or TID
   Complex dressing change x 4 or QID
   Complex dressing change x 6 or q4h
   Complex dressing change x 12 or q2h
Complex dressing change x 24 or q1h
Not ordered

Used in rules: 137-151

38. Patient order for tube care (excluding trach) is:

Tube care less than x 2 or BID
Tube care x 2 or BID
Tube care x 3 or TID
Tube care x 4 or QID
Tube care x 6 or q4h
Tube care x 12 or q2h
Tube care x 24 or q1h

Not ordered

Used in rules: 152-159

39. Patient order for Foley care is:

Foley care less than x 2 or BID
Foley care x 2 or BID
Foley care x 3 or TID
Foley care x 4 or QID
Foley care x 6 or q4h
Foley care x 12 or q2h
Foley care x 24 or q1h

Not ordered

Used in rules: 160-167

40. Patient order for S & S is:

S & A x 1 or QD
S & A x 2 or BID
S & A x 3 or TID
S & A x 4 or QID
S & A x 6 or q4h
S & A x 12 or q2h
S & A x 24 or q1h

Not ordered

Used in rules: 168-175

41. Patient order for SpGr is:

SpGr x 1 or QD
SpGr x 2 or BID
SpGr x 3 or TID
SpGr x 4 or QID
SpGr x 6 or q4h
SpGr x 12 or q2h
SpGr x 24 or q1h
Not ordered

Used in rules: 176-183

42. Patient order for Guiac is:

Guiac stools x 1 or QD
Guiac stools x 2 or BID
Guiac stools x 3 or TID
Guiac stools x 4 or QID
Guiac stools x 6 or q4h
Guiac stools x 12 or q2h
Guiac stools x 24 or q1h
Not ordered

Used in rules: 184-191

43. Patient order for spin HCT is:

Spin HCT x 1 or QD
Spin HCT x 2 or BID
Spin HCT x 3 or TID
Spin HCT x 4 or QID
Spin HCT x 6 or q4h
Spin HCT x 12 or q2h
Spin HCT x 24 or q1h
Not ordered

Used in rules: 192-199

44. Patient order for lab studies is:

Lab studies less than x 6
Lab studies x 6 or q4h
Lab studies x 12 or q2h
Lab studies x 24 or q1h
Not ordered

Used in rules: 200-204

45. Patient order for ABG stick is:

ABG sticks, less than 3
ABG sticks, at least 3 but less than 6
ABG sticks x 6
ABG sticks x 12
ABG sticks x 24
Not ordered

Used in rules: 205-210

46. Patient order for blood cultures is:

Blood cultures less than x 3
Blood cultures at least x 3 but less than x 6
Blood cultures x 6
Blood cultures x 12
Blood cultures x 24
Not ordered

Used in rules: 211-216

47. Patient order for medications is:

Medications less than q8h [excluding IV]
Medications q3h - q8h [excluding IV] - up to 12 trips
Medications q2h or more [excluding IV] - > 12 trips
Not ordered

Used in rules: 217-220

48. Patient order for irrigations is:

Irrigation x 4 [QID] or less
Irrigation x 6 or q4h
Irrigation x 12 or q2h
Irrigation x 24 or q1h
Not ordered

Used in rules: 221-225

49. Patient order for instillations is:

Instillations x 4 [QID] or less
Instillations x 6 or q4h
Instillations x 12 or q2h
Instillations x 24 or q1h
Not ordered

Used in rules: 226-230

50. Patient order for restraints is:

2-point
4-point
51. Patient order of assist to chair / stretcher is:

- Assist to chair and return less than x 3 or TID
- Assist to stretcher and return less than x 3 or TID
- Assist to stretcher at least x 3 but less than x 6
- Assist to stretcher x 6 or q4h
- Assist to stretcher x 12 or q2h
- Assist to stretcher x 24 or q1h
- Assist to chair at least x 3 but less than x 6
- Assist to chair x 6 or q4h
- Assist to chair x 12 or q2h
- Assist to chair x 24 or q1h
- Ambulate with assistance x 1
- Ambulate with assistance x 2
- Ambulate with assistance x 3
- Ambulate with assistance x 4
- Ambulate with assistance x 6
- Ambulate with assistance x 12
- Ambulate with assistance x 24
- Not ordered

Used in rules: 236-252

52. Patient order for infant circumcision care is:

- Infant circumcision care
- Not ordered

Used in rules: 253, 254

53. Patient order for phototherapy is:

- Phototherapy
- Not ordered

Used in rules: 255, 256

54. Patient order for isolation is:

- Isolation (change gown and gloves < x 8)
- Isolation (change gown and gloves x 8 or more)
- Not ordered

Used in rules: 257-259
55. Patient order for accompany patient off ward is:

Accompany patient off ward for less than 15 min
Accompany patient off ward for 15 to 30 min
Accompany patient off ward for greater than 30 min
Not ordered

Used in rules: 260-263

56. Patient order for other activities is:

Other activities requiring less than 15 minutes
Other activities requiring 15 to 30 minutes
Other activities requiring 30 min to 1 hr
Special procedures > 1hr < 2 hr (requiring continuous
staff attendance)
Not ordered

Used in rules: 264-268

57. Patient order for chest tube insertion is:

Chest tube insertion
Not ordered

Used in rules: 269, 270

58. Patient order for lumbar puncture is:

Lumbar puncture
Not ordered

Used in rules: 271, 272

59. Patient order for thoracentesis is:

Thoracentesis
Not ordered

Used in rules: 273, 274

60. Patient order for paracentesis is:

Paracentesis
Not ordered

Used in rules: 275, 276
61. Patient order for range of motion is:

- Range of motion exercises less than $x \times 3$ or TID
- Range of motion exercises at least $x \times 3$ but less than $x \times 6$
- Range of motion exercises $x \times 6$ or $q4h$
- Range of motion exercises $x \times 12$ or $q2h$
- Range of motion exercises $x \times 24$ or $q1h$
- Not ordered

Used in rules: 277-282

62. Patient order to transfer in-house or new admission is:

- Transfer in-house (assess and orient)
- New admission (assess and orient)
- Not ordered

Used in rules: 283-285

63. Patient order for O2 therapy or oxyhood is:

- Oxygen therapy
- Oxyhood
- Not ordered

Used in rules: 286-288

64. Patient order for incentive spirometer is:

- Incentive spirometer less than $q4h$
- Incentive spirometer $q4h$
- Incentive spirometer $q2h$
- Incentive spirometer $q1h$
- Not ordered

Used in rules: 289-293

65. Patient order for C&OB is:

- C & OB less than $q4h$
- C & OB $q4h$
- C & OB $q2h$
- C & OB $q1h$
- Not ordered

Used in rules: 294-298

66. Patient order for IPPB or maximist is:

- IPPB or maximist less than BID or $x \times 2$
IPPB or maximist BID or \( \times 2 \)
IPPB or maximist TID or \( \times 3 \)
IPPB or maximist q6h, \( \times 4 \) or QID
IPPB or maximist q4h, \( \times 6 \)
IPPB or maximist q2h, \( \times 12 \)
IPPB or maximist qlh, \( \times 24 \)
Not ordered

Used in rules: 299-306

67. Patient order for croup tent or mist tent is:

Croup tent
Mist tent
Not ordered

Used in rules: 307-309

68. Patient order for chest pulmonary therapy is:

Chest pulmonary therapy less than BID or \( \times 2 \)
Chest pulmonary therapy BID or \( \times 2 \)
Chest pulmonary therapy TID or \( \times 3 \)
Chest pulmonary therapy QID or \( \times 4 \)
Chest pulmonary therapy q4h or \( \times 6 \)
Chest pulmonary therapy q2h or \( \times 12 \)
Chest pulmonary therapy qlh or \( \times 24 \)
Not ordered

Used in rules: 310-317

69. Patient order for suctioning is:

Suctioning less than q4h or \( \times 6 \)
Suctioning q4h or \( \times 6 \)
Suctioning q2h or \( \times 12 \)
Suctioning qlh or \( \times 24 \)
Not ordered

Used in rules: 318-322

70. Patient order for trach care is:

Trach care \( \times 3 \) or less than TID
Trach care at least TID \( \times 3 \) but less than q4h \( \times 6 \)
Trach care \( \times 6 \) or q4h
Trach care \( \times 12 \) or q2h
Trach care \( \times 24 \) or qlh
Not ordered

Used in rules: 323-328
71. Patient order for ventilator is:

Ventilator
Not ordered

Used in rules: 329, 330

72. Patient order for hanging IV bottles is:

KVO (change bottle BID or less)
Simple (change bottle TID or QID)
Complex (change bottle q4h or more, two or more sites, or multilumen tube)
Not ordered

Used in rules: 331-334

73. Patient order for heparin lock or Broviac catheter is:

Heparin lock
Broviac catheter
Not ordered

Used in rules: 335-337

74. Patient order for IV medication is:

IV medication of less than q8h or x 3
IV medication q8h or x 3
IV medication q6h or x 4
IV medication q4h or x 6
IV medication q2h or x 12
IV medication q1h or x 24
Not ordered

Used for rules: 338-344

75. Patient order for blood products is:

Blood products x 1 unit
Blood products x 2 unit
Blood products x 3 unit
Blood products x 4 unit
Blood products x 6 unit
Blood products x 12 unit
Blood products x 24 unit
Not ordered

Used in rules: 345-352
76. Patient order for group teaching is:

Group teaching
Not ordered
Used in rules: 353, 354

77. Patient order for preoperative teaching is:

Preoperative teaching
Not ordered
Used in rules: 355, 356

78. Patient order for structured teaching is:

Structured teaching (i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, discharge)
Not ordered
Used in rules: 357, 358

79. Patient order for emotional support is:

Patient/family support (i.e. anxiety, denial, loneliness)
Not ordered
Used in rules: 359, 360

80. Patient order for modification of lifestyle is:

Emotional support for modification of lifestyle (i.e. new prothesis, body image, behavior modification)
Not ordered
Used in rules: 361, 362

81. Patient order for sensory deprivation is:

Emotional support for sensory deprivation (i.e. retarded, blind, deaf, language barrier, bilateral eye patches, confused, combative, etc.)
Not ordered
Used in rules: 363, 364
82. Patient order for cardiac monitor is:
    Cardiac monitor
    Not ordered
    Used in rules: 365, 366

83. Patient order for apnea monitor is:
    Apnea monitor
    Not ordered
    Used in rules: 367, 368

84. Patient order for temp monitor is:
    Temp monitor
    Not ordered
    Used in rules: 369, 370

85. Patient order for pressure monitor is:
    Pressure monitor
    Not ordered
    Used in rules: 371, 372

86. Patient category is:
    I  Self Care/Minimal Care
    II Moderate Care
    III Acute Care (1 staff to 3 patients)
    IV Intensive Care (1 staff to 2 patients)
    V  Continuous Care (1 staff to 1 patient)
    VI Critical Care (1 staff to 1 patient)
    Used in rules: 377-382
RULES

Rule Number: 1
IF: Vital signs order is: QID or less
THEN: [ptpoint] is given the value [ptpoint] + 1

Rule Number: 2
IF: Vital signs order is: q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 3
IF: Vital signs order is: q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 4
IF: Vital signs order is: q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 5
IF: Vital signs order is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 6
IF: Rectal or axillary temp order is: Rectal temps less than QID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 7
IF: Rectal or axillary temp order is: Axillary temps less than QID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 8
IF: Rectal or axillary temp order is: Rectal temps QID or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 9
IF: Rectal or axillary temp order is: Axillary temps QID or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 10
IF: Rectal or axillary temp order is: Not ordered
THEN: [ptpoint] is given the value: no points awarded
Rule Number: 11
IF: Patient order for apical pulse is: Apical pulse less than QID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 12
IF: Patient order for apical pulse is: Apical pulse QID or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 13
IF: Patient order for apical pulse is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 14
IF: Patient order for femoral pulse is: Femoral pulses less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 15
IF: Patient order for femoral pulse is: Femoral pulses q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 16
IF: Patient order for femoral pulse is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 17
IF: Patient order for pedal pulses is: Pedal pulses less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 18
IF: Patient order for pedal pulses is: Pedal pulses q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 19
IF: Patient order for pedal pulses is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 20
IF: Patient order for FHT is: FHT less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 21
IF: Patient order for FHT is: FHT q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 22
   IF: Patient order for FHT is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 23
   IF: Patient order for tilt test is: Tilt test less than q4h
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 24
   IF: Patient order for tilt test is: Tilt test q4h or more
   THEN: [ptpoint] is given the value: [ptpoint] + 2

Rule Number: 25
   IF: Patient order for tilt test is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 26
   IF: Patient order for post-op/post-partum/post-newborn vital signs is: Post-op
   THEN: [ptpoint] is given the value: [ptpoint] + 6

Rule Number: 27
   IF: Patient order for post-op/post-partum/post-newborn vital signs is: Post-partum
   THEN: [ptpoint] is given the value: [ptpoint] + 6

Rule Number: 28
   IF: Patient order for post-op/post-partum/post-newborn vital signs is: Post-newborn
   THEN: [ptpoint] is given the value: [ptpoint] + 6

Rule Number: 29
   IF: Patient order for post-op/post-partum/post-newborn vital signs is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 30
   IF: Patient order for intake & output is: Intake & output less than q8h or x 3
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 31
   IF: Patient order for intake & output is: Intake & output at least q8h (x 3), but less than q4h (x 6)
   THEN: [ptpoint] is given the value: [ptpoint] + 2
Rule Number: 32
IF: Patient order for intake & output is: Intake & output q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 33
IF: Patient order for intake & output is: Intake & output q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 34
IF: Patient order for intake & output is: Intake & output q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 35
IF: Patient order for intake & output is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 36
IF: Patient order for circulation checks is: Circulation checks less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 37
IF: Patient order for circulation checks is: Circulation checks q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 38
IF: Patient order for circulation checks is: Circulation checks q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 39
IF: Patient order for circulation checks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 40
IF: Patient order for neuro checks is: Neuro checks less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 41
IF: Patient order for neuro checks is: Neuro checks q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 3
Rule Number: 42  
IF: Patient order for neuro checks is: Neuro checks q2h or x 12  
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 43  
IF: Patient order for neuro checks is: Neuro checks q1h or x 24  
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 44  
IF: Patient order for neuro checks is: Not ordered  
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 45  
IF: Patient order for CUP manual readings is: CUP manual readings less than q2h or x 12  
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 46  
IF: Patient order for CUP manual readings is: CUP manual readings q2h or x 12  
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 47  
IF: Patient order for CUP manual readings is: CUP manual readings q1h or x 24  
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 48  
IF: Patient order for CUP manual readings is: Not ordered  
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 49  
IF: Patient order for ICP manual readings is: ICP manual readings less than q2h or x 12  
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 50  
IF: Patient order for ICP manual readings is: ICP manual readings q2h or x 12  
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 51  
IF: Patient order for ICP manual readings is: ICP manual readings q1h or x 24  
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 52
IF: Patient order for ICP manual readings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 53
IF: Patient order for fundus checks is: Fundus checks less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 54
IF: Patient order for fundus checks is: Fundus checks q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 55
IF: Patient order for fundus checks is: Fundus checks q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 56
IF: Patient order for fundus checks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 57
IF: Patient order for transcutaneous monitor is: transcutaneous monitor
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 58
IF: Patient order for transcutaneous monitor is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 59
IF: Patient order for an A-line set-up is: A-line set-up
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 60
IF: Patient order for an A-line set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 61
IF: Patient order for an ICP monitor set-up is: ICP monitor set-up
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 62
IF: Patient order for an ICP monitor set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 63
IF: Patient order for Swan Ganz set-up is: Swan Ganz set-up
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 64
IF: Patient order for Swan Ganz set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 65
IF: Patient order for A-line reading is: A-line reading less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 66
IF: Patient order for A-line reading is: A-line reading q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 67
IF: Patient order for A-line reading is: A-line reading q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 68
IF: Patient order for A-line reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 69
IF: Patient order for ICP monitor reading is: ICP monitor reading less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 70
IF: Patient order for ICP monitor reading is: ICP monitor reading q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 71
IF: Patient order for ICP monitor reading is: ICP monitor reading q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 72
IF: Patient order for ICP monitor reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 73
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of less than q'4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 74
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q'4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 75
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 76
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 77
IF: Patient order for PAP/PA wedge reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 78
IF: Patient order for cardiac output is: Cardiac output less than TID or x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 79
IF: Patient order for cardiac output is: Cardiac output at least TID [x 3] but less than q'4h [x 6]
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 80
IF: Patient order for cardiac output is: Cardiac output q'4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 81
IF: Patient order for cardiac output is: Cardiac output q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 82
IF: Patient order for cardiac output is: Cardiac output q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 83
IF: Patient order for cardiac output is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 84
IF: Patient order for ADL is: Infant/toddler care
[<= 5 years]
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 85
IF: Patient order for ADL is: Self/minimal care (adult or child > 5 years)
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 86
IF: Patient order for ADL is: Assisted care (> 5 years) positions self
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 87
IF: Patient order for ADL is: Complete care (> 5 years) assists with positioning
THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 88
IF: Patient order for ADL is: Total care (> 5 years) position and skin care q2h
THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 89
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath less than 2x per shift
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 90
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath 2x per shift
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 91
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath 4x per shift
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 92
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath 8x per shift
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 93
IF: Patient order for extra linen change and partial bath is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 94
IF: Patient order for turning frame is: Turning frame less than q2h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 95
IF: Patient order for turning frame is: Turning frame q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 96
IF: Patient order for turning frame is: Turning frame q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 28

Rule Number: 97
IF: Patient order for turning frame is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 98
IF: Patient order for peds recreation/observation is: Peds recreation/observation - 0-12 yrs (exc NBN)
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 99
IF: Patient order for peds recreation/observation is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 100
IF: Patient order for tube feedings is: Tube feedings continuous -- less than 1 bag per 24 hours
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 101
IF: Patient order for tube feedings is: Tube feedings continuous -- 1 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 102
IF: Patient order for tube feedings is: Tube feedings continuous -- 2 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 103
IF: Patient order for tube feedings is: Tube feedings continuous -- 3 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 104
IF: Patient order for tube feedings is: Tube feedings continuous -- 4 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 105
IF: Patient order for tube feedings is: Tube feedings continuous -- 6 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 106
IF: Patient order for tube feedings is: Tube feedings continuous -- 12 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 107
IF: Patient order for tube feedings is: Tube feedings continuous -- 24 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 108
IF: Patient order for tube feedings is: Tube feedings (bolus) less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 109
IF: Patient order for tube feedings is: Tube feedings (bolus) q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 5

Rule Number: 110
IF: Patient order for tube feedings is: Tube feedings (bolus) q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 111
IF: Patient order for tube feedings is: Tube feedings (bolus) q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 20
Rule Number: 112
IF: Patient order for tube feedings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 113
IF: Patient order for spoon feedings is: Adult meals
> 5 years [spoon feed x 3]
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 114
IF: Patient order for spoon feedings is: Child meals
< 5 years [spoon feed x 3]
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 115
IF: Patient order for spoon feedings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 116
IF: Patient order for infant/neonate bottle feeding is:
Infant/neonate bottle x 1 feeding
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 117
IF: Patient order for infant/neonate bottle feeding is:
Infant/neonate bottle q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 118
IF: Patient order for infant/neonate bottle feeding is:
Infant/neonate bottle q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 119
IF: Patient order for infant/neonate bottle feeding is:
Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 120
IF: Patient order for IV insertion is: IV insertion
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 121
IF: Patient order for IV insertion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 122
IF: Patient order for NG insertion is: NG insertion
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 123
IF: Patient order for NG insertion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 124
IF: Patient order for foley insertion/straight
  catheterization is: Foley insertion
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 125
IF: Patient order for foley insertion/straight
  catheterization is: straight catheterization of less
  than 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 126
IF: Patient order for foley insertion/straight
  catheterization is: straight catheterization of 4 or
  more
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 127
IF: Patient order for foley insertion/straight
  catheterization is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 128
IF: Patient order for EKG rhythm strip is: EKG rhythm
  strip
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 129
IF: Patient order for EKG rhythm strip is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 130
IF: Patient order for surgical prep is: Surgical prep
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 131
IF: Patient order for surgical prep is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 132
IF: Patient order for enemas is: Enemas
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 133
IF: Patient order for enemas is: Not ordered
THEN: [ptpoint] is given the value: no points awarded
Rule Number: 134
IF: Patient order for ace wrap/elastic stockings is: Ace wrap
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 135
IF: Patient order for ace wrap/elastic stockings is:
Elastic stockings
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 136
IF: Patient order for ace wrap/elastic stockings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 137
IF: Patient order for dressing change is: Simple dressing change less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 138
IF: Patient order for dressing change is: Simple dressing change x 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 139
IF: Patient order for dressing change is: Simple dressing change x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 140
IF: Patient order for dressing change is: Simple dressing change x 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 141
IF: Patient order for dressing change is: Simple dressing change x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 142
IF: Patient order for dressing change is: Simple dressing change x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 143
IF: Patient order for dressing change is: Simple dressing change x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24
Rule Number: 144
IF: Patient order for dressing change is: Complex dressing change x 1
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 145
IF: Patient order for dressing change is: Complex dressing change x 2 or q12h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 146
IF: Patient order for dressing change is: Complex dressing change x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 147
IF: Patient order for dressing change is: Complex dressing change x 4 or qID
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 148
IF: Patient order for dressing change is: Complex dressing change x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 149
IF: Patient order for dressing change is: Complex dressing change x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 150
IF: Patient order for dressing change is: Complex dressing change x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 96

Rule Number: 151
IF: Patient order for dressing change is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 152
IF: Patient order for tube care (not trach) is: Tube care less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 153
IF: Patient order for tube care (not trach) is: Tube care x 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 154
IF: Patient order for tube care (not trach) is: Tube care × 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 155
IF: Patient order for tube care (not trach) is: Tube care × 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 156
IF: Patient order for tube care (not trach) is: Tube care × 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 157
IF: Patient order for tube care (not trach) is: Tube care × 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 158
IF: Patient order for tube care (not trach) is: Tube care × 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 159
IF: Patient order for tube care (not trach) is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 160
IF: Patient order for Foley care is: Foley care less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 161
IF: Patient order for Foley care is: Foley care × 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 162
IF: Patient order for Foley care is: Foley care × 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 163
IF: Patient order for Foley care is: Foley care × 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 164
IF: Patient order for Foley care is: Foley care x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 165
IF: Patient order for Foley care is: Foley care x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 166
IF: Patient order for Foley care is: Foley care x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 167
IF: Patient order for Foley care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 168
IF: Patient order for S & A is: S & A x 1 or qD
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 169
IF: Patient order for S & A is: S & A x 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 170
IF: Patient order for S & A is: S & A x 3 or qID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 171
IF: Patient order for S & A is: S & A x 4 or qID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 172
IF: Patient order for S & A is: S & A x 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 173
IF: Patient order for S & A is: S & A x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 174
IF: Patient order for S & A is: S & A x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 175
IF: Patient order for S & A is: Not ordered
THEN: [roupoint] is given the value: no points awarded
Rule Number: 176
IF: Patient order for Sp Gr is: Sp Gr x 1 or QD
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 177
IF: Patient order for Sp Gr is: Sp Gr x 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 178
IF: Patient order for Sp Gr is: Sp Gr x 3 or TID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 179
IF: Patient order for Sp Gr is: Sp Gr x 4 or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 180
IF: Patient order for Sp Gr is: Sp Gr x 6 or q1h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 181
IF: Patient order for Sp Gr is: Sp Gr x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 182
IF: Patient order for Sp Gr is: Sp Gr x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 183
IF: Patient order for Sp Gr is: Not ordered
THEN: [roupoint] is given the value: no points awarded

Rule Number: 184
IF: Patient order for Guiac stools is: Guiac stools x 1 or QD
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 185
IF: Patient order for Guiac stools is: Guiac stools x 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 186
IF: Patient order for Guiac stools is: Guiac stools x 3 or TID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 187
IF: Patient order for Guiac stools is: Guiac stools x 4
or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 188
IF: Patient order for Guiac stools is: Guiac stools x 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 189
IF: Patient order for Guiac stools is: Guiac stools x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 190
IF: Patient order for Guiac stools is: Guiac stools x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 191
IF: Patient order for Guiac stools is: Not ordered
THEN: [roupoint] is given the value: no points awarded

Rule Number: 192
IF: Patient order for spin HCT is: Spin HCT x 1 or QD
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 193
IF: Patient order for spin HCT is: Spin HCT x 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 194
IF: Patient order for spin HCT is: Spin HCT x 3 or TID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 195
IF: Patient order for spin HCT is: Spin HCT x 4 or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 196
IF: Patient order for spin HCT is: Spin HCT x 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 197
IF: Patient order for spin HCT is: Spin HCT x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 198
IF: Patient order for spin HCT is: Spin HCT x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24
Rule Number: 199
IF: Patient order for spin HCT is: Not ordered
THEN: [group point] is given the value: no points awarded

Rule Number: 200
IF: Patient order for lab studies is: Lab studies less than x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 201
IF: Patient order for lab studies is: Lab studies x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 202
IF: Patient order for lab studies is: Lab studies x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 203
IF: Patient order for lab studies is: Lab studies x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 204
IF: Patient order for lab studies is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 205
IF: Patient order for ABG sticks is: ABG sticks, less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 206
IF: Patient order for ABG sticks is: ABG sticks, at least x 3, but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 207
IF: Patient order for ABG sticks is: ABG sticks x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 208
IF: Patient order for ABG sticks is: ABG sticks x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 209
IF: Patient order for ABG sticks is: ABG sticks x 24
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 210
IF: Patient order for ABG sticks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 211
IF: Patient order for blood cultures is: Blood cultures less than $\times 3$
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 212
IF: Patient order for blood cultures is: Blood cultures at least $\times 3$ but less than $\times 6$
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 213
IF: Patient order for blood cultures is: Blood cultures $\times 6$
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 214
IF: Patient order for blood cultures is: Blood cultures $\times 12$
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 215
IF: Patient order for blood cultures is: Blood cultures $\times 24$
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 216
IF: Patient order for blood cultures is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 217
IF: Patient order for medications is: Medications less than q8h [exclude IV]
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 218
IF: Patient order for medications is: Medications q3h - q8h [exclude IV] - up to 12 trips
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 219
IF: Patient order for medications is: Medications q2h or more [exclude IV] - > 12 trips
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 220
IF: Patient order for medications is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 221
IF: Patient order for irrigations is: Irrigations x 4 (QID) or less
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 222
IF: Patient order for irrigations is: Irrigations x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 223
IF: Patient order for irrigations is: Irrigations x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 224
IF: Patient order for irrigations is: Irrigations x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 225
IF: Patient order for irrigations is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 226
IF: Patient order for instillations is: Instillations x 4 (QID) or less
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 227
IF: Patient order for instillations is: Instillations x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 228
IF: Patient order for instillations is: Instillations x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 229
IF: Patient order for instillations is: Instillations x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 12
Rule Number: 230
IF: Patient order for instillations is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 231
IF: Patient order for restraints is: 2 point
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 232
IF: Patient order for restraints is: 4 point
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 233
IF: Patient order for restraints is: Posey
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 234
IF: Patient order for restraints is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 235
IF: Patient order for assist to chair/stretcher is: Assist to chair less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 236
IF: Patient order for assist to chair/stretcher is: Assist to stretcher less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 237
IF: Patient order for assist to chair/stretcher is: Assist to stretcher by at least 3 but less than 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 238
IF: Patient order for assist to chair/stretcher is: Assist to stretcher x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 239
IF: Patient order for assist to chair/stretcher is: Assist to stretcher x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 240
IF: Patient order for assist to chair/stretcher is: Assist to stretcher x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 241
IF: Patient order for assist to chair/stretcher is:
    Assist to chair at least x 3 but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 242
IF: Patient order for assist to chair/stretcher is:
    Assist to chair x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 243
IF: Patient order for assist to chair/stretcher is:
    Assist to chair x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 244
IF: Patient order for assist to chair/stretcher is:
    Assist to chair x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 245
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 1
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 246
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 2
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 247
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 3
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 248
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 4
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 249
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 6
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 250
IF: Patient order for assist to chair/stretcher is:
    Ambulate with assistance x 12
THEN: [ptpoint] is given the value [ptpoint] + 24
Rule Number: 251
IF: Patient order for assist to chair/stretcher is: Ambulate with assistance x 24
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 252
IF: Patient order for assist to chair/stretcher is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 253
IF: Patient order for infant circumcision care is: Infant circumcision care
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 254
IF: Patient order for infant circumcision care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 255
IF: Patient order for phototherapy is: Phototherapy
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 256
IF: Patient order for phototherapy is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 257
IF: Patient order for isolation is: Isolation (change gown and gloves less than x 8)
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 258
IF: Patient order for isolation is: Isolation (change gown and gloves x 8 or more)
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 259
IF: Patient order for isolation is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 260
IF: Patient order for accompany patient off ward is: Accompany patient off ward for less than 15 min
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 261
IF: Patient order for accompany patient off ward is:
Accompany patient off ward for 15 to 30 min
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 2 \)

Rule Number: 262
IF: Patient order for accompany patient off ward is:
Accompany patient off ward for greater than 30 min
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 4 \)

Rule Number: 263
IF: Patient order for accompany patient off ward is: Not ordered
THEN: \[ \text{ptpoint} \] is given the value: no points awarded

Rule Number: 264
IF: Patient order for other activities is: Other activities requiring less than 15 minutes
THEN: \[ \text{ptpoint} \] is given the value: no points awarded

Rule Number: 265
IF: Patient order for other activities is: Other activities requiring 15 to 30 minutes
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 2 \)

Rule Number: 266
IF: Patient order for other activities is: Other activities requiring 30 min to 1 hour
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 4 \)

Rule Number: 267
IF: Patient order for other activities is: Special procedures > 1 hr < 2 hr (requiring continuous staff attendance)
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 8 \)

Rule Number: 268
IF: Patient order for other activities is: Not ordered
THEN: \[ \text{ptpoint} \] is given the value: no points awarded

Rule Number: 269
IF: Patient order for chest tube insertion is: Chest tube insertion
THEN: \[ \text{ptpoint} \] is given the value \( \text{ptpoint} + 4 \)

Rule Number: 270
IF: Patient order for chest tube insertion is: Not ordered
THEN: \[ \text{ptpoint} \] is given the value: no points awarded

Rule Number: 271
IF: Patient order for lumbar puncture is: Lumbar
Rule Number: 272
IF: Patient order for lumbar puncture is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 273
IF: Patient order for thoracentesis is: Thoracentesis ordered
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 274
IF: Patient order for thoracentesis is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 275
IF: Patient order for paracentesis is: Paracentesis
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 276
IF: Patient order for paracentesis is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 277
IF: Patient order for range of motion is: Range of motion exercises less than x 3 or TID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 278
IF: Patient order for range of motion is: Range of motion exercises at least x 3 but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 279
IF: Patient order for range of motion is: Range of motion exercises x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 280
IF: Patient order for range of motion is: Range of motion exercises x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 281
IF: Patient order for range of motion is: Range of motion exercises x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 32
Rule Number: 282
IF: Patient order for range of motion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 283
IF: Patient order to transfer in-house or new admission is: Transfer in-house (assess and orient)
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 284
IF: Patient order to transfer in-house or new admission is: New admission (assess and orient)
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 285
IF: Patient order to transfer in-house or new admission is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 286
IF: Patient order for O2 therapy or oxyhood is: Oxygen therapy
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 287
IF: Patient order for O2 therapy or oxyhood is: Oxyhood
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 288
IF: Patient order for O2 therapy or oxyhood is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 289
IF: Patient order for incentive spirometer is: Incentive spirometer less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 290
IF: Patient order for incentive spirometer is: Incentive spirometer q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 291
IF: Patient order for incentive spirometer is: Incentive spirometer q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 292
IF: Patient order for incentive spirometer is: Incentive
Rule Number: 293
IF: Patient order for incentive spirometer is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 294
IF: Patient order for C&DB is: C&DB less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 295
IF: Patient order for C&DB is: C&DB q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 296
IF: Patient order for C&DB is: C&DB q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 297
IF: Patient order for C&DB is: C&DB q1h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 298
IF: Patient order for C&DB is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 299
IF: Patient order for IPPB or maximist is: IPPB or maximist less than BID or x 2
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 300
IF: Patient order for IPPB or maximist is: IPPB or maximist BID or x 2
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 301
IF: Patient order for IPPB or maximist is: IPPB or maximist TID or x 3
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 302
IF: Patient order for IPPB or maximist is: IPPB or maximist QID or x 4
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 303
IF: Patient order for IPPB or maximist is: IPPB or
maximist q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 304
IF: Patient order for IPPB or maximist is: IPPB or
maximist q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 305
IF: Patient order for IPPB or maximist is: IPPB or
maximist q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 306
IF: Patient order for IPPB or maximist is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 307
IF: Patient order for croup tent or mist tent is: Croup
tent
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 308
IF: Patient order for croup tent or mist tent is: Mist
tent
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 309
IF: Patient order for croup tent or mist tent is: Not
ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 310
IF: Patient order for chest pulmonary therapy is: Chest
pulmonary therapy less than BID or x 2
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 311
IF: Patient order for chest pulmonary therapy is: Chest
pulmonary therapy BID or x 2
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 312
IF: Patient order for chest pulmonary therapy is: Chest
pulmonary therapy TID or x 3
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 313
IF: Patient order for chest pulmonary therapy is: Chest
pulmonary therapy QID or x 4
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 314
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 315
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 316
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 317
IF: Patient order for chest pulmonary therapy is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 318
IF: Patient order for suctioning is: Suctioning less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 319
IF: Patient order for suctioning is: Suctioning q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 320
IF: Patient order for suctioning is: Suctioning q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 321
IF: Patient order for suctioning is: Suctioning q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 322
IF: Patient order for suctioning is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 323
IF: Patient order for trach care is: Trach care less
than x 3 or TID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 324
IF: Patient order for trach care is: Trach care at least TID (or x 3) but less than q4h (x 6)
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 325
IF: Patient order for trach care is: Trach care q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 326
IF: Patient order for trach care is: Trach care q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 327
IF: Patient order for trach care is: Trach care q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 328
IF: Patient order for trach care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 329
IF: Patient order for ventilator is: Ventilator
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 330
IF: Patient order for ventilator is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 331
IF: Patient order for hanging IV bottles is: KVO (change bottle BID or less)
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 332
IF: Patient order for hanging IV bottles is: Simple
(change bottle TID or QID)
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 333
IF: Patient order for hanging IV bottles is: Complex
(change bottle q4h or more, two or more sites, or multilumen tube)
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 334
IF: Patient order for hanging IV bottles is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 335
IF: Patient order for heparin lock or Broviac catheter is: Heparin lock
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 336
IF: Patient order for heparin lock or Broviac catheter is: Broviac catheter
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 337
IF: Patient order for heparin lock or Broviac catheter is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 338
IF: Patient order for IV medications is: IV medications of less than q3h or x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 339
IF: Patient order for IV medications is: IV medications of q8h or x 3
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 340
IF: Patient order for IV medications is: IV medications of q6h or x 4
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 341
IF: Patient order for IV medications is: IV medications of q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 342
IF: Patient order for IV medications is: IV medications of q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 343
IF: Patient order for IV medications is: IV medications of q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 344
IF: Patient order for IV medications is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 345
IF: Patient order for blood products is: Blood products x 1 unit
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 346
IF: Patient order for blood products is: Blood products x 2 unit
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 347
IF: Patient order for blood products is: Blood products x 3 unit
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 348
IF: Patient order for blood products is: Blood products x 4 unit
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 349
IF: Patient order for blood products is: Blood products x 6 unit
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 350
IF: Patient order for blood products is: Blood products x 12 unit
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 351
IF: Patient order for blood products is: Blood products x 24 unit
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 352
IF: Patient order for blood products is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 353
IF: Patient order for group teaching is: Group teaching
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 354
IF: Patient order for group teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded
Rule Number: 355
IF: Patient order for preoperative teaching is: Preoperative teaching
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 356
IF: Patient order for preoperative teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 357
IF: Patient order for structured teaching is: Structured teaching [i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, discharge]
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 358
IF: Patient order for structured teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 359
IF: Patient order for emotional support is: Patient/family support [i.e. anxiety, denial, loneliness, etc.]
THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 360
IF: Patient order for emotional support is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 361
IF: Patient order for modification of lifestyle is: Emotional support for modification of lifestyle [i.e. new prothesis, body image, behavior modification, etc.]
THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 362
IF: Patient order for modification of lifestyle is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 363
IF: Patient order for sensory deprivation is: Emotional support for sensory deprivation [i.e. retarded, blind, deaf, language barrier, bilateral eye patches, confused, combative, etc.]
THEN: [emopoint] is given the value [emopoint] + 6
Rule Number: 364
IF: Patient order for sensory deprivation is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 365
IF: Patient order for cardiac monitor is: Cardiac monitor
THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 366
IF: Patient order for cardiac monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 367
IF: Patient order for apnea monitor is: Apnea monitor
THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 368
IF: Patient order for apnea monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 369
IF: Patient order for temp monitor is: Temp monitor
THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 370
IF: Patient order for temp monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 371
IF: Patient order for pressure monitor is: Pressure monitor
THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 372
IF: Patient order for pressure monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 373
IF: [monpoint] > 0
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 374
IF: [roupoint] > 5
THEN: [ptpoint] is given the value [ptpoint] + [roupoint]

Rule Number: 375
IF: [emopoint] > 0 and [emopoint] < 11
THEN: [ptpoint] is given the value [ptpoint] + [emopoint]

Rule Number: 376
IF: [emopoint] > 10
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 377
IF: [ptpoint] >= 0 and [ptpoint] < 13
THEN: Patient category is: I Self Care/Minimal Care

Rule Number: 378
IF: [ptpoint] > 12 and [ptpoint] < 32
THEN: Patient category is: II Moderate Care

Rule Number: 379
IF: [ptpoint] > 31 and [ptpoint] < 64
THEN: Patient category is: III Acute Care (1 staff to 3 patients)

Rule Number: 380
IF: [ptpoint] > 63 and [ptpoint] < 96
THEN: Patient category is: IV Intensive Care (1 staff to 2 patients)

Rule Number: 381
IF: [ptpoint] > 95 and [ptpoint] < 146
THEN: Patient category is: V Continuous Care (1 staff to 1 patients)

Rule Number: 382
IF: [ptpoint] > 145
THEN: Patient category is: VI Critical Care (1 staff to 1 patients)
APPENDIX E

PROGRAM LISTINGS

******** INTRO.PRG *********

- Author: Gary R. Hormeyer LCDR NC USN
- Date: 26 November 1985
- Screen Generated By: The Software Bottling Company Of New York, c1985
- Purpose: Introductory screen for the prototype model.
- Input Files Used: Intro.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: None
- Routine Called: Valid.Prg
- Modification Date: 18 February 1986

-- Screen Input Program For Intro --

Set Procedure To B:Procfile
Do Setup
Public Flash
Flash = Chr(145)

Do While .T.

-- Screen display B:Intro.Scr --

Set Procedure To B:Procfile
Set Color To W+/B, /
Clear
?? Flash+"S.B:Intro.Scr/"
Set Color To W+/B, /W
@ 24,0
Set Console Off
Wait
Set Console On
Do B:Valid

Enddo
**** PROCFILE.PRG ************

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 1 December 1985
- Purpose: See comments above each procedure.
- Input Files Used: None
- Output Files Used: Orders and Ncaredb.Dbf
- Calling Routine: All modules
- Routine Called: None
- Modification Date: 18 February 1986

* -- Screen headers after patient selection -- *

Procedure Headings

@ 2,3 Say Ptselect
@ 2,42 Say Ptregno
@ 2,56 Say Date[
@ 2,65 Say Time[
@ 22,3 Say Curuser

Return

* -- Used to reset pointer and put data from variable --
* -- names into Orders.Dbf -- *

Procedure Repload

Store DTDC(Date[]) To Now
Use B:Orders
Do While .Not. EOF[
  Skip
Enddo
Append Blank
Replace Order With Morder
Replace Fmpssn With PtFmpssn
Replace Freq With OFreq
Replace Otime With Time[
Replace Odate With Now
Replace Proc With Curuser
Replace Expertsys With Passdata
Replace Onlytoday With Todayonly
Replace Critical With Ptpoint
Replace Module With Omodule
Replace Monpt With Monpoint
Replace Emopt With Emopoint
Replace Roupt With Roupoint

Return
* -- Used to reset pointer and put data from variable
* -- names into Ncaredb.Dbf --

Procedure Repnrd

Use B:Ncaredb
Do While Not. EOF()
    Skip
Enddo
Append Blank
Replace Nfmpssn With Ptfmpssn
Replace Norder With Morder
Replace Ntime With Time[]
Replace Ndate With Date[]
Replace Nurse With Curuser
Replace Ndiag With Nursdiag
Replace Assess With Nassess
Replace Relate With Nrelate
Replace Goal With Ngoal
Replace Nfreq With OFreq
Replace Emotea With Emoteach
Return

* -- Determine the current nursing care level --

Procedure Current

Xgoa4cur = "B"
@ 23,67 Get Xgoa4cur Pict "!"
Read
Do While .Not. (Xgoa4cur = "A" .Or. Xgoa4cur = "B" .Or. Xgoa4cur = "C" .Or. Xgoa4cur = "D" .Or. Xgoa4cur = "E")
    @ 23,67 Clear
    Store " " To Xgoa4cur
    @ 24,0 Say "Re-Enter Letter A, B, C, D or E"
    @ 23,67 Get Xgoa4cur Pict "!"
    Read
Enddo

* -- Assign value to letter selected --

Do Case
    Case Xgoa4cur = "A"
        Morder = "Infant/Toddler Care"
        Passdata = "023 1"
        Ptpoint = 6
    Case Xgoa4cur = "B"
        Morder = "Self/Minimum Care"

150
Passdata = "Q23 2"
Ptpoint = 2
Case Xgoa4cur = "C"
  Morder = "Assisted Care"
  Passdata = "Q23 3"
Ptpoint = 6
Case Xgoa4cur = "D"
  Morder = "Complete Care"
  Passdata = "Q23 4"
Ptpoint = 14
Case Xgoa4cur = "E"
  Morder = "Total Care"
  Passdata = "Q23 5"
Ptpoint = 32
Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for oral, IM or subq medication
* -- category options --

Procedure Regmeds

Do Case
  Case [Timeopt < 25 .Or. Timeopt = 41]
    * -- Less than 3 or TID
    Passdata = "Q47 1"
Ptpoint = 0
  Case [Timeopt > 24 .And. Timeopt < 36]
    * -- 3 or TID up to 12 trips
    Passdata = "Q47 2"
Ptpoint = 2
  Case [Timeopt > 35 .And. Timeopt < 40]
    * -- More than 12 trips
    Passdata = "Q47 3"
Ptpoint = 4
Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for laboratory category options --

Procedure Labcount

Do Case
  Case [Timeopt < 34 .Or. Timeopt = 41]
    Passdata = "Q44 1"
Ptpoint = 0
Case (Timeopt = 34 .Or. Timeopt = 35)
  Passdata = "044 2"
  Pptpoint = 2
Case (Timeopt = 36 .Or. Timeopt = 37)
  Passdata = "044 3"
  Pptpoint = 4
Case (Timeopt = 38 .Or. Timeopt = 39)
  Passdata = "044 4"
  Pptpoint = 8
Endcase
Return

* -- Determine the liter flow rate of oxygen -- *

Procedure Liter

Xliteropt = "A"
@ 23,66 Get Xliteropt Pict "!"
Read
  @ 23,66 Clear
  Store " " To Xliteropt
  @ 24,0 Say "Re-Enter Letter A, B, C, D or E"
  @ 23,66 Get Xliteropt Pict "!
  Read
Enddo

* -- Assign value to letter selected -- *
Do Case
  Case Xliteropt = "A"
    Xliter = "@ 1-2 1/m"
  Case Xliteropt = "B"
    Xliter = "@ 3-4 1/m"
  Case Xliteropt = "C"
    Xliter = "@ 5-6 1/m"
  Case Xliteropt = "D"
    Xliter = "@ 7-8 1/m"
  Case Xliteropt = "E"
    Xliter = "@ 9-10 1/m"
Endcase
Return

* -- Used to evaluate the proper value to pass to the ex-
* -- pert system for IV medication category options -- *
Procedure IVmeds

Do Case
  Case [Timeopt < 25 .Or. Timeopt = 41]
    * -- Less than Q8h or TID
    Passdata = "Q74 1"
    Ptpoint = 0
  Case [Timeopt > 24 .And. Timeopt < 31]
    * -- Q6h or TID
    Passdata = "Q74 2"
    Ptpoint = 2
  Case [Timeopt > 30 .And. Timeopt < 34]
    * -- Q8h or x 4
    Passdata = "Q74 3"
    Ptpoint = 3
  Case [Timeopt = 34 .Or. Timeopt = 35]
    * -- Q4h or x 6
    Passdata = "Q74 4"
    Ptpoint = 4
  Case [Timeopt = 36 .Or. Timeopt = 37]
    * -- Q2h or x 12
    Passdata = "Q74 5"
    Ptpoint = 8
  Case [Timeopt = 38 .Or. Timeopt = 39]
    * -- Q1h or x 24
    Passdata = "Q74 6"
    Ptpoint = 16
Endcase
Return

* -- Initialize variables in the order modules --*

Procedure Startup

Ofreq = " "
Ptpoint = 0
Passdata = " "
Todayonly = "F"
EmoPoint = 0
Monpoint = 0
Roupoint = 0
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for range of motion category --
Procedure Range

Do Case
  Case (Timeopt < 25 .Or. Timeopt = 41)
    * -- Less than x 3
    Passdata = "Q61 1"
    Ptpoint = 0
  Case (Timeopt > 24 .And. Timeopt < 34)
    * -- X 3 or less than x 6
    Passdata = "Q61 2"
    Ptpoint = 4
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- X 6 or Q4h
    Passdata = "Q61 3"
    Ptpoint = 8
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- X 12 or Q2h
    Passdata = "Q61 4"
    Ptpoint = 16
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- X 24 or Q1h
    Passdata = "Q61 5"
    Ptpoint = 32
Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for cough and deep breathe category
* -- option --

Procedure Cough

Do Case
  Case (Timeopt < 34 .Or. Timeopt = 41)
    * -- Less than Q4h or x 6
    Passdata = "Q65 1"
    Ptpoint = 0
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- Q4h or x 6
    Passdata = "Q65 2"
    Ptpoint = 2
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- Q2h or x 12
    Passdata = "Q65 3"
    Ptpoint = 4
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- Q1h or x 24
Passdata = "QAS 4"
Ptpoint = 8
Endcase
Return

* -- Sets up the initial environment for each module --

Procedure Setup

Clear
Set Escape On
Set Talk Off
Set Echo Off
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for S&A, specific gravity, Guiac
* -- and spin Hct category option --

Procedure Routine

Do Case
   Case [Timeopt < 5 .Or. Timeopt = 41]
      * -- No specific frequency ordered
      Roupoint = 0
   Case [Timeopt > 4 .And. Timeopt < 22]
      * -- X 1 or QD
      Roupoint = 1
   Case [Timeopt > 21 .And. Timeopt < 25]
      * -- X 2 or BID
      Roupoint = 2
   Case [Timeopt > 24 .And. Timeopt < 31]
      * -- X 3 or I10
      Roupoint = 3
   Case [Timeopt > 30 .And. Timeopt < 34]
      * -- X 4 or Q10
      Roupoint = 4
   Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- X 6 or Q4h
      Roupoint = 6
   Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- X 12 or Q2h
      Roupoint = 12
   Case [Timeopt = 38 .Or. Timeopt = 39]
      * -- X 24 or Q1h
      Roupoint = 24
Endcase
Return
** VALID.PRG ******

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 2 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Evaluate the validity of the password used.
* Input Files Used: Valid.Scr and Procfile.Prg
* Output Files Used: Useinfo.Dbf
* Calling Routine: Intro.Prg
* Routine Called: Master.Prg
* Modification Date: 18 February 1986

-- Screen Input Program For Valid --

Do Setup
Public Xusepass,Curuser,Useacc
Use B:Useinfo
Xusepass = Space(5)
Xusepass1 = Space(1)
Xusepass2 = Space(1)
Xusepass3 = Space(1)
Xusepass4 = Space(1)
Xusepass5 = Space(1)

Do While .T.

-- Screen Display A:Valid.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Valid.Scr/"
Set Color To W+/B,W+/B
@ 13,43

-- Places an "X" on the screen to mask the password entered --

Set Console Off
Wait To Xusepass1
@ 13,43 Say 'X'
Wait To Xusepass2
@ 13,45 Say 'X'
Wait To Xusepass3
@ 13,47 Say 'X'
Wait To Xusepass4
@ 13,49 Say 'X'
Wait To Xusepass5
@ 13,51 Say 'X'
Xusepass =;
Upper(Xusepass1+Xusepass2+Xusepass3+Xusepass4+Xusepass5)
Set Console On

* -- Evaluates the password entered -- *

Locate For Xusepass = Codeword
If (Xusepass <> Codeword).And. EOF()
   @ 24,15 Say "INVALID PASSWORD -- HIT ANY KEY"
   @ 24,51 Say "AND RE-ENTER"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
Store Ufinitial + ' ' + Trim(Ulname) To Curuser
Store Access To Useacc
@ 24,0
@ 23,80 Clear
@ 24,7 Say "Your Password Has Been Accepted -- "
@ 24,42 Say "Please Press A Key To Continue"
Set Console Off
Wait
Set Console On
Do B:Master

Enddo
**** MASTER.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 26 November 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Menu program to branch between the admission's department, the database administration and the patient care personnel.
- Input Files Used: Master.Scr and Profile.Prg
- Output Files Used: None
- Calling Routine: Uolid.Prg
- Routine Called: Admit, Ward or Addelete.Prg
- Modification Date: 4 February 1986

Do Setup
Public Xmasopt,Omodule
Omodule = Space[1]

Do While .T.

* -- Screen Display B:Master.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Master.Scr/
Set Color To W+/B,W+/B
Xmasopt = 0
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 22,3 Say Curuser
@ 22,67 Get Xmasopt Pict "9" Range 0,4
Read

* -- Evaluate action based on the option selected --
* -- Validate user's access to area selected --

Do Case

Case Xmasopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master
Case Xmasopt = 1
* -- Admission's Department
Do Case
  Case Useacc = 2 Or. Useacc = 3 Or. Useacc = 4
    @ 24,16 Say "Access Not Allowed -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
  Loop
  Case Useacc = 0 Or. Useacc = 1
    Do B:Admit
Endcase

Case Xmasopt = 2
* -- Doctor Master
Do Case
  Case Useacc = 1 Or. Useacc = 2 Or. Useacc = 3
    @ 24,16 Say "Access Not Allowed -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
  Loop
  Case Useacc = 0 Or. Useacc = 4
    Omodule = "D"
    Do B:Ward
Endcase

Case Xmasopt = 3
* -- Nursing Master
Do Case
  Case Useacc = 1 Or. Useacc = 2 Or. Useacc = 4
    @ 24,16 Say "Access Not Allowed -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
  Loop
  Case Useacc = 0 Or. Useacc = 3
    Omodule = "N"
    Do B:Ward
Endcase

Case Xmasopt = 4
* -- System Administration
Do Case
  Case Useacc = 1 Or. Useacc = 3 Or. Useacc = 4
    @ 24,16 Say "Access Not Allowed -- Press "
    @ 24,44 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop
Case Useacc = 0 .Or. Useacc = 2
   Do B:Addelete
Endcase
Endcase
Release Xmasopt
Enddo
--- ADMIT.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 9 January 1986
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: Allows the admitting personnel to choose to admit or discharge a patient.
* Input Files Used: Admit.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Master.Prg
* Routine Calls: Pt_Info or Dischag.Prg
* Modification Date: 25 January 1986

--- Screen Input Program For Admit ---

Do Setup
Public Xadmitopt

Do While .T.

* -- Screen Display B:Admit.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash"S:B:Admit.Scr/"
Set Color To W+/B,W+/B
Xadmitopt = 0
@ 22,3 Say Curuser
@ 22,67 Get Xadmitopt Pict "9" Range 0,2
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xadmitopt = 0
* -- Sign-Off
  Close Databases
  Release All
  Close Procedure
  Return To Master

Case Xadmitopt = 1
* -- Admit A Patient
  Do B:Pt_Info
  Loop
Case Xadmitopt = 2
  Do B:Discharge A Patient
  Loop
Endcase
Release Xadmitopt
Enddo
Purpose: Add a patient to the patient database file.

Input Files Used: Pt_Info.Scr and Procfile.Prg

Output Files Used: Pt_Info.DbF

Calling Routine: Admit.Prg

Routine Called: None

Modification Date: 26 January 1986

--- Screen Input Program for Pt_Info ---

Do Setup
Public Xplname, Xpfname, Xpmname, Xraterank, Xfmpssan
Public Xpbdate, Xpage, Xpsex, Xpadmdate, Xpregno
Public Xpmeddiag, Xpphy, Xpprog, Xpall, Xpward, Xprm, Xpbed
Xplname = Space(20)
Xpfname = Space(12)
Xpmname = Space(3)
Xraterank = Space(11)
Xfmpssan = "-" + Space(9)
Xpbdate = Date()
Xpage = Space(3)
Xpsex = Space(1)
Xpadmdate = Date()
Xpregno = Space(8)
Xpmeddiag = Space(24)
Xpphy = Space(24)
Xpprog = Space(3)
Xpall = Space(24)
Xpward = Space(2)
Xprm = Space(1)
Xpbed = Space(1)

Do While .T.

--- Screen Display B:Pt_Info.Scr ---

Set Color To W+/B, W+/B
Clear
?? Flash+"S:B:Pt_Info.Scr/"
Set Color To W+/B, W+/B
@ 5,14 Get Xplname Pict "!XXXXXXXXXXXXXXXXXXXXXXXX"  
@ 7,14 Get Xpfname Pict "!XXXXXXXXXXXXXXX"  
@ 9,14 Get Xpmname Pict "!XX"
@ 11,14 Get Xraterank Pict ""
@ 13,14 Get Xfmpssan Pict "99-999999999"
@ 15,14 Get Xpbdate;
    Range CTOD("01/01/00"),CTOD("12/31/99")
@ 17,14 Get Xpage Pict "XXX"
@ 19,14 Get Xpsex Pict "!
@ 21,14 Get Xpdatedate;
    Range CTOD("01/01/00"),CTOD("12/31/99")
@ 5,55 Get Xpregno Pict "99999999" 
@ 7,55 Get Xpmddiag Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
@ 9,55 Get Xpphy Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
@ 11,55 Get Xpprog Pict "!!!"
@ 13,55 Get Xpall Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"

* -- Validate input for ward, room and bed assignment --

@ 15,55 Get Xpward Pict "9!"
Read
Do While .Not. [Xpward = "2E" .Or. Xpward = "3E"]
    Xpward = Space[2]
@ 24,0 Say "Re-Enter Either 2E or 3E"
@ 15,55 Get Xpward Pict "9!"
Read
Enddo
@ 24,0 Clear

@ 17,55 Get Xprm Pict "9"
Read
Do While .Not. [Xprm = "1" .Or. Xprm = "2" .Or.
    Xprm = "3"]
    Xprm = Space[1]
@ 24,0 Say "Re-Enter Either 1 or 2 or 3"
@ 17,55 Get Xprm Pict "9"
Read
Enddo
@ 24,0 Clear

@ 19,55 Get Xpbed PICT "!"
Read
Do While .Not. [Xpbed = "A" .Or. Xpbed = "B"]
    Xpbed = Space[1]
@ 24,0 Say "Re-Enter Either A or B"
@ 19,55 Get Xpbed Pict "!"
Read
Enddo
@ 24,0 Clear

* -- Put data from variable names into Dbf file --

Use B:Pt_Info
Do While .Not. EOF()
Skip
Enddo
Append Blank

Replace Plname With Xplname
Replace Pfname With X pname
Replace Pmname With Xpmname
Replace Raterank With Xraterank
Replace Fmpssan With XFmpssan
Replace Pbdate With Xpbdate
Replace Page With Xpage
Replace Psex With Xpsex
Replace Padmdate With Xpadmdate
Replace Pregno With Xpregno
Replace Pmeddiag With Xpmeddiag
Replace Pphy With Xpphy
Replace Pprog With Xpprog
Replace Pall With Xpall
Replace Pward With Xpward
Replace Prm With Xprm
Replace Pbed With Xpbed

Return
Release Xplname, X pname, Xpmname, Xraterank, XFmpssan
Release Xpbdate, Xpage, Xpsex, Xpadmdate, Xpregno
Release Xpmeddiag, Xpphy, Xpprog, Xpall, Xpward, Xprm, Xpbed

Enddo
***** DISCHARG.PRG ****************************

• Author:  Gary R. Harmeyer LCDR NC USN
• Date:    9 January 1986
• Screen Generated By:  The Software Bottling Company
  Of New York, c1985
• Purpose:  Discharge a patient.
• Input Files Used:  Discharg.Scr and Procfile.Prg
• Output Files Used:  Pt_Info, Orders and Ncaredb.Dbf
• Calling Routine:  Admit.Prg
• Routine Calls:  None
• Modification Date:  18 February 1986

* -- Screen Input Program For Discharg -- *

Do Setup
Public Xdischopt,Xdcfssn,Xdclname,Xdcfname
Public Xdcmmname,Xdcphy,Xmdfmpssn,Xppack
Xppack = .F.
Select A
Use B:Pt_Info
Select B
Use B:Orders
Select C
Use B:Ncaredb

Do While .T.

* -- Store data from Dbf file into variable names -- *

Select A
Xdcfssn = Fmpssn
Xdclname = Plname
Xdcfname = Pfname
Xdcmname = Pmname
Xdcphy = Pphy

* -- Screen Display B:Discharg.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Dischorg.Scr/"
Set Color To W+/B,W+/B
Xdischopt = 1
@ 22,3 Say Curuser
@ 13,2 Say Xdcfssn
@ 13,17 Say Xdclname
@ 13,38 Say Xdcfname
@ 13,51 Say Xdcmname
@ 13,55 Say Xdcphy
Get Xdischopt Pict "9" Range 0,3
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xdischopt = 0
  * -- Sign-Off
  If Xppack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdischopt = 1
  * -- Next Patient
  Skip
  If EOF ()
    @ 24,15 Say "No Additional Patients -- Press "
    @ 24,47 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    If Xppack = .T.
      Pack
    Endif
    Close Databases
    Return
  Else
    Loop
  Endif

Case Xdischopt = 2
  * -- Discharge patient
  Xppack = .T.
  Store "" + Xdcfssn + "" To Xmdfmpssn

  * -- Eliminate patient data from database files
  Select B
    Do While .Not. EOF()
      Locate For Fmpssn = &Xmdfmpssn
      If .Not. EOF()
        Delete
        Skip
      Endif
    Enddo
  Pack
Select C
   Do While .Not. EOF()
      Locate For Nfmpssn = &Xmdfmpssn
      If .Not. EOF()
         Delete
         Skip
      Endif
   Enddo
   Pack
Select A
   Delete
   Skip
   If EOF()
      @ 24,15 Say "No Additional Patients -- Press "
      @ 24,47 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Pack
      Close Databases
      Return
   Else
      Loop
   Endif
   Case Xdischopt = 3
      * -- Admit/Discharge Screen
      If Xppack = .T.
         Pack
      Endif
      Close Databases
      Return
   Endcase
   Release Xdischopt,Xdcfssn,Xdclname,Xdcfname
   Release Xdcmname,Xdcpphy,Xmdfmpssn,Xppack
Enddo
--- WARD.PRG --------------------------------------

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 26 November 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Determine word selection.
- Input Files Used: Ward.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: Master.Prg
- Routine Called: Ward2 or Ward3.Prg
- Modification Date: 4 February 1986

-- Screen Input Program For Ward --

Do Setup
Public Xwardopt,Ourpt,Ofreq,Passdata,Ptpoint,Todayonly
Public Monpoint,Emopoint,Roupoint,Ptselect, Morder,Now
Public PtFmpssn,Ptregno
Ofreq = Space(1)
Passdata = Space(6)
Ptpoint = 0
Todayonly = "F"
Monpoint = 0
Emopoint = 0
Roupoint = 0
Morder = Space(27)
Now = Space(8)

Do While .T.

- -- Screen Display B:Ward.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward.Scr/"
Set Color To W+/B,W+/B
Xwardopt = 3
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 22,3 Say Curuser
@ 22,67 Get Xwardopt Pict "9" Range 0,3
Read

- -- Evaluate action based on the option selected --

Do Case

Case Xwardopt = 0
  - -- Sign-Off

169
Close Databases
Close Procedure
Release All
Return To Master

Case Xwardopt = 1
  • -- 2E Surgical Ward
  Do B:Ward2
  Return

Case Xwardopt = 2
  • -- 3E Medical Ward
  Do B:Ward3
  Return

Case Xwardopt = 3
  • -- Master Screen
  Return

Endcase
Release Xwardopt

Enddo
**** WARD2.PRG  

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 26 November 1985
- Screen Generated By: The Software Bottling Company of New York, c1985
- Purpose: Displays patients assigned to ward 2E, for patient selection.
- Output Files Used: Pt_Info.Dbf
- Calling Routine: Master.Prg
- Routine Called: Doctor or Nurse.Prg
- Modification Date: 4 February 1986

-- Screen input program for Ward2 --

Do Setup
Public Xwd2opt, Xpt1regno, Xpt2regno, Xpt3regno, Xpt4regno
Public Xpt5regno, Xpt6regno, Xpt1, Xpt2, Xpt3, Xpt4, Xpt5
Public Xpt1fmpssn, Xpt2fmpssn, Xpt3fmpssn, Xpt6
Public Xpt4fmpssn, Xpt5fmpssn, Xpt6fmpssn

-- Store specific data from Dbf file into variable names --

Use B:Pt_Info
Locate For Prm = '1'. And. Pbed = 'A'. And. Pward = '2'
  Xpt1 = Pfname - (' ' + Plname)
  Xpt1regno = Pregno
  Xpt1fmpssn = Fmpssan
Locate For Prm = '1'. And. Pbed = 'B'. And. Pward = '2'
  Xpt2 = Pfname - (' ' + Plname)
  Xpt2regno = Pregno
  Xpt2fmpssn = Fmpssan
Locate For Prm = '2'. And. Pbed = 'A'. And. Pward = '2'
  Xpt3 = Pfname - (' ' + Plname)
  Xpt3regno = Pregno
  Xpt3fmpssn = Fmpssan
Locate For Prm = '2'. And. Pbed = 'B'. And. Pward = '2'
  Xpt4 = Pfname - (' ' + Plname)
  Xpt4regno = Pregno
  Xpt4fmpssn = Fmpssan
Locate For Prm = '3'. And. Pbed = 'A'. And. Pward = '2'
  Xpt5 = Pfname - (' ' + Plname)
  Xpt5regno = Pregno
  Xpt5fmpssn = Fmpssan
Locate For Prm = '3'. And. Pbed = 'B'. And. Pward = '2'
  Xpt6 = Pfname - (' ' + Plname)
  Xpt6regno = Pregno
  Xpt6fmpssn = Fmpssan
Do While .T.

* -- Screen Display B:Ward2.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward2.Scr/"
Set Color To W+/B,W+/B
Xwd2opt = 7
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 9,39 Say Xpt1
@ 10,39 Say Xpt2
@ 12,39 Say Xpt3
@ 13,39 Say Xpt4
@ 15,39 Say Xpt5
@ 16,39 Say Xpt6
@ 22,3 Say Curuser
@ 22,67 Get Xwd2opt Pict "9" Range 0,7
Read

* -- Evaluate action based on the option selected -- *
* -- Store data from Dbf file into variable names -- *

Do Case

Case Xwd2opt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xwd2opt = 1
* -- Patient in room 1 bed A
Locate For Prm = '1'. And. Pbed = 'A'. And. Pward = '2'
Ptregno = Xptlregno
Ptselect =;
   Pward = [ PWARD-"P+Ppm+Pbed+Pptl]  
Ourpt = Xpt1
Pttmpssn = Xpt1tmpssn
If Ourpt = " "
   @ 24,9 Say "Sorry No Patient In That Bed -- "
   @ 24,41 Say "Please Press Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd2opt = 2
* -- Patient in room 1 bed B
Locate For Prm = '1'.And. Pbed = 'B'. And. Pward = '2'
   Ptregno = Xpt2regno
   Ptselect =;
   Pward -(' ' +Prm)-(' ' +Pbed)-(' ' +Xpt2)
   Ourpt = Xpt2
   Ptfmpssn = Xpt2fmpssn
If Ourpt = " "
   @ 24,9 Say "Sorry No Patient In That Bed -- "
   @ 24,41 Say "Please Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd2opt = 3
* -- Patient in room 2 bed A
Locate For Prm = '2'.And. Pbed = 'A'. And. Pward = '2'
   Ptregno = Xpt3regno
   Ptselect =;
   Pward -(' ' +Prm)-(' ' +Pbed)-(' ' +Xpt3)
   Ourpt = Xpt3
   Ptfmpssn = Xpt3fmpssn
If Ourpt = " "
   @ 24,9 Say "Sorry No Patient In That Bed -- "
   @ 24,41 Say "Please Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
If Omodule = "0"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd2opt = 4
   * -- Patient in room 2 bed B
   Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '2'
   Ptno = Xpt4tno
   Ptselct =
      Pward -('@' +Prm)-('@' +Pbed)-('@' +Xpt4)
   Ourpt = Xpt4
   Ptfmssn = Xpt4fmssn
If Ourpt = "@"
   @ 24,9 Say "Sorry No Patient In That Bed -- "
   @ 24,41 Say "Please Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd2opt = 5
   * -- Patient in room 3 bed A
   Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '2'
   Pttno = Xpt5tno
   Ptselct =
      Pward -('@' +Prm)-('@' +Pbed)-('@' +Xpt5)
   Ourpt = Xpt5
   Ptfmssn = Xpt5fmssn
If Ourpt = "@"
   @ 24,9 Say "Sorry No Patient In That Bed -- "
   @ 24,41 Say "Please Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
If Omodule = "D"
   Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return

Case Xwd2opt = 6
   * -- Patient in room 3 bed B
Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '2'
Ptregno = Xpt6regno
   Ptselect = ;
      Pward -( ' +Prm)-(' +Pbed)-( ' +Xpt6)
   Ourpt = Xpt6
   Ptfmpssn = Xpt6fmpssn
   If Ourpt = " "
      @ 24,9 Say "Sorry No Patient In That Bed -- "
      @ 24,41 Say "Please Press Any Key To Continue"
      Set Console OFF
      Wait
      Set Console On
      Loop
   Endif
If Omodule = "D"
   Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return

Case Xwd2opt = 7
   * -- Master Screen
   Return
Endcase
Release Xwd2opt, Xpt1regno, Xpt2regno, Xpt3regno
Release Xpt5regno, Xpt6regno, Xpt5fmpssn, Xpt6fmpssn
Release Xpt1fmpssn, Xpt2fmpssn, Xpt3fmpssn, Xpt4fmpssn
Release Xpt4regno, Xpt1, Xpt2, Xpt3, Xpt4, Xpt5, Xpt6
Enddo
WARD3.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 11 January 1986
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Displays patients assigned to ward 3E, for patient selection.
Output Files Used: Pt_Info.Dbf
Calling Routine: Doctor or Nurse.Prg
Routine Called: Moster.Prg
Modification Date: 3 March 1986

-- Screen input program for Ward3 --

Do Setup
Public Xwd3opt,Xpt7,Xpt8,Xpt9,Xpt10,Xpt11,Xpt12
Public Xpt7regno,Xpt8regno,Xpt9regno,Xpt10regno
Public Xpt11regno,Xpt12regno,Xpt11fmpssn,Xpt12fmpssn
Public Xpt7fmpssn,Xpt8fmpssn,Xpt9fmpssn,Xpt10fmpssn

-- Store specific data from Dbf file into variable names

Use B:Pt_Info
Locate For Prm = '1' .And. Pbed = 'A' .And. Pward = '3'
  Xpt7 = Pfname - (' ' +Pname)
  Xpt7regno = Pregno
  Xpt7fmpssn = Fmpssn
Locate For Prm = '1' .And. Pbed = 'B' .And. Pward = '3'
  Xpt8 = Pfname - (' ' +Pname)
  Xpt8regno = Pregno
  Xpt8fmpssn = Fmpssn
Locate For Prm = '2' .And. Pbed = 'A' .And. Pward = '3'
  Xpt9 = Pfname - (' ' +Pname)
  Xpt9regno = Pregno
  Xpt9fmpssn = Fmpssn
Locate For Prm = '2' .And. Pbed = 'B' .And. Pward = '3'
  Xpt10 = Pfname - (' ' +Pname)
  Xpt10regno = Pregno
  Xpt10fmpssn = Fmpssn
Locate For Prm = '3' .And. Pbed = 'A' .And. Pward = '3'
  Xpt11 = Pfname - (' ' +Pname)
  Xpt11regno = Pregno
  Xpt11fmpssn = Fmpssn
Locate For Prm = '3' .And. Pbed = 'B' .And. Pward = '3'
  Xpt12 = Pfname - (' ' +Pname)
  Xpt12regno = Pregno
  Xpt12fmpssn = Fmpssn

176
Do While .T.

* -- Screen Display B:Ward3.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward3.Scr/"
Set Color To W+/B,W+/B
Xwd3opt = 7
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 9,39 Say Xpt7
@ 10,39 Say Xpt8
@ 12,39 Say Xpt9
@ 13,39 Say Xpt10
@ 15,39 Say Xpt11
@ 16,39 Say Xpt12
@ 22,3 Say Curuser
@ 22,67 Get Xwd3opt Pict "9" Range 0,7
Read

* -- Evaluate action based on the option selected --
* -- Store data from Dbf file into variable names --

Do Case

Case Xwd3opt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xwd3opt = 1
* -- Patient in room 1 bed A
Locate For Prm= '1'.And. Pbed= 'A'.And. Pward= '3'
Ptregno = Xpt7regno
Ptselect =;
Pward -( ' +Prm)-(' +Pbed)-(' +Xpt7)
Ourpt = Xpt7
PtFmpssn = Xpt7Fmpssn
If Ourpt = "" Then
Wait "Sorry No Patient In That Bed --
- Please Press A Key To Continue"
Loop
Endif
If Omodule = "D"
Do B:Doctor
Return

177
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd3opt = 2
   * -- Patient in room 1 bed B
   Locate For Prm= '1'.And. Pbed= 'B'.And. Pward= '3'
Ptregrno = XptBregno
Ptselect =
   Pward -[' ' +Prm]-[' ' +Pbed]-[' ' +Xpt8]
Ourpt = Xpt8
Ptfmpssn = Xpt8fmpssn
   IF Ourpt = ""
      Wait "Sorry No Patient In That Bed -;
      - Please Press A Key To Continue"
      Loop
   Endif
   IF Omodule = "D"
      Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return

Case Xwd3opt = 3
   * -- Patient in room 2 bed A
   Locate For Prm= '2'.And. Pbed= 'A'.And. Pward= '3'
Ptregrno = XptAregno
Ptselect =
   Pward -[' ' +Prm]-[' ' +Pbed]-[' ' +Xpt9]
Ourpt = Xpt9
Ptfmpssn = Xpt9fmpssn
   IF Ourpt = ""
      Wait "Sorry No Patient In That Bed -;
      - Please Press A Key To Continue"
      Loop
   Endif
   IF Omodule = "D"
      Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return
Case Xwd3o6pt = 4
* -- Patient in room 2 bed B
Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '3'
Ptregno = Xpt10regno
Ptselect = ;

Pward-( ' +Prm)-('1 +Pbed)-('1 +Xpt10)
Ourpt = Xpt10
Ptffmssn = Xpt10fmpssn
If Ourpt = " "
Wait "Sorry No Patient In That Bed -;
- Please Press A Key To Continue"
Loop
Endif
If Omodule = "D"
Do B:Doctor
Return
Else
Do B:Nurse
Return
Endif
Return

Case Xwd3o6pt = 5
* -- Patient in room 3 bed A
Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '3'
Ptregno = Xpt11regno
Ptselect = ;

Pward-( ' +Prm)-('1 +Pbed)-('1 +Xpt11)
Ourpt = Xpt11
Ptffmssn = Xpt11fmpssn
If Ourpt = " "
Wait "Sorry No Patient In That Bed -;
- Please Press A Key To Continue"
Loop
Endif
If Omodule = "D"
Do B:Doctor
Return
Else
Do B:Nurse
Return
Endif
Return

Case Xwd3o6pt = 6
* -- Patient in room 3 bed B
Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '3'
Ptregno = Xpt12regno
Ptselect = ;

Pward-( ' +Prm)-('1 +Pbed)-('1 +Xpt12)
Ourpt = Xpt12
PtFmpssn = Xp12fmpssn
If Ourpt = " "
    Wait "Sorry No Patient In That Bed -;
    - Please Press A Key To Continue"
    Loop
Endif
If Omodule = "D"
    Do B:Doctor
    Return
Else
    Do B:Nurse
    Return
Endif
Return
Case Xwd3opt = 7
    * -- Master Screen
    Return
Endcase
Release Xwd3opt, Xpt7, Xpt8, Xpt9, Xpt10, Xpt11, Xpt12
Release Xpt7regno, Xpt8regno, Xpt9regno, Xpt10regno
Release Xpt11regno, Xpt12regno, Xp11fmpssn, Xp12fmpssn
Release Xpt7fmpssn, Xpt8fmpssn, Xpt9fmpssn, Xpt10fmpssn
Enddo
--- DOCTOR.PRG ---

* Author: Gar-y R. Harmeley LCDR NC USN
* Date: 27 November 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Menu for selecting, viewing or modifying the doctor's orders.
* Input Files Used: Doctor.Prg and Procfile.Prg
* Output Files Used: Orders.DbF
* Calling Routine: Ward2 or Ward3.Prg
* Routine Calls: Doc_menu, Transfer or Discont.Prg
* Modification Date: 4 February 1986

--- Screen Input Program For Doctor ---

Do Setup
Public Xdocopt,Xmptfmpssn,Dmenu
Dmenu = Space(1)

Do While .T.
  * -- Screen Display A:Doctor.Scr --

  Set Color To W+/B,W+/B
  Clear
  ? Flash"S.A:Doctor.Scr/"
  Set Color To W+/B,W+/B
  Xdocopt = 6
  Do Headings
    @ 22,67 Get Xdocopt Pict "9" Range 0,6
    Read

  * -- Evaluate action based on the option selected --

  Do Case

  Case Xdocopt = 0
    * -- Sign-Off
    Close Databases
    Close Procedure
    Release All
    Return To Master

  Case Xdocopt = 1
    * -- Order Entry
    Do B:Doc_Menu
      If Dmenu = "1"
        Loop
      Else
Return
Endif

Case Xdocopt = 2
* -- Admit / Transfer / Discharge Patient
Do B:Transfer
If Dmenu = "1"
  Loop
Else
  Return
Endif

Case Xdocopt = 3
* -- Review Medical Orders
Clear
Set Color To W+/B,W+/B
@ 1,22 Say "Patient Orders For:"
@ 1,42 Say Ourpt
@ 3,10 Say "Press -- Ctrl and 5 -- Keys to Pause "
@ 3,47 Say "The Scrolling If Necessary"
Use B:Orders
Store "" + Ptfmpssn + "" To Xmptfmpssn
Report Form B:Ord For Fmpssn = &Xmptfmpssn .And.;
  Module # 'N'
Wait
Loop

Case Xdocopt = 4
* -- Print Medical Orders
@ 24,0 Say "Turn On Your Printer, "
@ 24,22 Say "Then Hit Any Key To Print"
Set Console Off
Wait
Set Console On
Clear
@ 12,30 Say "Printing, Please Wait"
Set Console Off
Set Device To Print
@ 1,22 Say "Patient Orders For:"
@ 1,42 Say Ourpt
Set Device To Screen
Use B:Orders
Store "" + Ptfmpssn + "" To Xmptfmpssn
Report Form B:Ord Noeject To Print For;
  Fmpssn = &Xmptfmpssn .And. Module # 'N'
Set Console On
@ 24,0 Say "Finished Printing,"
@ 24,19 Say "Hit Any Key To Continue"
Set Console Off
Wait

182
Set Console On
Loop

Case Xdocopt = 5
  * -- Discontinue An Order
  Do B:Discont
  If Omenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocopt = 6
  * -- Master Screen
  Return

Endcase
Release Xdocopt,Xmptfmpssn

Enddo
--- DOC_MENU.PRG ---

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 27 November 1985
- Screen Generated By: The Software Bottling Company Of New York, c1985
- Purpose: Menu of ten order categories for doctor to choose from.
- Input Files Used: Doc_Menu.Scr and Drproc.Prg
- Output Files Used: None
- Calling Routine: Doctor.Prg
- Routine Called: Activity, Diet, IVA, Lab, Monitor, Pham1
  Xray, Lung, US or Routine.Prg
- Modification Date: 4 February 1986

--- Screen Input Program For Doc_Menu ---

Do Setup
Public Xdocmenopt

Do While .T.

  -- Screen Display A:Doc_Menu.Scr --
  Set Color To W+/B, W+/B
  Clear
  ?? Flash+"S.A:Doc_Menu.Scr/"
  Set Color To W+/B, W+/B
  Xdocmenopt = 11
  Do Headings
  @ 22,66 Get Xdocmenopt Pict "99" Range 0,12
  Read

  -- Evaluate action based on the option selected --

Do Case

  Case Xdocmenopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

  Case Xdocmenopt = 1
  Do B:Activity
  If Dmenu = "1"
    Loop
  Else
Return
Endif

Case Xdocmenopt = 2
Do B:Diet
If Dmenu = "1"
    Loop
Else
    Return
Endif

Case Xdocmenopt = 3
Do B:IVA
If Dmenu = "1"
    Loop
Else
    Return
Endif

Case Xdocmenopt = 4
Do B:Lab
If Dmenu = "1"
    Loop
Else
    Return
Endif

Case Xdocmenopt = 5
Do B:Monitor
If Dmenu = "1"
    Loop
Else
    Return
Endif

Case Xdocmenopt = 6
Do B:Pham1
If Dmenu = "1"
    Loop
Else
    Return
Endif

Case Xdocmenopt = 7
Do B:Xray
If Dmenu = "1"
    Loop
Else
    Return
Endif
Case Xdocmenopt = 8
   Do B:Lung
      If Dmenu = "1"
         Loop
      Else
         Return
      Endif
   Enddo

Case Xdocmenopt = 9
   Do B:VS
      If Dmenu = "1"
         Loop
      Else
         Return
      Endif
   Enddo

Case Xdocmenopt = 10
   Do B:Routine
      If Dmenu = "1"
         Loop
      Else
         Return
      Endif
   Enddo

Case Xdocmenopt = 11
   * -- Doctor's Master Screen
      Dmenu = "1"
      Return

Case Xdocmenopt = 12
   * -- Master Screen
      Store ' ' To Dmenu
      Return
   Endcase
   Release Xdocmenopt
Enddo
PROCEDURE ACTIVITY.PRG

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 29 November 1985
* Screen Generated By: The Software Bottling Company of New York, c1985
* Purpose: Determine activity orders of the patient.
* Input Files Used: Activity.Scr and Procfile.Prg
* Output Files Used: Orders.Dbf
* Calling Routine: Doc_Menu.Prg
* Routine Called: Time.Prg
* Modification Date: 4 February 1986

-- Screen Input Program For Activity --

Do Setup
Public Xactopt

Do While .T.

* -- Screen Display A:Activity.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Activity.Scr/"
Set Color To W+/B,W+/B
Xactopt = 13
Do Headings
Do Startup
@ 22,66 Get Xactopt Pict "99" Range 0,14
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xactopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xactopt = 1
  Morder = "Ambulate ad lib"
  Do Repeat
    Loop
Case Xactopt = 2
Morder = "Ambulate w/ Assistance"
Do B:Time

Do Case
Case (Timeopt < 5 .Or. Timeopt = 41)
* -- No precise frequency given
Passdata = "051 18"
Ptpoint = 0
Case (Timeopt > 4 .And. Timeopt < 22)
* -- X 1
Passdata = "051 11"
Ptpoint = 2
Case (Timeopt > 21 .And. Timeopt < 25)
* -- X 2 or BID
Passdata = "051 12"
Ptpoint = 4
Case (Timeopt > 24 .And. Timeopt < 31)
* -- X 3 or I10
Passdata = "051 13"
Ptpoint = 6
Case (Timeopt > 30 .And. Timeopt < 34)
* -- X 4 or Q10
Passdata = "051 14"
Ptpoint = 8
Case (Timeopt = 34 .Or. Timeopt = 35)
* -- X 6 or Q4h
Passdata = "051 15"
Ptpoint = 12
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- X 12 or Q2h
Passdata = "051 16"
Ptpoint = 24
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- X 24 or Q1h
Passdata = "051 17"
Ptpoint = 48

Endcase

Do Repload
Loop

Case Xactopt = 3
Morder = "Strict Bedrest"
Do Repload
Loop

Case Xactopt = 4
Morder = "Bedrest w/ BRP"
Do Reploord
Loop

Case Xactopt = 5
Morder = "Bedside Commode"
Do Reploord
Loop

Case Xactopt = 6
Morder = "OOB to Stretcher w/ Assist"
Do B:Time

Do Case
  Case [Timeopt < 25 .Or. Timeopt = 41]
    * -- Less than x 3 or TID
      Passdata = "QS1 2"
      Ptpoint = 0
  Case [Timeopt > 24 .And. Timeopt < 34]
    * -- X 3 or less than Q4h (x 6)
      Passdata = "QS1 3"
      Ptpoint = 2
  Case [Timeopt = 34 .Or. Timeopt = 35]
    * -- X 6 or Q4h
      Passdata = "QS1 4"
      Ptpoint = 4
  Case [Timeopt = 36 .Or. Timeopt = 37]
    * -- X 12 or Q2h
      Passdata = "QS1 5"
      Ptpoint = 8
  Case [Timeopt = 38 .Or. Timeopt = 39]
    * -- X 24 or Q1h
      Passdata = "QS1 6"
      Ptpoint = 16
Endcase

Do Reploord
Loop

Case Xactopt = 7
Morder = "Dangle Legs"
Do B:Time
Do Reploord
Loop

Case Xactopt = 8
Morder = "Keep on Back"
Do Reploord
Loop
Case Xactopt = 9
  Morder = "May Shower"
  Do Reploord
  Loop

Case Xactopt = 10
  Morder = "Turn Patient"
  Do B:Time
  Do Reploord
  Loop

Case Xactopt = 11
  Morder = "Turning Frame"
  Do B:Time

  Do Case
    Case (Timeopt < 36 . Or. Timeopt = 41)
    * -- Less than Q2h
    Passdata = "Q25 1"
    Ptpoint = 0
    Case (Timeopt = 36 . Or. Timeopt = 37)
    * -- Q2h or x 12
    Passdata = "Q25 2"
    Ptpoint = 14
    Case (Timeopt = 38 . Or. Timeopt = 39)
    * -- Q1h or x 24
    Passdata = "Q25 3"
    Ptpoint = 28
  Endcase

  Do Reploord
  Loop

Case Xactopt = 12
  Morder = "Up in Chair w/ Assist"
  Do B:Time

  Do Case
    Case (Timeopt < 25 . Or. Timeopt = 41)
    * -- Less than x 3 or TID
    Passdata = "Q51 1"
    Ptpoint = 0
    Case (Timeopt > 24 . And. Timeopt < 34)
    * -- X 3 or less than Q4h (x 6)
    Passdata = "Q51 7"
    Ptpoint = 2
    Case (Timeopt = 34 . Or. Timeopt = 35)
    * -- X 6 or Q4h
    Passdata = "Q51 8"
    Ptpoint = 4
Case \( \text{Timeopt} = 36 \) or \( \text{Timeopt} = 37 \)
  * -- X 12 or 02h
  \( \text{Passdata} \) = "051 9"
  Ptpoint = 8
Case \( \text{Timeopt} = 38 \) or \( \text{Timeopt} = 39 \)
  * -- X 24 or 01h
  \( \text{Passdata} \) = "051 10"
  Ptpoint = 16
Endcase

Do Repload
Loop

Case Xactopt = 13
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xactopt = 14
  * -- Master Screen
  Dmenu = '',
  Return

Endcase
Release Xactopt

Enddo
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS IN NURSE CARE PLANNING AND PATIENT CLASSIFICATION (U) Naval Postgraduate School Monterey CA G R Harneyer Mar 86 UNCLASSIFIED
**TIME.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 29 November 1985
- **Screen Generated By:** The Software Bottling Company
- **Purpose:** Determine the time of orders for the patient.
- **Input Files Used:** Time.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** All Orders and Ncaredb.Db modules.
- **Routine Called:** Timehelp.Prg
- **Modification Date:** 4 February 1986

--- Screen Input Program For Time ---

Do Setup
Public Timeopt,Xtimetime
Xtimetime = Space(4)

Do While .T.

* -- Screen Display A:Time.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S:A:Time.Scr/"
Set Color To W+/B,W+/B
Timeopt = 41
Do Headings
@ 22,66 Get Timeopt Pict "99" Range 1,41
Read

* -- Evaluate action based on the option selected --

Do Case

Case Timeopt = 1
Ofreq = "PRN"
Return

Case Timeopt = 2
Ofreq = "Q 1-2 Hr PRN"
Return

Case Timeopt = 3
Ofreq = "Q 2-3 Hr PRN"
Return
Case Timeopt = 4
  Ofreq = "Q 3-4 Hr PRN"
  Return

Case Timeopt = 5
  Ofreq = "On Call"
  Todayonly = "T"
  Return

Case Timeopt = 6
  Ofreq = "OD"
  Return

Case Timeopt = 7
  Ofreq = "HS"
  Return

Case Timeopt = 8
  Ofreq = "x 1"
  Todayonly = "T"
  Return

Case Timeopt = 9
  * -- Today @ ----
  @ 17,8 Get Xtimetime Pict "9999"
  Read
  Ofreq = "Today @ " + Xtimetime
  Todayonly = "T"
  Return

Case Timeopt = 10
  Ofreq = "Daily @ 0200"
  Return

Case Timeopt = 11
  Ofreq = "Daily @ 0400"
  Return

Case Timeopt = 12
  Ofreq = "Daily @ 0600"
  Return

Case Timeopt = 13
  Ofreq = "Daily @ 0800"
  Return

Case Timeopt = 14
  Ofreq = "Daily @ 1000"
  Return
<table>
<thead>
<tr>
<th>Case Timeopt</th>
<th>Ofreq</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>&quot;Daily @ 1200&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>16</td>
<td>&quot;Daily @ 1400&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>17</td>
<td>&quot;Daily @ 1600&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>18</td>
<td>&quot;Daily @ 1800&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>19</td>
<td>&quot;Daily @ 2000&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>20</td>
<td>&quot;Daily @ 2200&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>21</td>
<td>&quot;Daily @ 2400&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>22</td>
<td>&quot;BID&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>23</td>
<td>&quot;Q 12 Hr&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>24</td>
<td>&quot;x 2&quot;</td>
</tr>
<tr>
<td></td>
<td>Todayonly</td>
</tr>
<tr>
<td></td>
<td>&quot;T&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>25</td>
<td>&quot;TID&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
<tr>
<td>26</td>
<td>&quot;AC&quot;</td>
</tr>
<tr>
<td></td>
<td>Return</td>
</tr>
</tbody>
</table>
Case Timeopt = 27
  Ofreq = "PC"
  Return

Case Timeopt = 28
  Ofreq = "Q 8 Hr"
  Return

Case Timeopt = 29
  Ofreq = "x 3"
  Todayonly = "T"
  Return

Case Timeopt = 30
  Ofreq = "Q Shift"
  Return

Case Timeopt = 31
  Ofreq = "QID"
  Return

Case Timeopt = 32
  Ofreq = "Q 6 Hr"
  Return

Case Timeopt = 33
  Ofreq = "x 4"
  Todayonly = "T"
  Return

Case Timeopt = 34
  Ofreq = "Q 4 Hr"
  Return

Case Timeopt = 35
  Ofreq = "x 6"
  Todayonly = "T"
  Return

Case Timeopt = 36
  Ofreq = "Q 2 Hr"
  Return

Case Timeopt = 37
  Ofreq = "x 12"
  Todayonly = "T"
  Return
Case Timeopt = 38
  Ofreq = "Q 1 Hr"
  Return

Case Timeopt = 39
  Ofreq = "x 24"
  Todayonly = "T"
  Return

Case Timeopt = 40
  * -- Help
  Do B:Timemenu
  Loop

Case Timeopt = 41
  * -- Return to Calling Screen
  Return

Endcase
Release Xtimetime

Enddo
**TIMEHELP.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 1 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Brief on-line help facility for Time.Prg.
- **Input Files Used:** Timehelp.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Time.Prg
- **Routine Called:** None
- **Modification Date:** 26 January 1986

--- Screen Input Program For Timehelp --

Do Setup

Do While .T.

- -- Screen Display A:Timehelp.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Timehelp.Scr/"
  @ 24,0
  @ 24,37 "Press Any Key To Continue"
  Set Console Off
  Wait
  Set Console On
  Return

Enddo
--- DIET.PRG

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 27 November 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Determine the diet orders of the patient.
* Input Files Used: Diet.Scr and Procfile.Prg
* Output Files Used: Orders.DbF
* Calling Routine: Doc_Menu.Prg
* Routine Called: Time.Prg
* Modification Date: 4 February 1986

--- Screen Input Program For Diet ---

Do Setup
Public Xdietopt

Do While .T.

* -- Screen Display A:Diet.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Diet.Scr/"
Set Color To W+/B,W+/B
Xdietopt = 19
Do Headings
Do Startup
@ 22,66 Get Xdietopt Pict "99" Range 0,20
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xdietopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdietopt = 1
  Morder = "Diet As Tolerated"
  Do Replace
  Loop
Case $X_{\text{diet opt}} = 2$
  Morder = "Clear Liquids Diet"
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 3$
  Morder = "Diabetic Diet"
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 4$
  Morder = "Fat-controlled Diet"
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 5$
  Morder = "Full Liquid Diet"
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 6$
  Morder = "Infant/Neonat Bottle x1"
  Passdata = "Q29 1"
  Ptpoint = 2
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 7$
  Morder = "Infant/Neonat Bottle x6"
  Passdata = "Q29 2"
  Ptpoint = 12
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 8$
  Morder = "Infant/Neonat Bottle x12"
  Passdata = "Q29 3"
  Ptpoint = 24
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 9$
  Morder = "Mechanical Soft Diet"
  Do Replaord
  Loop

Case $X_{\text{diet opt}} = 10$
  Morder = "Na Controlled Diet"
  Do Replaord
  Loop
Case Xdietopt = 11
Morder = "NPO"
Do REPLAORD
Loop

Case Xdietopt = 12
Morder = "NPO p 2400"
Do REPLAORD
Loop

Case Xdietopt = 13
Morder = "NPO w/ Ice Chips"
Do REPLAORD
Loop

Case Xdietopt = 14
Morder = "Regular Diet"
Do REPLAORD
Loop

Case Xdietopt = 15
Morder = "Renal/Liver Disease Diet"
Do REPLAORD
Loop

Case Xdietopt = 16
Morder = "T & A Diet"
Do REPLAORD
Loop

Case Xdietopt = 17
Morder = "Continuous Tube Feedings"
Do B:Time

Do Case
  Case [Timeopt < 6 .Or. Timeopt = 41]
  * -- Less than 1 bag per 24 hours
  Passdata = "027 1"
  Ptpoint = 0
  Case [Timeopt > 5 .And. Timeopt < 22]
  * -- 1 bag per 24 hours
  Passdata = "027 2"
  Ptpoint = 2
  Case [Timeopt > 21 .And. Timeopt < 25]
  * -- 2 bags per 24 hours
  Passdata = "027 3"
  Ptpoint = 4
  Case [Timeopt > 24 .And. Timeopt < 31]
  * -- 3 bags per 24 hours
Passdata = "Q27 4"
Ptpoint = 6
Case (Timeopt > 30 .And. Timeopt < 34)
  * -- 4 bags per 24 hours
  Passdata = "Q27 5"
Ptpoint = 8
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- 6 bags per 24 hours
  Passdata = "Q27 6"
Ptpoint = 12
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- 12 bags per 24 hours
  Passdata = "Q27 7"
Ptpoint = 24
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- 24 bags per 24 hours
  Passdata = "Q27 8"
Ptpoint = 48
Endcase
Do Replaord
Loop
Case Xdietopt = 18
  Morder = "Bolus Tube Feedings"
  Do B:Time
    Do Case
      Case (Timeopt < 34 .Or. Timeopt = 41)
        * -- Less than Q4h or x 6
        Passdata = "Q27 9"
Ptpoint = 0
      Case (Timeopt = 34 .Or. Timeopt = 35)
        * -- Q4h or x 6
        Passdata = "Q27 10"
Ptpoint = 5
      Case (Timeopt = 36 .Or. Timeopt = 37)
        * -- Q2h or x 12
        Passdata = "Q27 11"
Ptpoint = 10
      Case (Timeopt = 38 .Or. Timeopt = 39)
        * -- Q1h or x 24
        Passdata = "Q27 12"
Ptpoint = 20
    Endcase
    Do Replaord
    Loop
Case Xdietopt = 19
  * -- Doctor's Order Screen
  Dmenu = "1"
  Return

Case Xdietopt = 20
  * -- Master Screen
  Dmenu = " "
  Return

Endcase
Release Xdietopt

Enddo
--- IVA.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 8 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Determine first stage IV needs of the patient.
* Input Files Used: IUA.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Doc_Menu.Prg
* Routine Called: IUB.Prg
* Modification Date: 4 February 1986

-- Screen Input Program For IVA --

Do Setup
Public Xivaopt,Morder1

Do While .T.

* -- Screen Display A:IUA.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:IUA.Scr/"
Set Color To W+/B,W+/B
Xivaopt = 09
Do Headings
Do Startup
@ 22,66 Get Xivaopt Pict "99" Range 0,10
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xivaopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xivaopt = 1
  Morder1 = "Start IV of"
  Passdata = "Q30 1"
  Ptpoint = 2
  Todayonly = "T"
Do B:IVB
Loop

Case Xivaopt = 2
  Morder1 = "Alternate IV w/"
  Do B:IVB
  Loop

Case Xivaopt = 3
  Morder1 = "Follow IV w/"
  Do B:IVB
  Loop

Case Xivaopt = 4
  Morder1 = "Interrupt IV for"
  Do B:IVB
  Loop

Case Xivaopt = 5
  Morder1 = "Start 2nd IV of"
  Passdata = "030 1"
  Ptpoint = 2
  Todayonly = "T"
  Do B:IVB
  Loop

Case Xivaopt = 6
  Morder = "Discontinue IV"
  Do Repload
  Loop

Case Xivaopt = 7
  Morder = "Heparin Lock"
  Passdata = "073 1"
  Ptpoint = 4
  Do Repload
  Loop

Case Xivaopt = 8
  Morder = "Multilumen Line"
  Passdata = "072 3"
  Ptpoint = 8
  Do Repload
  Loop

Case Xivaopt = 9
  * -- Doctor’s Order Screen
  Dmenu = "1"
  Return
Case Xivoaopt = 10
   " -- Master Screen
   Dmenu = " "
   Return

Endcase
Release Xivoaopt

Enddo
--- IUB.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 8 December 1985
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: The doctor selects an IV solution for the patient.
* Input Files Used: IUB.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: IVA.Prg
* Routine Called: None
* Modification Date: 19 February 1986

--- Screen Input Program For IUB ---

Do Setup
Public Xivbopt,Blood
Blood = .F.

Do While .T.

* --- Screen Display A:IUB.Scr ---

Set Color To W+/B, W+/B
Clear
?? Flash+"S.A:IUB.Scr/"
Set Color To W+/B, W+/B
Xivbopt = 1
Do Headings
@ 22,67 Get Xivbopt Pict "9" Range 1,8
Read

* --- Evaluate action based on the option selected ---

Do Case

   Case Xivbopt = 1
       Morder = Morder1 + " D5/.45 NaCl"
   Do B:IVC
   Return

   Case Xivbopt = 2
       Morder = Morder1 + " RL"
   Do B:IVC
   Return

   Case Xivbopt = 3
       Morder = Morder1 + " DSRL"


Do B:IVC
Return

Case Xivbopt = 4
   Morder = Morder1 + "DSW"
   Do B:IVC
   Return

Case Xivbopt = 5
   Morder = Morder1 + "NS"
   Do B:IVC
   Return

Case Xivbopt = 6
   Morder = Morder1 + "DSNS"
   Do B:IVC
   Return

Case Xivbopt = 7
   Morder = Morder1 + "Whole Bld"
   Blood = .T.
   Do B:IVC
   Return

Case Xivbopt = 8
   Morder = Morder1 + "Packed Cells"
   Blood = .T.
   Do B:IVC
   Return

Endcase
Release Xivbopt

Enddo
----- IVC.PRG -----  

* Author: Gary R. Harmeyer LCDR NC USN  
* Date: 8 December 1985  
* Screen Generated By: The Software Bottling Company  
* Of New York, c1985  
* Purpose: Determine IV infusion rate for patient orders.  
* Input Files Used: IVC.Scr and Procfile.Prg  
* Output Files Used: None  
* Calling Routine: IVB.Prg  
* Routine Called: None  
* Modification Date: 4 February 1986  

* -- Screen Input Program For IVC --  
*  
Do Setup  
Public Xivcopt  

Do While .T.  

* -- Screen Display A:IVC.Scr --  

Set Color To W+/B,W+/B  
Clear  
?? Flash+"S.A:IVC.Scr/"  
Set Color To W+/B,W+/B  
Xivcopt = 6  
Do Headings  
@ 22,67 Get Xivcopt Pict "9" Range 1,8  
Read  

* -- Evaluate action based on the option selected --  

Do Case  

Case Xivcopt = 1  
  Ofreq = "Infuse o 30M"  
  If Blood = .T.  
    Possdata = "075 1"  
    Ptpoint = Ptpoint + 2  
  Else  
    Possdata = "072 3"  
    Ptpoint = Ptpoint + 8  
  Endif  
  Do Replaord  
  Return  

Case Xivcopt = 2  
  Ofreq = "Infuse o 1Hr"
If Blood = .T.
    Passdata = "Q75 1"
    Ptpoint = Ptpoint + 2
Else
    Passdata = "Q72 3"
    Ptpoint = Ptpoint + 8
Endif
Do Replaard
Return

Case Xivcopt = 3
    Ofreq = "Infuse o 2Hr"
    If Blood = .T.
        Passdata = "Q75 1"
        Ptpoint = Ptpoint + 2
    Else
        Passdata = "Q72 3"
        Ptpoint = Ptpoint + 8
    Endif
    Do Replaard
    Return

Case Xivcopt = 4
    Ofreq = "Infuse o 4Hr"
    If Blood = .T.
        Passdata = "Q75 1"
        Ptpoint = Ptpoint + 2
    Else
        Passdata = "Q72 3"
        Ptpoint = Ptpoint + 8
    Endif
    Do Replaard
    Return

Case Xivcopt = 5
    Ofreq = "Infuse o 6Hr"
    Passdata = "Q72 2"
    Ptpoint = Ptpoint + 6
    Do Replaard
    Return

Case Xivcopt = 6
    Ofreq = "Infuse o 8Hr"
    Passdata = "Q72 2"
    Ptpoint = Ptpoint + 6
    Do Replaard
    Return

Case Xivcopt = 7
    Ofreq = "Infuse o 12H"
Passdata = "Q72 1"
Ptpoint = Ptpoint + 4
Do Replaord
Return

Case Xivcopt = 8
Ofreq = "Infuse a 24K"
Passdata = "Q72 1"
Ptpoint = Ptpoint + 4
Do Replaord
Return

Endcase
Release Xivcopt, Blood

Enddo
***** LAB.PRG ****************************

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 8 December 1985
- Screen Generated By: The Software Bottling Company
  Of New York, c1985
- Purpose: Determine laboratory orders of the patient.
- Input Files Used: Lab.Scr and Procfile.Prg
- Output Files Used: Orders.DbF
- Calling Routine: Doc-Menu.Prg
- Routine Called: Time.Prg
- Modification Date: 4 February 1986

-- Screen Input Program For Lab --

Do Setup
Public Xlabopt

Do While .T.

- -- Screen Display A:Lab.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Lab.Scr/"
Set Color To W+/B,W+/B
Xlabopt = 32
Do Headings
Do Startup
@ 22,66 Get Xlabopt Pict "99" Range 0,33
Read

- -- Evaluate action based on the option selected --

Do Case

Case Xlabopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xlabopt = 1
  Morder = "Bilirubin"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 2
  Morder = "BUN"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 3
  Morder = "Calcium"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 4
  Morder = "Cloride"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 5
  Morder = "CO2"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 6
  Morder = "Creatinine"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 7
  Morder = "Glucose"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 8
  Morder = "Phosphate"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop
Case Xlabopt = 9
  Morder = "Potassium"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 10
  Morder = "Sodium"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 11
  Morder = "Uric Acid"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 12
  Morder = "Amylose"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 13
  Morder = "CPK"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 14
  Morder = "LDH"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop

Case Xlabopt = 15
  Morder = "SGOT"
  Do B:Time
  Do Labcount
  Do Replayard
  Loop
Case Xlabopt = 16
  Morder = "SGPT"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 17
  Morder = "CBC"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 18
  Morder = "Platelets"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 19
  Morder = "Prottime"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 20
  Morder = "Sed Rate"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 21
  Morder = "ABO & Rh"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 22
  Morder = "ABG (from A-line)"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop
Case Xlabopt = 23  
Morder = "ABG [stick]"  
Do B:Time  

Do Case  
Case (Xtimeopt < 25 .Or. Xtimeopt = 41)  
* -- Less than x 3 or TID  
Passdata = "Q45 1"  
Ptpoint = 0  
Case (Xtimeopt > 24 .And. Xtimeopt < 34)  
* -- X 3 [TID] or less than Q4h [x 6]  
Passdata = "Q45 2"  
Ptpoint = 2  
Case (Xtimeopt = 34 .Or. Xtimeopt = 35)  
* -- Q4h or x 6  
Passdata = "Q45 3"  
Ptpoint = 4  
Case (Xtimeopt = 36 .Or. Xtimeopt = 37)  
* -- Q2h or x 12  
Passdata = "Q45 4"  
Ptpoint = 8  
Case (Xtimeopt = 38 .Or. Xtimeopt = 39)  
* -- Q1h or x 24  
Passdata = "Q45 5"  
Ptpoint = 16  
Endcase  

Do Replaoord  
Loop  

Case Xlabopt = 24  
Morder = "Bld Cultures"  
Do B:Time  

Do Case  
Case (Xtimeopt < 25 .Or. Xtimeopt = 41)  
* -- Less than x 3 or TID  
Passdata = "Q46 1"  
Ptpoint = 0  
Case (Xtimeopt > 24 .And. Xtimeopt < 34)  
* -- X 3 [TID] or less than Q4h [x 6]  
Passdata = "Q46 2"  
Ptpoint = 2  
Case (Xtimeopt = 34 .Or. Xtimeopt = 35)  
* -- Q4h or x 6  
Passdata = "Q46 3"  
Ptpoint = 4  
Case (Xtimeopt = 36 .Or. Xtimeopt = 37)  
* -- Q2h or x 12  
Passdata = "Q46 4"
Ptpoint = 8
Case (Xtimeopt = 38 . Or. Xtimeopt = 39)
  * -- Q1h or * 24
  Passdata = "Q46 5"
  Ptpoint = 16
Endcase
  Do Replaord
  Loop

Case Xlabopt = 25
  Morder = "Culture & Sen"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 26
  Morder = "Cold Agglutins"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 27
  Morder = "HCG"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 28
  Morder = "Occ Bld in Stools"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 29
  Morder = "RPR"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 30
  Morder = "SMA 6"
  Do B:Time
  Do Labcount
Do Replaord
Loop

Case Xlabopt = 31
  Morder = "UA"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 32
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xactopt = 33
  * -- Master Screen
  Dmenu = '',
  Return

Endcase
Release Xlabopt

Enddo
LUNG.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 29 November 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Menu providing respiratory therapy options.
Input Files Used: Lung.Scr and Procfile.Prg
Output Files Used: Orders.Dbf
Calling Routine: Doc_Menu.Prg
Routine Called: Time.Prg
Modification Date: 28 January 1986

-- Screen Input Program For Lung --

Do Setup
Public XLungopt,Xliteropt,Xliter

Do While .T.

-- Screen Display A:Lung.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Lung.Scr/
Set Color To W+/B,W+/B
XLungopt = 14
Do Headings
Do Startup
@ 21,66 Get XLungopt Pict "99" Range 0,15
Read

-- Evaluate action based on the option selected --

Do Case

Case XLungopt = 0
  -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case XLungopt = 1
  Morder = "Chest Pulmonary Therapy"
  Do B:Time

  Do Case
    Case (Timeopt < 22 .Or. Timeopt = 41)
* -- Less than BID or x 2
  Passdata = "068 1"
  Ptpoint = 0
Case (Timeopt > 21 .And. Timeopt < 25)
  * -- BID or x 2
  Passdata = "068 2"
  Ptpoint = 2
Case (Timeopt > 24 .And. Timeopt < 31)
  * -- 1ID or x 3
  Passdata = "068 3"
  Ptpoint = 3
Case (Timeopt > 30 .And. Timeopt < 34)
  * -- QID or x 4
  Passdata = "068 4"
  Ptpoint = 4
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- Q4h or x 6
  Passdata = "068 5"
  Ptpoint = 6
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "068 6"
  Ptpoint = 12
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "068 7"
  Ptpoint = 24
Endcase
Do Repload
Loop

Case Xlungopt = 2
  Morder = "Cough & Deep Breath"
  Do B:Time
  Do Cough
  Do Repload
  Loop

Case Xlungopt = 3
  Morder = "Incentive Spirometer"
  Do B:Time

Do Case
  Case (Timeopt < 31 .Or. Timeopt = 41)
    * -- Less than Q4h or x 6
    Passdata = "064 1"
    Ptpoint = 0
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- Q4h or x 6
Passdata = "064 2"
Ptpoint = 2
Case [Timeopt = 36 .Or. Timeopt = 37]
  * -- Q2h or x 12
  Passdata = "064 3"
Ptpoint = 4
Case [Timeopt = 38 .Or. Timeopt = 39]
  * -- Q1h or x 24
  Passdata = "064 4"
Ptpoint = 8
Endcase

Do Replaad
Loop

Case Xlungopt = 4
  Morder = 'IPPB'
  Do B:Time

  Do Case
    Case [Timeopt < 22 .Or. Timeopt = 41]
      * -- Less than BID or x 2
      Passdata = "066 1"
Ptpoint = 0
    Case [Timeopt > 21 .And. Timeopt < 25]
      * -- BID or x 2
      Passdata = "066 2"
Ptpoint = 2
    Case [Timeopt > 24 .And. Timeopt < 31]
      * -- TID or x 3
      Passdata = "066 3"
Ptpoint = 3
    Case [Timeopt > 30 .And. Timeopt < 34]
      * -- Q1D or x 4
      Passdata = "066 4"
Ptpoint = 4
    Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- Q2h or x 6
      Passdata = "066 5"
Ptpoint = 6
    Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- Q2h or x 12
      Passdata = "066 6"
Ptpoint = 12
    Case [Timeopt = 38 .Or. Timeopt = 39]
      * -- Q1h or x 24
      Passdata = "066 7"
Ptpoint = 24
  Endcase
Do Replaaed
Loop
Case Xlungopt = 5
  Morder = "Suctioning"
  Do B:Time
    Do Case
      Case [Timeopt < 34 .Or. Timeopt = 41]
        * -- Less than Q4h or x 6
        Passdata = "Q69 1"
        Ptpoint = 0
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q69 2"
        Ptpoint = 2
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- Q1h or x 24
        Passdata = "Q68 4"
        Ptpoint = 8
    Endcase
  Do Replaaed
Loop
Case Xlungopt = 6
  Morder = "Trach Care"
  Do B:Time
    Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
        * -- Less than TID or x 3
        Passdata = "Q70 1"
        Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 34]
        * -- TID (x3) or less than Q4h (x 6)
        Passdata = "Q70 2"
        Ptpoint = 4
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q70 3"
        Ptpoint = 8
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- Q2h or x 12
        Passdata = "Q70 4"
        Ptpoint = 16

221
Case (Timeopt = 38, Or. Timeopt = 39)
   • -- Q1h or x 24
   Passdata = "Q70 5"
Ptpoint = 32
Endcase

Do Replaord
Loop

Case Xlungopt = 7
   Morder = "Ventilator"
   Passdata = "Q71 1"
Ptpoint = 10
Do Replaord
Loop

Case Xlungopt = 8
   Morder = "Wean from Ventilator"
   Do B:Time
   Do Replaord
Loop

Case Xlungopt = 9
   Do Liter
   Morder = "Croup Tent " + Xliter
   Do B:Time
   Passdata = "Q67 1"
Ptpoint = 8
Do Replaord
Loop

Case Xlungopt = 10
   Do Liter
   Morder = "Mask " + Xliter
   Do B:Time
   Passdata = "Q63 1"
Ptpoint = 2
Do Replaord
Loop

Case Xlungopt = 11
   Do Liter
   Morder = "Mist Tent " + Xliter
   Do B:Time
   Passdata = "Q67 2"
Ptpoint = 8
Do Replaord
Loop
Case Xlungopt = 12
  Do Liter
  Morder = "Nasal Prongs “ + Xliter
  Do B:Time
  Passdata = "Q63 1"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xlungopt = 13
  Do Liter
  Morder = "Oxyhood “ + Xliter
  Do B:Time
  Passdata = "Q63 2"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xlungopt = 14
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xlungopt = 15
  * -- Master Screen
  Dmenu = ‘’
  Return

Endcase
Release Xlungopt,Xliteropt,Xliter

Enddo
--- MONITOR.PRG ---

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 8 December 1985
- Screen Generated By: The Software Bottling Company
  Of New York, c1985
- Purpose: Determine monitoring orders of the patient.
- Input Files Used: Monitor.Scr and Procfile.Prg
- Output Files Used: Orders.Obf
- Calling Routine: Doc_Menu.Prg
- Routine Called: Time.Prg
- Modification Date: 4 February 1986

--- Screen Input Program For Monitor ---

Do Setup
Public Xmonopt

Do While .T.

- -- Screen Display A:Monitor.Scr --

  Set Color To W+/B, W+/B
  Clear
  ?? Flash="S.A:Monitor.Scr/"
  Set Color To W+/B, W+/B
  Xmonopt = 19
  Do Headings
  Do Startup
  @ 22,66 Get Xmonopt Pict "99" Range 0,20
  Read

- -- Evaluate action based on the option selected --

Do Case

  Case Xmonopt = 0
    * -- Sign-Off
    Close Databases
    Close Procedure
    Release All
    Return To Master

  Case Xmonopt = 1
    Morder = "Apnea Monitor"
    Possdata = "083 1"
    Monpoint = 6
    Do Replaard
    Loop

224
Case Xmonopt = 2
  Morder = "A-line Set-up"
  Passdata = "016 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaord
  Loop

Case Xmonopt = 3
  Morder = "A-line Readings"
  Do B:Time

  Do Case
    Case (Timeopt < 36 .Or. Timeopt = 41)
    * -- Less than Q2h or x 12
      Passdata = "019 1"
      Ptpoint = 0
    Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- Q2h or x 12
      Passdata = "019 2"
      Ptpoint = 2
    Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- Q1h or x 24
      Passdata = "019 3"
      Ptpoint = 4
  Endcase

  Do Replaord
  Loop

Case Xmonopt = 4
  Morder = "Cardiac Monitor"
  Passdata = "082 1"
  Monpoint = 6
  Do Replaord
  Loop

Case Xmonopt = 5
  Morder = "Cardiac Output"
  Do B:Time

  Do Case
    Case (Timeopt < 25 .Or. Timeopt = 41)
    * -- Less than TID or x 3
      Passdata = "022 1"
      Ptpoint = 0
    Case (Timeopt > 24 .And. Timeopt < 34)
    * -- TID [x 3] and less than Q4h [x 6]
      Passdata = "022 2"

225
Ptpoint = 2
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- Q4h or x 6
  Passdata = "Q22 3"
Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q22 4"
Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "Q22 5"
Ptpoint = 16
Endcase
Do Reploord
Loop

Case Xmonopt = 6
  Morder = "Circulation Checks"
  Do B:Time
    Do Case
      Case (Timeopt < 36 .Or. Timeopt = 41)
        * -- Less than Q2h or x 12
        Passdata = "Q10 1"
Ptpoint = 0
      Case (Timeopt = 36 .Or. Timeopt = 37)
        * -- Q2h or x 12
        Passdata = "Q10 2"
Ptpoint = 2
      Case (Timeopt = 38 .Or. Timeopt = 39)
        * -- Q1h or x 24
        Passdata = "Q10 3"
Ptpoint = 4
    Endcase
    Do Reploord
    Loop
  Endcase

Case Xmonopt = 7
  Morder = "CVP Readings (Manually)"
  Do B:Time
    Do Case
      Case (Timeopt < 36 .Or. Timeopt = 41)
        * -- Less than Q2h or x 12
        Passdata = "Q12 1"
Ptpoint = 0
      Case (Timeopt = 36 .Or. Timeopt = 37)
* -- Q2h or × 12
Passdata = "Q12 2"
Ptpoint = 2
Case [Timeopt = 38 Or. Timeopt = 39]
* -- Q1h or × 24
Passdata = "Q12 3"
Ptpoint = 4
Endcase

Do Replaord
Loop

Case Xmonopt = 8
Morder = "Fundus Checks"
Do B:Time

Do Case
Case [Timeopt < 36 Or. Timeopt = 41]
* -- Less than Q2h or × 24
Passdata = "Q14 1"
Ptpoint = 0
Case [Timeopt = 36 Or. Timeopt = 37]
* -- Q2h or × 12
Passdata = "Q14 2"
Ptpoint = 2
Case [Timeopt = 38 Or. Timeopt = 39]
* -- Q1h or × 24
Passdata = "Q14 3"
Ptpoint = 4
Endcase

Do Replaord
Loop

Case Xmonopt = 9
Morder = "Intake & Output"
Do B:Time

Do Case
Case [Timeopt < 25 Or. Timeopt = 41]
* -- Less than Q8h or × 3
Passdata = "Q9 1"
Ptpoint = 0
Case [Timeopt > 24 And. Timeopt < 34]
* -- Q8h (× 3) and less than Q4h (× 6)
Passdata = "Q9 2"
Ptpoint = 2
Case [Timeopt = 34 Or. Timeopt = 35]
* -- Q4h or × 6
Passdata = "Q9 3"
Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "09 4"
  Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "09 5"
  Ptpoint = 16
Endcase

Do Replaard
Loop

Case Xmonopt = 10
  Morder = "ICP (Monitor) Set-Up"
  Passdata = "02 9"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaard
  Loop

Case Xmonopt = 11
  Morder = "Manual ICP Readings"
  Do B:Time

  Do Case
    Case (Timeopt < 36 .Or. Timeopt = 41)
      * -- Less than Q2h or x 12
      Passdata = "013 1"
      Ptpoint = 0
    Case (Timeopt = 36 .Or. Timeopt = 37)
      * -- Q2h or x 12
      Passdata = "013 2"
      Ptpoint = 2
    Case (Timeopt = 38 .Or. Timeopt = 39)
      * -- Q1h or x 24
      Passdata = "013 3"
      Ptpoint = 4
  Endcase

  Do Replaard
  Loop

Case Xmonopt = 12
  Morder = "Monitor ICP Readings"
  Do B:Time

  Do Case
    Case (Timeopt < 36 .Or. Timeopt = 41)
* -- Less than Q2h or x 12
Passdata = "Q20 1"
Ptpoint = 0
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- Q2h or x 12
Passdata = "Q20 2"
Ptpoint = 2
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- Q1h or x 24
Passdata = "Q20 3"
Ptpoint = 4
Endcase
Do Replaord
Loop

Case Xmonopt = 13
Morder = "Neuro Checks"
Do B:Time
Do Case
Case (Timeopt < 34 .Or. Timeopt = 41)
* -- Less than Q4h or x 6
Passdata = "Q11 1"
Ptpoint = 0
Case (Timeopt = 34 .Or. Timeopt = 35)
* -- Q4h or x 6
Passdata = "Q11 2"
Ptpoint = 3
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- Q2h or x 12
Passdata = "Q11 3"
Ptpoint = 6
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- Q1h or x 24
Passdata = "Q11 4"
Ptpoint = 12
Endcase
Do Replaord
Loop

Case Xmonopt = 14
Morder = "Pressure Monitor"
Passdata = "QBS 1"
Monpoint = 6
Do Replaord
Loop
Case Xmonopt = 15
Morder = "PAP/PA Wedge (Readings)"
Do B:Time

Do Case
  Case (Timeopt < 34 . Or. Timeopt = 41)
    • -- Less than 04h or x 6
      Passdata = "Q21 1"
      Ptpoint = 0
  Case (Timeopt = 34 . Or. Timeopt = 35)
    • -- Q4h or x 6
      Passdata = "Q21 2"
      Ptpoint = 2
  Case (Timeopt = 36 . Or. Timeopt = 37)
    • -- Q2h or x 12
      Passdata = "Q21 3"
      Ptpoint = 4
  Case (Timeopt = 38 . Or. Timeopt = 39)
    • -- Q1h or x 24
      Passdata = "Q21 4"
      Ptpoint = 8
Endcase

Do Replaord
Loop

Case Xmonopt = 16
Morder = "Swan-Ganz Set-up"
Passdata = "Q18 1"
Ptpoint = 4
Todayonly = "T"
Do Replaord
Loop

Case Xmonopt = 17
Morder = "Temperature Monitor"
Passdata = "Q84 1"
Monpoint = 6
Do Replaord
Loop

Case Xmonopt = 18
Morder = "Transcutaneous Monitor"
Passdata = "Q15 1"
Ptpoint = 6
Do Replaord
Loop

Case Xmonopt = 19
  • -- Doctor's Order Screen
Dmenu = '1'
Return

Case Xmonopt = 20
   * -- Master Screen
     Dmenu = ' '
     Return
Endcase
Release Xmonopt

Enddo
Author: Gary R. Harmeyer LCDR NC USN
Date: 29 November 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: One of two program modules used to determine pharmacy orders of the patient.
Input Files Used: Monitor.Scr and Procfile.Prg
Output Files Used: Orders.Db
Calling Routine: DocMenu.Prg
Routine Called: Time, Pham2 and Phomhelp.Prg
Modification Date: 4 February 1986

-- Screen Input Program For Pham1 --

Do Setup
Public Xphamlopt

Do While .T.

* -- Screen Display A:Pham1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Pham1.Scr/"
Set Color To W+/B,W+/B
Xphamlopt = 26
Do Headings
Do Startup
@ 22,66 Get Xphamlopt Pict "99" Range 1,27
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xphamlopt = 1
  Morder = "Benadryl 25mg [0]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 2
  Morder = "Benadryl 50mg [IM]"
  Do B:Time
  Do Regmeds

232
Do Reploord
Loop

Case Xphamlopt - 3
 Morder = "Benadryl 50mg (IV)"
 Do B:Time
 Do IVmeds
 Do Reploord
 Loop

Case Xphamlopt - 4
 Morder = "Dimetapp 4mg (O)"
 Do B:Time
 Do Regmeds
 Do Reploord
 Loop

Case Xphamlopt - 5
 Morder = "Dimetapp Elix 5mg (O)"
 Do B:Time
 Do Regmeds
 Do Reploord
 Loop

Case Xphamlopt - 6
 Morder = "Phenergan 25mg (O)"
 Do B:Time
 Do Regmeds
 Do Reploord
 Loop

Case Xphamlopt - 7
 Morder = "Phenergan 25mg (IM)"
 Do B:Time
 Do Regmeds
 Do Reploord
 Loop

Case Xphamlopt - 8
 Morder = "Phenergan 25mg (SP)"
 Do B:Time
 Do Regmeds
 Do Reploord
 Loop

Case Xphamlopt - 9
 Morder = "Ampicillin 250mg (O)"
 Do B:Time
 Do Regmeds
Do Replaoord
Loop
Case Xphamlopt = 10
  Morder = "Ampicillin 500mg (IM)"
  Do B:Time
  Do Regmeds
  Do Replaoord
  Loop

Case Xphamlopt = 11
  Morder = "Ampicillin 500mg (IV)"
  Do B:Time
  Do IVmeds
  Do Replaoord
  Loop

Case Xphamlopt = 12
  Morder = "Ancef .5Gm (IM)"
  Do B:Time
  Do Regmeds
  Do Replaoord
  Loop

Case Xphamlopt = 13
  Morder = "Ancef .5Gm (IV)"
  Do B:Time
  Do IVmeds
  Do Replaoord
  Loop

Case Xphamlopt = 14
  Morder = "Cefadyl 500mg (IM)"
  Do B:Time
  Do Regmeds
  Do Replaoord
  Loop

Case Xphamlopt = 15
  Morder = "Cefadyl 1.0Gm (IM)"
  Do B:Time
  Do Regmeds
  Do Replaoord
  Loop

Case Xphamlopt = 16
  Morder = "Cefadyl 1.0Gm (IV)"
  Do B:Time
  Do IVmeds
Do Replaord
Loop

Case Xphamlopt = 17
Morder = "Erythromycin 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 18
Morder = "Erythromycin Susp 200mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 19
Morder = "Keflex 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 20
Morder = "Keflex Susp 125mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 21
Morder = "Sulfacetamine 10% Solt [Op]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 22
Morder = "Tetracycline 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 23
Morder = "Tetracycline 500mg [IV]"
  Do B:Time
  Do IVmeds
Do Repload
Loop

Case Xphamlopt = 24
* -- Help
Do B:Phamhelp
Loop

Case Xphamlopt = 25
* -- Next Screen (More Meds)
Do B:Pham2
Loop

Case Xphamlopt = 26
* -- Dr's Order Screen
Dmenu = '1'
Return

Case Xphamlopt = 27
* -- Master Screen
Dmenu = ' '
Return

Endcase
Release Xphamlopt

Enddo
**PHAM2.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 29 Nov 1985
- **Screen Generated By:** The Software Bottling Company
- **Of New York, c1985**
- **Purpose:** One of two program modules to determine pharmacy orders of the patient.
- **Input Files Used:** Pham2.Scr and Procfile.Prg
- **Output Files Used:** Orders.DBF
- **Calling Routine:** Phaml.Prg
- **Routine Called:** Time.Prg
- **Modification Date:** 4 February 1986

--- Screen Input Program For Pham2 ---

Do Setup
Public Xpham2opt

Do While .T.

* -- Screen Display A:Pham2.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Pham2.Scr/
Set Color To W+/B,W+/B
Xpham2opt = 24
Do Headings
Do Startup
@ 22,66 Get Xpham2opt Pict "99" Range 1,24
Read

* -- Evaluate action based on the option selected -- *

Do Case

Case Xpham2opt = 1
  Morder = "Boric Acid 5% Solt [1]"
  Do B:Time

Do Case

* -- Expert system data *

Case (Timeopt < 6 .Or. Timeopt = 41)
  Passdata = "048 5"
  Ptpoint = 0
Case (Timeopt > 5 .And. Timeopt < 34)
  Passdata = "048 1"
  Ptpoint = 2

[237]
Case (Timeopt = 34 Or. Timeopt = 35)
  Passdata = "Q48 2"
  Ptpoint = 3
Case (Timeopt = 36 Or. Timeopt = 37)
  Passdata = "Q48 3"
  Ptpoint = 6
Case (Timeopt = 38 Or. Timeopt = 39)
  Passdata = "Q48 4"
  Ptpoint = 12
Endcase

Do Repluard
Loop

Case Xpham2opt = 2
  Morder = "Atropine 0.4mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 3
  Morder = "Atropine 0.4mg [IM]"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 4
  Morder = "Valium Smg [O]"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 5
  Morder = "Valium Smg [IM]"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 6
  Morder = "Valium Smg [IV]"
  Do B:Time
  Do IVmeds
  Do Replaard
  Loop
Case Xpham2opt = 7
  Morder = "Digoxin .125mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 8
  Morder = "Digoxin .250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 9
  Morder = "Inderal 10mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 10
  Morder = "Inderal 40mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 11
  Morder = "Inderal 1mg (IV)"
  Do B:Time
  Do IVmeds
  Do Replaard
  Loop

Case Xpham2opt = 12
  Morder = "Minipres 1mg (0)"
  Do D:Time
  Do Regmeds
  Do Replaard
  Loop

Case Xpham2opt = 13
  Morder = "Minipres 2mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaard
  Loop
Case Xpham20pt = 14
   Morder = "Minipres 5mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 15
   Morder = "Dilantin 100mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 16
   Morder = "Dilantin Supp 125mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 17
   Morder = "Elavil 10mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 18
   Morder = "Elavil 25mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 19
   Morder = "Elavil 50mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop

Case Xpham20pt = 20
   Morder = "Phenobarbital 15mg (0)"
   Do B:Time
   Do Regmeds
   Do Reploord
   Loop
Case Xpham2opt = 21
  Morder = "Phenobarbital 30mg [0]"
  Do B:Time
  Do Regmeds
  Do Repload
  Loop

Case Xpham2opt = 22
  Morder = "Phenobarbital 60mg [IM]"
  Do B:Time
  Do Regmeds
  Do Repload
  Loop

Case Xpham2opt = 23
  * -- Help
  Do B:Phamhelp
  Loop

Case Xpham2opt = 24
  * -- Previous Screen
  Return
Endcase
Release Xpham2opt
Enddo
Purpose: Brief on-line help facility for the Pham1 and Pham2.Prg.

Input Files Used: Phamhelp.Scr and Procfile.Prg

Output Files Used: None

Calling Routine: Pham1 or Pham2.Prg

Routine Called: None

Modification Date: 26 January 1986

--- Screen Input Program For Phamhelp ---

Do Setup

Do While .T.

* -- Screen Display A:Phamhelp.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Phamhelp.Scr/
@ 24,0
@ 24,37 Say "Press Any Key To Continue"
Set Console Off
Wait
Set Console On
Return

Enddo
**ROUTINE.PRG**

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 29 November 1985
- Screen Generated By: The Software Bottling Company
  Of New York, c1985
- Purpose: Determine the ward routine orders of the patient.
- Input Files Used: Routine.Scr and Procfile.Prg
- Output Files Used: Orders.DbF
- Calling Routine: Doc_Menu.Prg
- Routine Called: Time.Prg
- Modification Date: 19 February 1986

---

Do Setup
Public Xrouopt

Do While .T.

  -- Screen Display A:Routine.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Routine.Scr/"
  Set Color To W+/B,W+/B
  Xrouopt = 30
  Do Headings
  Do Startup
  @ 22,66 Get Xrouopt Pict "99" Range 0,31
  Read

  -- Evaluate action based on the option selected --

  Do Case

  Case Xrouopt = 0
    -- Sign-Off
    Close Databases
    Close Procedure
    Release All
    Return To Master

  Case Xrouopt = 1
    Morder = "Ace Wrap Lower Ext"
    Passdata = "036 1"
    Ptpoint = 2
    Do ReplotOrd
    Loop
Case Xrouopt = 2
  Morder = "Chest Tube Insertion"
  Passdata = "QS7 1"
  Ptpoint = 4
  Todayonly = "I"
  Do Replace
  Loop

Case Xrouopt = 3
  Morder = "Circumcision Care"
  Do B:Time
  Passdata = "QS2 1"
  Ptpoint = 2
  Do Replace
  Loop

Case Xrouopt = 4
  Morder = "Complex Dressing Change"
  Do B:Time

  Do Case
  Case (Timeopt < 6 Or. Timeopt = 41)
    * -- Less than one dressing
      Passdata = "Q37 1"
      Ptpoint = 0
  Case (Timeopt > 5 And. Timeopt < 22)
    * -- One dressing change
      Passdata = "Q37 8"
      Ptpoint = 4
  Case (Timeopt > 21 And. Timeopt < 25)
    * -- Two dressing changes
      Passdata = "Q37 9"
      Ptpoint = 8
  Case (Timeopt > 24 And. Timeopt < 31)
    * -- Three dressing changes
      Passdata = "Q37 10"
      Ptpoint = 12
  Case (Timeopt > 30 And. Timeopt < 34)
    * -- Four dressing changes
      Passdata = "Q37 11"
      Ptpoint = 16
  Case (Timeopt = 34 Or. Timeopt = 35)
    * -- Six dressing changes
      Passdata = "Q37 12"
      Ptpoint = 24
  Case (Timeopt = 36 Or. Timeopt = 37)
    * -- Twelve dressing changes
      Passdata = "Q37 13"
      Ptpoint = 48
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Twenty-four dressing changes
  Passdata = "Q37 14"
  Ptpoint = 96
Endcase

Do Repload
Loop

Case Xrouopt = 5
  Morder = "EKG Rhythm Strip"
  Passdata = "Q33 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repload
  Loop

Case Xrouopt = 6
  Morder = "Foley Cath Care"
  Do B:Time
  Do Case
    Case (Timeopt < 22 .Or. Timeopt = 41)
      * -- Tube care less than x 2
        Passdata = "Q39 1"
        Ptpoint = 0
    Case (Timeopt > 21 .And. Timeopt < 25)
      * -- Tube care x 2
        Passdata = "Q39 2"
        Ptpoint = 2
    Case (Timeopt > 24 .And. Timeopt < 31)
      * -- Tube care x 3
        Passdata = "Q39 3"
        Ptpoint = 3
    Case (Timeopt > 30 .And. Timeopt < 34)
      * -- Tube care x 4
        Passdata = "Q39 4"
        Ptpoint = 4
    Case (Timeopt = 34 .Or. Timeopt = 35)
      * -- Tube care x 6
        Passdata = "Q39 5"
        Ptpoint = 6
    Case (Timeopt = 36 .Or. Timeopt = 37)
      * -- Tube care x 12
        Passdata = "Q39 6"
        Ptpoint = 12
    Case (Timeopt = 38 .Or. Timeopt = 39)
      * -- Tube care x 24
        Passdata = "Q39 7"
Ptpoint = 24
Endcase

Do Repeat
Loop

Case Xrouopt = 7
  Morder = "Foley Cath Insertion"
  Passdata = "Q32 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repeat
  Loop

Case Xrouopt = 8
  Morder = "Guiac Stools"
  Do B:Time
  Do Routine
  Do Repeat
  Loop

Case Xrouopt = 9
  Morder = "Respiratory Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Repeat
  Loop

Case Xrouopt = 10
  Morder = "Reverse Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Repeat
  Loop

Case Xrouopt = 11
  Morder = "Strict Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Repeat
  Loop

Case Xrouopt = 12
  Morder = "Lumbar Puncture"
  Passdata = "Q58 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Repeat
  Loop
Case Xrouopt = 13
Morder = "N-G Insertion"
Passdata = "Q31 1"
Ptpoint = 2
Todayonly = "T"
Do Replace
Loop

Case Xrouopt = 14
Morder = "Parencentesis"
Passdata = "Q60 1"
Ptpoint = 4
Todayonly = "T"
Do Replace
Loop

Case Xrouopt = 15
Morder = "Phototherapy"
Passdata = "Q53 1"
Ptpoint = 2
Do Replace
Loop

Case Xrouopt = 16
Morder = "ROM Exercises (Passive)"
Do B:Time
Do Range
Do Replace
Loop

Case Xrouopt = 17
Morder = "2-Point Restaints"
Passdata = "Q50 1"
Ptpoint = 2
Do Replace
Loop

Case Xrouopt = 18
Morder = "4-Point Restraints"
Passdata = "Q50 2"
Ptpoint = 2
Do Replace
Loop

Case Xrouopt = 19
Morder = "Posey Restraint"
Passdata = "Q50 3"
Ptpoint = 2
Do Replace
Loop
Case Xrouopt = 20
Morder = "Simple Dressing Change"
Do B:Time

Do Case
  Case (Timeopt < 22 .Or. Timeopt = 41)
    * -- Less than x 2
      Ptpoint = 0
      Passdata = "037 1"
  Case (Timeopt > 21 .And. Timeopt < 25)
    * -- X 2 or BID
      Passdata = "037 2"
      Ptpoint = 2
  Case (Timeopt > 24 .And. Timeopt < 31)
    * -- X 3 or TID
      Passdata = "037 3"
      Ptpoint = 3
  Case (Timeopt > 30 .And. Timeopt < 34)
    * -- X 4 or QID
      Passdata = "037 4"
      Ptpoint = 4
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- X 6 or Q6h
      Passdata = "037 5"
      Ptpoint = 6
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- X 12 or Q2h
      Passdata = "037 6"
      Ptpoint = 12
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- X 24 or Q1h
      Passdata = "037 7"
      Ptpoint = 24
Endcase

Do Replaord
Loop

Case Xrouopt = 21
Morder = "Spec Gravity"
Do B:Time
Do Routine
Do Replaord
Loop

Case Xrouopt = 22
Morder = "Spin HCT"
Do B:Time
Do Routine
Do Repload
Loop

Case Xrouopt = 23
  Morder = "Straight Cath"
  Do B:Time

  Do Case
    Case (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than x 4
      Passdata = "Q32 2"
      Ptpoint = 0
    Case (Timeopt > 30 .And. Timeopt < 41)
      * -- X 4 or more
      Passdata = "Q32 3"
      Ptpoint = 4
  Endcase

  Do Repload
  Loop

Case Xrouopt = 24
  Morder = "Surgical Shave Prep"
  Passdata = "Q34 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repload
  Loop

Case Xrouopt = 25
  Morder = "SS Enema"
  Passdata = "Q35 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repload
  Loop

Case Xrouopt = 26
  Morder = "Tap Water Enema"
  Passdata = "Q35 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repload
  Loop

Case Xrouopt = 27
  Morder = "Thoracentesis"
  Passdata = "Q59 1"
  Ptpoint = 4
Todayonly = "T"
Do Replaard
Loop

Case Xrouopt = 28
Morder = "Tube Care [not trach]"
Do B:Time

Do Case
  Case (Timeopt < 22 .Or. Timeopt = 41)
    * -- Tube care less than x 2
    Passdata = "038 1"
    Ptpoint = 0
  Case (Timeopt > 21 .And. Timeopt < 25)
    * -- Tube care x 2
    Passdata = "038 2"
    Ptpoint = 2
  Case (Timeopt > 24 .And. Timeopt < 31)
    * -- Tube care x 3
    Passdata = "038 3"
    Ptpoint = 3
  Case (Timeopt > 30 .And. Timeopt < 34)
    * -- Tube care x 4
    Passdata = "038 4"
    Ptpoint = 4
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- Tube care x 6
    Passdata = "038 5"
    Ptpoint = 6
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- Tube care x 12
    Passdata = "038 6"
    Ptpoint = 12
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- Tube care x 24
    Passdata = "038 7"
    Ptpoint = 24
Endcase

Do Replaard
Loop

Case Xrouopt = 29
Morder = "S & A of Urine"
Do B:Time
Do Routine
Do Replaard
Loop
Case Xrouopt = 30
  • -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xrouopt = 31
  • -- Master Screen
  Dmenu = ''
  Return

Endcase
Release Xrouopt

Enddo
--- US.PRG ---

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 29 November 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Determine the vital sign orders of the patient.
- **Input Files Used:** US.Scr and Procfile.Prg
- **Output Files Used:** Orders.Dbf
- **Calling Routine:** Doc_Menu.Prg
- **Routine Called:** Time.Prg
- **Modification Date:** 4 February 1986

--- Screen Input Program For US ---

Do Setup
Public Xvsopt

Do While .T.

  * -- Screen Display A:US.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:US.Scr/
  Set Color To W+/B,W+/B
  Xvsopt = 12
  Do Headings
  Do Startup
  @ 22,66 Get Xvsopt Pict "99" Range 0,13
  Read

  * -- Evaluate action based on the option selected --

  Do Case

  Case Xvsopt = 0
    * -- Sign-Off
    Close Database
    Close Procedure
    Release All
    Return To Master

  Case Xvsopt = 1
    Morder = "T-P-R, B/P"
    Do B:Time

    Do Case
    Case Timeopt < 34
* -- QID or less  
Passdata = "Q1 1"
Ptpoint = 1
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- 04h or x 6  
  Passdate = "Q1 2"
Ptpoint = 2
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- 02h or x 12  
  Passdate = "Q1 3"
Ptpoint = 4
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- 01h or x 24  
  Passdate = "Q1 4"
Ptpoint = 8
Case Timeopt = 41
  * -- No frequency indicated  
  Passdate = "Q1 5"
Ptpoint = 0
Endcase

Do Replaord
Loop

Case Xvsopt = 2
  Morder = "Post-op"
  Passdata = "Q8 1"
Ptpoint = 6
  Todayonly = "T"
  Do Replaord
Loop

Case Xvsop = 3
  Morder = "Post Partum"
  Passdata = "Q8 2"
Ptpoint = 6
  Todayonly = "T"
  Do Replaord
Loop

Case Xvsop = 4
  Morder = "Post Newborn"
  Passdata = "Q8 3"
Ptpoint = 6
  Todayonly = "T"
  Do Replaord
Loop
Case Xvsopt = 5
  Morder = "FHT"
  Do B:Time
    If [Timeopt < 34 .Or. Timeopt = 41]
      * -- Less than Q4h
        Passdata = "Q6 1"
        Ptpoint = 0
    Else
      * -- Q4h or more
        Passdata = "Q6 2"
        Ptpoint = 2
    Endif
  Do Replaord
  Loop
Case Xvsopt = 6
  Morder = "Apical Pulse"
  Do B:Time
    If [Timeopt < 31 .Or. Timeopt = 41]
      * -- Less than Q1D
        Passdata = "Q3 1"
        Ptpoint = 0
    Else
      * -- Q1D or more
        Passdata = "Q3 2"
        Ptpoint = 2
    Endif
  Do Replaord
  Loop
Case Xvsopt = 7
  Morder = "Femoral Pulse"
  Do B:Time
    If [Timeopt < 34 .Or. Timeopt = 41]
      * -- Less than Q4h
        Passdata = "Q4 1"
        Ptpoint = 0
    Else
      * -- Q4h or more
        Passdata = "Q4 2"
        Ptpoint = 2
    Endif
  Do Replaord
  Loop
Case Xvsopt = 8
  Morder = "Pedal Pulse"
  Do B:Time
    If (Timeopt < 34 .Or. Timeopt = 41)
      * -- Less than Q4h
        Passdata = "Q5 1"
        Ptpoint = 0
    Else
      * -- Q4h or more
        Passdata = "Q5 2"
        Ptpoint = 2
    Endif
  Do Replaord
  Loop
Case Xvsopt = 9
  Morder = "Axillary Temps"
  Do B:Time
    If (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than Q1D
        Passdata = "Q2 2"
        Ptpoint = 0
    Else
      * -- Q1D or more
        Passdata = "Q2 4"
        Ptpoint = 2
    Endif
  Do Replaord
  Loop
Case Xvsopt = 10
  Morder = "Rectal Temps"
  Do B:Time
    If (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than Q1D
        Passdata = "Q2 1"
        Ptpoint = 0
    Else
      * -- Q1D or more
        Passdata = "Q2 3"
        Ptpoint = 2
    Endif
Do Repload
Loop

Case Xvsopt = 11
Morder = "Tilt Test"
Do B:Time

If (Timeopt < 34 .Or. Timeopt = 41)
   * -- Less than Q4h
   Passdate = "Q7 1"
   Ptpoint = 0
Else
   * -- Q4h or more
   Passdate = "Q7 2"
   Ptpoint = 2
Endif

Do Repload
Loop

Case Xvsopt = 12
* -- Doctor's Order Screen
Dmenu = '1'
Return

Case Xvsopt = 13
* -- Master Screen
Dmenu = ' '
Return

Endcase
Release Xvsopt

Enddo
***** XRAY.PRG *****

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 8 December 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Determine xray orders for the patient.
- Input Files Used: Xray.Scr and Procfile.Prg
- Output Files Used: Orders.Dbf
- Calling Routine: Doc_Menu.Prg
- Routine Called: Time.Prg
- Modification Date: 4 February 1986

-- Screen Input Program For Xray --

Do Setup
Public Xxrayopt

Do While .T.

-- Screen Display B:Xray.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Xray.Scr/
Set Color To W+/B,W+/B
Xxrayopt = 19
Do Headings
Do Startup
@ 22,66 Get Xxrayopt Pict "99" Range 0,20
Read

-- Evaluate action based on the option selected --

Do Case

Case Xxrayopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xxrayopt = 1
Morder = "Abdomen Flat Plate Xray"
Do B:Time
Do Repload
Loop
Case Xxrayopt - 2
  Morder = "Abdomen AP Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 3
  Morder = "Abdomen 3-way Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 4
  Morder = "Angiography"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 5
  Morder = "Arteriography"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 6
  Morder = "Barium Enema"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 7
  Morder = "Brain Scan"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 8
  Morder = "Chest PA Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 9
  Morder = "Chest Lateral Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt - 10
  Morder = "CT Scan"
Do B:Time
Do Replaord
Loop
Case Xxrayopt = 11
  Morder = "Gallbladder Series"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 12
  Morder = "IVP"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 13
  Morder = "Sinus Series"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 14
  Morder = "Skull Xray"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 15
  Morder = "Spine Xray"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 16
  Morder = "Tomography"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 17
  Morder = "Upper GI Series"
  Do B:Time
  Do Replaord
  Loop
Case Xxrayopt = 18
  Morder = "Ultrasound"
  Do B:Time
Do Repload
Loop

Case Xxrayopt = 19
   * -- Doctor's Order Screen
   Dmenu = '1'
   Return

Case Xxrayopt = 20
   * -- Master Screen
   Dmenu = '
   Return

Endcase
Release Xxrayopt

Enddo
**DISCONT.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 18 December 1985
- **Screen Generated By:** The Software Bottling Company
  Of New York, c1985
- **Purpose:** Display patient orders to determine if any are to be discontinued.
- **Input Files Used:** Discont.Scr and Procfile.Pr6
- **Output Files Used:** Orders.Dbf
- **Calling Routine:** Doctor.Prg
- **Routine Calls:** None
- **Modification Date:** 18 February 1986

---

Program Description:

Do Setup
Public Xdisopt,Xdcdate,Xdcorder,Xdcprac
Public Xdcfreq,Xmptfmpssn,Xordpack
Xordpack = .F.

-- Identify correct patient to display orders --

Use B:Orders
Store "" + Ptfmpssn + "" To Xmptfmpssn
Locate For Fmpssn = &Xmptfmpssn .And. Module # 'N'

Do While .T.

-- Store data from Dbf file into variable names --

Xdcdate = Odate
Xdctime = Otime
Xdcorder = Order
Xdcfreq = Freq
Xdcprac = Prac

-- Screen Display A:Discont.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Discont.Scr/"
Set Color To W+/B,W+/B
Xdisopt = 1
Do Headings
@ 13,1 Say Xdcdate
@ 13,10 Say Xdctime
@ 13,19 Say Xdcorder
@ 13,47 Say Xdcfreq
@ 13,60 Say Xdcprac
@ 22,67 Get Xdisopt Pict "9" Range 0,4
Read

* -- Evaluate action based on the option selected -- *

Do Case

Case Xdisopt = 0
  * -- Sign-Off
  If Xordpack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdisopt = 1
  * -- Next Order
  Skip
  Do While [%Fmpssn & Xmptfmpssn].Or.[Module = "N"]
    If EOF[
      @ 24,4 Say "No Additional Medical Orders On "
      @ 24,36 Say "This Patient -- Press Any Key To"
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      If Xordpack = .T.
        Pack
      Endif
      Return
    Else
      Skip
      Endif
  Enddo
  If EOF[
    @ 24,4 Say "No Additional Medical Orders On "
    @ 24,36 Say "This Patient -- Press Any Key To"
    @ 24,69 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    If Xordpack = .T.
      Pack
    Endif
    Return
  Else
    Loop
  Endif

262
Case Xdisopt - 2
*  -- Discontinue The Order
   Xordpack = .T.
   Delete
   Skip
Do While (Fmpssn # &Xmplfmpssn).Or.(Module = "N")
   If EOF()
      @ 24,4 Say "No Additional Medical Orders On "
      @ 24,36 Say "This Patient  -- Press Any Key To "
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      Pack
      Return
      Else
      Skip
      Endif
   Enddo
   If EOF ()
      @ 24,4 Say "No Additional Medical Orders On "
      @ 24,36 Say "This Patient  -- Press Any Key To "
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      Pack
      Return
      Else
      Loop
      Endif
   Endf

Case Xdisopt - 3
*  -- Dr's Master
   If Xordpack = .T.
      Pack
      Endif
   Omenu = "I"
   Return

Case Xdisopt - 4
*  -- Master
   If Xordpack = .T.
      Pack
      Endif
   Omenu = " "
   Return
Endcase
Release Xdisopt, Xdcdate, Xdcorder, Xdcprac
Release Xdcfreq, Xmptfmpssn, Xordpack

Enddo
**TRANSFER.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 9 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Of New York, c1985**
- **Purpose:** Menu to determine if patient will be admitted, transferred or discharged.
- **Input Files Used:** Transfer.Scr and Procfile.Prg
- **Output Files Used:** Orders.Db
- **Calling Routine:** Doctor.Prg
- **Routine Called:** None
- **Modification Date:** 4 February 1986

**-- Screen Input Program For Transfer --**

Do Setup
Public Xtranopt

Do While .T.

- **-- Screen Display A:Transfer.Scr --**

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Transfer.Scr/
  Set Color To W+/B,W+/B
  Xtranopt = 4
  Do Headings
  Do Startup
  @ 22,67 Get Xtranopt Pict "9" Range 0,5
  Read

- **-- Evaluate action based on the option selected --**

Do Case

  Case Xtranopt = 0
  * -- Sign-Off
    Close Databases
    Release All
    Close Procedure

  Case Xtranopt = 1
    Morder = "Admit"
    Passdata = "62 2"
    Ptpoint = 12
    Todayonly = "T"
Do Replaord
Loop

Case Xtranopt = 2
Morder = "Transfer"
Passdata = "62 1"
Ptpoint = 4
Todayonly = "I"
Do Replaord
Loop

Case Xtranopt = 3
Morder = "Discharge"
Do Replaord
Loop

Case Xtranopt = 4
* -- Doctor's Master Screen
Dmenu = '1'
Return

Case Xtranopt = 5
* -- Master Screen
Dmenu = ''
Return

Endcase
Release Xtranopt

Enddo
NURSE.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 20 December 1885
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Provide the nurse options of entering or reviewing nursing care plans. The module allows the nurse to determine the patient classification level either internally or externally.
Input Files Used: Nurse.Scr and Procfile.Prg
Output Files Used: Orders and Ncaredb.Dbf
Output File Created: Return.Txt
Calling Routine: Ward2 or Ward3.Prg
Routine Calls: Nursel.Prg
Modification Date: 3 March 1986

-- Screen Input Program For Nurse --

Do Setup
Public Xnuropt,Nmenu,Xpoints,Xmonpt,Xemopt,Xroupt,Xlevel
Public Xnow,Xtoday
Nmenu = Space(1)
Xpoints = 0
Xmonpt = 0
Xemopt = 0
Xroupt = 0
Xlevel = Space(12)
Store DTOC(Date[]) To Xnow
Store "" + Xnow + "" To Xtoday

Do While .T.

-- Screen Display A:Nurse.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Nurse.Scr/"
Set Color To W+/B,W+/B
Xnuropt = 8
Do Headings
@ 22,67 Get Xnuropt Pict "9" Range 0,8
Read

-- Evaluate action based on the option selected --

Do Case
Case Xnuropt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xnuropt = 1
  * -- Enter/Inactivate Nursing Care Plan
  Do B:Nurse1
  If Nmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xnuropt = 2
  * -- Review Nursing Care Plan
  Clear
  Set Color To W+/B,W+/B
  @ 1,20 Say "Nursing Care Plan For:"
  @ 1,43 Say Ourpt
  @ 3,10 Say "Press -- Ctrl and S -- Keys "
  @ 3,38 Say "to Pause The Scrolling If Necessary"
  Use B:Ncaredb
  Store "" + Pfmpssn + "" To Mptfmpssn
  Report Form B:NC For NFmpssn = &mptfmpssn
  Wait
  Loop

Case Xnuropt = 3
  * -- Print Nursing Care Plan
  @ 24,0 Say "Turn On Your Printer, "
  @ 24,22 Say "Then Hit Any Key To Print"
  Set Console Off
  Wait
  Set Console On
  Clear
  @ 12,30 Say "Printing, Please Wait"
  Set Console Off
  Set Device To Print
  @ 1,20 Say "Nursing Care Plan For:"
  @ 1,43 Say Ourpt
  Set Device To Screen
  Use B:Ncaredb
  Store "" + Pfmpssn + "" To Mptfmpssn
  Report Form B:NC Noeject;
  To Print For NFmpssn = &mptfmpssn
  Set Console On
  @ 24,0 Say "Finished Printing, Hit "

263
Case Xnuropt - 4
  * -- Determine Patient Classification Level
  Use B:Orders
  Store "" + Ptfmpssn + "" To Mptfmpssn
  Copy To B:Return Fields ExpertSys Sdf;
    Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
    [Onlytoday = "T" .And. Odate = &Xtoday])
  Close Procedure
  Close Databases
  Release All
  * -- Exit this portion of prototype software
  Quit

Case Xnuropt - 5
  * -- Review Patient Care Requirements
  Clear
  Set Color To W+/B,W+/B
  @ 1,17 Say "Patient Care Requirements For:"
  @ 1,48 Say Ourpt
  @ 3,10 Say "Press -- Ctrl and S -- Keys To Pause"
  @ 3,47 Say "The Scrolling If Necessary"
  Use B:Orders
  Store "" + Ptfmpssn + "" To Mptfmpssn
  Report Form B:Ord For;
    Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
    [Onlytoday = "T" .And. Odate = &Xtoday])
  Wait
  Loop

Case Xnuropt - 6
  * -- Print Patient Care Requirements
  @ 24,0 Say "Turn On Your Printer,"
  @ 24,23 Say "Then Hit Any Key To Print"
  Set Console Off
  Wait
  Set Console On
  Clear
  @ 12,30 Say "Printing, Please Wait"
  Set Console Off
  Set Device To Print
  @ 1,17 Say "Patient Care Requirements For:"
  @ 1,47 Say Ourpt
  Set Device To Screen
  Use B:Orders
Store "" + PtFmpssn + "" To MptFmpssn
Report Form B:Ord No eject To Print For;
    Fmpssn = &mptFmpssn .And. (Onlytoday = "F" .Or.;
        [Onlytoday = "I" .And. Odate = &Xtoday])
Set Console On
@ 24,0 Say "Finished Printing, Hit "
@ 24,23 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuopt = 7
    * -- Internal Patient Classification
    Clear
    Set Color To W+/B,W+/B
@ 7,2S Say "Please Wait While Calculating"
Use B:Orders
Store "" + PtFmpssn + "" To MptFmpssn
Sum Critical To Xpoints For;
    Fmpssn = &mptFmpssn .And. (Onlytoday = "F" .Or.;
        [Onlytoday = "I" .And. Odate = &Xtoday])
Sum Monpt To Xmonpt For;
    Fmpssn = &mptFmpssn .And. (Onlytoday = "F" .Or.;
        [Onlytoday = "I" .And. Odate = &Xtoday])
If Xmonpt > 0
    Xpoints = Xpoints + 6
Endif
Sum Emopt To Xemopt For;
    Fmpssn = &mptFmpssn .And. (Onlytoday = "F" .Or.;
        [Onlytoday = "I" .And. Odate = &Xtoday])
If Xemopt >= 10
    Xpoints = Xpoints + 10
Else
    Xpoints = Xpoints + Xemopt
Endif
Sum Roupt To Xroupt For;
    Fmpssn = &mptFmpssn .And. (Onlytoday = "F" .Or.;
        [Onlytoday = "I" .And. Odate = &Xtoday])
Do Case
    Case Xroupt < 6
        Xpoints = Xpoints + 0
    Case (Xroupt > 5 .And. Xroupt < 12)
        Xpoints = Xpoints + 2
    Case (Xroupt > 11 .And. Xroupt < 18)
        Xpoints = Xpoints + 4
    Case (Xroupt > 17 .And. Xroupt < 24)
        Xpoints = Xpoints + 6
Case Xroupt > 23
  Xpoints = Xpoints + 8
Endcase

* -- Determine patient classification level based on
* -- patient care points --

Do Case
  Case Xpoints < 13
    Xlevel = "Category I"
  Case [Xpoints > 12 .And. Xpoints < 32]
    Xlevel = "Category II"
  Case [Xpoints > 31 .And. Xpoints < 64]
    Xlevel = "Category III"
  Case [Xpoints > 63 .And. Xpoints < 96]
    Xlevel = "Category IV"
  Case [Xpoints > 95 .And. Xpoints < 146]
    Xlevel = "Category V"
  Case Xpoints > 146
    Xlevel = "Category IV"
Endcase

Clear
Set Color To W+/B,W+/B
@ 7,30 Say "Patient: "
@ 7,39 Say Ourpt
@ 8,30 Say "Is In: "
@ 8,37 Say Xlevel
@ 10,30 Say "Point Value Is:"
@ 10,46 Say Xpoints
@ 24,0 Say "Calculation Complete -- "
@ 24,24 Say "Press Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuropt = 8
  * -- Master Screen
Return

Endcase
Release Xnuropt,Xpoints,Xmonpt,Xemopt,XroupX,Xlevel
Release Xnow,Xtoday

Enddo
***** NURSE1.PRG  

* Author: Gary R. Harmeyer LCDR NC USN  
* Date: 20 December 1985  
* Screen Generated By: The Software Bottling Company  
* Date: Of New York, c1985  
* Purpose: Enables the nurse to enter or modify a nursing care plan.  
* Input Files Used: Nursel.Scr and Procfile.Prg  
* Output Files Used: None  
* Calling Routine: Nurse.Prg  
* Routine Calls: N_Diag or Inact.Prg  
* Modification Date: 4 February 1986  

* -- Screen Input Program For Nursel --  
Do Setup  
Public Xnurslopt  
Do While .T.  

* -- Screen Display A:Nurse1.Scr --  

Set Color To W+/B,W+/B  
Clear  
?? Flash+"S.A:Nurse1.Scr/"  
Set Color To W+/B,W+/B  
Xnurslopt = 4  
Do Headings  
@ 22,67 Get Xnurslopt Pict "9" Range 0,4  
Read  

* -- Evaluate action based on the option selected --  

Do Case  

Case Xnurslopt = 0  
* -- Sign-Off  
Close Databases  
Close Procedure  
Release All  
Return To Master  

Case Xnurslopt = 1  
* -- Enter A New Care Plan  
Do B:N_Diag  
Return  

Case Xnurslopt = 2  
* -- Inactivate A Nursing Care Plan  

272
Do B: Inactive
Return

Case Xnurslopt = 3
  * -- Nurse's Master Screen
  Nmenu = "1"
  Return

Case Xnurslopt = 4
  * -- Master Screen
  Store ' ' To Nmenu
  Return

Endcase
Release Xnurslopt

Enddo
--- Screen Input Program For N_Diag ---

Do Setup
Public Xndiagopt,Nursdiag,Emoteach,Nrelate,Ngoal,Nassess
Public Assoth,Reloth,Goooth,Ordoth
Nursdiag = Space[30]
Emoteach = Space[19]
Nrelate = Space[25]
Ngoal = Space[38]
Nassess = Space[27]
Assoth = Space[27]
Reloth = Space[25]
Goooth = Space[38]
Ordoth = Space[27]

Do While .T.

* -- Screen Display A:N_Diag.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+$S.A:N_Diag.Scr/"
Set Color To W+/B,W+/B
Xndiagopt = S
Do Headings
Do Startup
@ 22,67 Get Xndiagopt Pict "9" Range 0,6
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xndiagopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xndiagopt = 1
  Nursdiag = "Comfort Alteration In: Pain"
  Do B:Assess_1
  Loop

Case Xndiagopt = 2
  Nursdiag = "Communication Impaired: Verbal"
  Do B:Assess_2
  Loop

Case Xndiagopt = 3
  Nursdiag = "Impaired Physical Mobility"
  Do B:Assess_3
  Loop

Case Xndiagopt = 4
  Nursdiag = "Self-Care Deficit"
  Do B:Assess_4
  Loop

Case Xndiagopt = 5
  * -- Nurse's Master Screen
  Nmenu = "1"
  Return

Case Xndiagopt = 6
  * -- Master Screen
  Nmenu = " "
  Return

Endcase
Release Xndiagopt

Enddo
ASSESS_1.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 20 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to select nursing assessments for a patient with a nursing diagnosis of comfort alteration in: pain.

Input Files Used: Assess_1.Scr and Procfile.Prg
Output Files Used: None
Calling Routine: N_Diag.Prg
Routine Called: Relate_1.Prg
Modification Date: 3 February 1986

--- Screen Input Program For Assess_1 ---

Do Setup
Public Xasslopt

Do While .T.

--- Screen Display A:Assess_1.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Assess_1.Scr/"
Set Color To W+/B,W+/B
Xasslopt = 11
Do Headings
@ 22,66 Get Xasslopt Pict "99" Range1,16
Read

--- Allows the nurse to document assessment of the patient ---

Do Case

Case Xasslopt = 1
Nassess = "Altered Time Perception"
Do B:Relate_1
Return

Case Xasslopt = 2
Nassess = "Alteration In Muscle Tone"
Do B:Relate_1
Return
Case Xasslopt = 3
  Nassess = "Autonomic Response"
  Do B:Relate_1
  Return

Case Xasslopt = 4
  Nassess = "Distraction Behavior"
  Do B:Relate_1
  Return

Case Xasslopt = 5
  Nassess = "Facial Mask"
  Do B:Relate_1
  Return

Case Xasslopt = 6
  @ 18,24 Get Assoth;
  \* Pict "$XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_1
  Return

Case Xasslopt = 7
  Nassess = "Guarding Behavior"
  Do B:Relate_1
  Return

Case Xasslopt = 8
  Nassess = "Impaired Thought Process"
  Do B:Relate_1
  Return

Case Xasslopt = 9
  Nassess = "Narrowing Focus"
  Do B:Relate_1
  Return

Case Xasslopt = 10
  Nassess = "Pacing"
  Do B:Relate_1
  Return

Case Xasslopt = 11
  Nassess = "Patient Report"
  Do B:Relate_1
  Return

Case Xasslopt = 12
  Nassess = "Self_Focusing"

277
Do B:Relate_1
Return

Case Xasslopt = 13
   Nassess = "Talkative"
   Do B:Relate_1
   Return

Case Xasslopt = 14
   Nassess = "Verbal Complaint"
   Do B:Relate_1
   Return

Case Xasslopt = 15
   Nassess = "Verbal Complaint"
   Do B:Relate_1
   Return

Case Xasslopt = 16
   Nassess = "W/draw From Social Contact"
   Do B:Relate_1
   Return

Endcase
Release Xasslopt

Enddo
**RELATE_1.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 20 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of comfort alteration in: pain.
- **Input Files Used:** Relate_1.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Assess_1.Prg
- **Routine Called:** Goal_1.Prg
- **Modification Date:** 1 February 1986

---

**-- Screen Input Program For Relate_1 --**

Do Setup
Public Xrellopt

Do While .T.

- **-- Screen Display A:Relate_1.Scr --**

    Set Color To W+/B,W+/B
    Clear
    ?? Flash+"S.A:Relate_1.Scr/"
    Set Color To W+/B,W+/B
    Xrellopt = 2
    Do Headings
    @ 22,67 Get Xrellopt Pict "9" Range 1,7
    Read

- **-- Previous assessment is related to some cause --**

Do Case

Case Xrellopt = 1
    Nrelate = "Altered Sensation"
    Do B:Goal_1
    Return

Case Xrellopt = 2
    Nrelate = "Disease / Condition"
    Do B:Goal_1
    Return

Case Xrellopt = 3
    Nrelate = "Emotional State"
Do B:Goal_1
  Return

Case Xrellopt = 4
  @ 17,14 Get Reloth;
      Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_1
  Return

Case Xrellopt = 5
  Nrelate = "Surgical Procedure"
  Do B:Goal_1
  Return

Case Xrellopt = 6
  Nrelate = "Trauma"
  Do B:Goal_1
  Return

Case Xrellopt = 7
  Nrelate = "Treatment Regime"
  Do B:Goal_1
  Return

Endcase
  Release Xrellopt

Enddo
**** GOAL_1.PRG **********

* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   20 December 1985
* Screen Generated By:    The Software Bottling Company
*                       Of New York, c1985
* Purpose:                Provides a menu for the nurse to
*                        select a patient goal for a
*                        patient with a nursing diagnosis
*                        of comfort alteration in: pain.
* Input Files Used:       Goal_1.Scr and Procfile.Prg
* Output Files Used:      None
* Calling Routine Used:   Relate_1.Prg
* Routine Called:         Norder1A or Norder1B.Prg
* Modification Date:      3 February 1986

* -- Screen Input Program For Goal_1 --

Do Setup
Public Xgoaalopt

Do While .T.

* -- Screen Display A:Goal_1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Goal_1.Scr/"
Set Color To W+/B,W+/B
Xgoaalopt = 2
Do Headings
@ 22,67 Get Xgoaalopt Pict "9" Range 1,5
Read

* -- Allows nurse to select specific goal attainable
* -- by this patient --

Do Case

Case Xgoaalopt = 1
    Ngoal = "Communicates Pain Free"
    Do B:Norder1A
    Return

Case Xgoaalopt = 2
    Ngoal = "Communicates Experiences Less Pain"
    Do B:Norder1A
    Return

281
Case Xgoalopt = 3
    Ngoal = "Communicates Experience Tolerable Pain"
    Do B:Norder1A
    Return

Case Xgoalopt = 4
    Ngoal = "Demos Skills/Knowledge To Achieve Goal"
    Do B:Norder1B
    Return

Case Xgoalopt = 5
    @ 17,34 Get Goalth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Ngoal = Goalth
    Do B:Norder1A
    Return

Endcase
Release Xgoalopt

Enddo
--- NORDER1A.PRG ---

Author: Gary R. Harmeyer LCDR NC USN
Date: 20 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to
select a nursing order for a pa-
tient whose goal is communicates
experiences less/tolerable pain
or is pain free.
Input Files Used: Norder1A.Scr, Time, Emosup, Teach
and Procfile.Prg
Output Files Used: Orders.Dbf and Ncaredb.Dbf
Calling Routine: Goal_1.Prg
Routine Called: None
Modification Date: 3 February 1986

-- Screen Input Program For Norder1A --

Do Setup
Public Xnordlaopt

Do While .T.

-- Screen Display A:Norder1A.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder1A.Scr/"
Set Color To W+/B,W+/B
Xnordlaopt = 10
Do Headings
@ 22,66 Get Xnordlaopt Pict "99" Range 1,10
Read

-- Nursing orders are determined by evaluating the
-- case statement, then place data into Ncaredb and
-- Orders.Dbf files --

Do Case

Case Xnordlaopt = 1
Morder = "Assess Pain Factors"
Do B:Time
Do Reploord
Do Repnroard
Return
Case Xnordlaopt - 2
  Morder - "Assess/Evaluate Pain"
  Do B:Time
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 3
  Morder - "Encour To Use Coping Skills"
  Do B:Time
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 4
  Morder - "Explain Proc & Tests"
  Do B:Time
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 5
  @ 16,10 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 6
  Morder - "Offer PRN Medications"
  Do B:Time
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 7
  Morder - "Provide Emotional Support"
  Do B:Emosup
  Do Replaard
  Do Repnrord
  Return

Case Xnordlaopt - 8
  Morder - "Schedule Quiet Times"
  Do B:Time
  Do Replaard

284
Do Repnord
Return

Case Xnordlaopt = 9
   Morder = "Teach Alt Coping Strategies"
   Do B:Teach
   Do Reploard
   Do Repnord
   Return

Case Xnordlaopt = 10
   Morder = "Util Diversional Activities"
   Do B:Time
   Do Reploard
   Do Repnord
   Return

Endcase
Release Xnordlaopt

Enddo
**NORDER1B.PRG**

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 20 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is demonstrates skills and knowledge to achieve goals.
* Input Files Used: Norder1B.Scr, Teach & Procfile.Prg
* Output Files Used: Orders.DbF and Ncaredb.DbF
* Calling Routine: Goal_1.Prg
* Routine Called: None
* Modification Date: 1 February 1986

--- Screen Input Program For Norder1B --

Do Setup
Public Xnord1bopt

Do While .T.

--- Screen Display A:Norder1B.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder1B.Scr/"
Set Color To W+/B,W+/B
Xnord1bopt = 1
Do Headings
@ 22,67 Get Xnord1bopt Pict "9" Range 1,5
Read

--- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.DbF files ---

Do Case

Case Xnord1bopt = 1
    Morder = "Teach: Deep Breathing Exer"
    Do B:Teach
    Do Replaord
    Do Repnrord
    Return

Case Xnord1bopt = 2
    Morder = "Teach: Prog/sive Relax Exer"

236
Morder - "Teach: Deep Breathing Exer"
Do B:Teach
Do Replaord
Do Repnrord
Return

Case Xnord1bopt = 2
Morder - "Teach: Prog/sive Relax Exer"
Do B:Teach
Do Replaord
Do Repnrord
Return

Case Xnord1bopt = 3
Morder - "Teach: Relaxation Response"
Do B:Teach
Do Replaord
Do Repnrord
Return

Case Xnord1bopt = 4
Morder - "Teach: Diversional Activity"
Do B:Teach
Do Replaord
Do Repnrord
Return

Case Xnord1bopt = 5
Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder - Ordoth
Do B:Teach
Do Replaord
Do Repnrord
Return
Endcase
Release Xnord1bopt
Enddo
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS
NURSE CARE PLANNING AND PATIENT CLASSIFICATION (U)
POSTGRADUATE SCHOOL MONTEREY CA  G R HAMHEVR MAR 86
UNCLASSIFIED
--- TEACH.PRG ---

** Author: Gary R. Harmeyer LCDR NC USN
** Date: 23 December 1985
** Screen Generated By: The Software Bottling Company Of New York, c1985
** Purpose: Provides a menu to select teaching requirements of the patient.
** Input Files Used: Teach.Scr and Procfile.Prg
** Output Files Used: None
** Calling Routine: Norder1A, Norder1B, Norder2C, and order3E.Prg
** Routine Called: None
** Modification Date: 3 February 1986

--- Screen Input Program For Teach ---

Do Setup
Public Xteachopt
Xteachopt = Space(1)

Do While .T.

* -- Screen Display A: Teach.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Teach.Scr/
Set Color To W+/B,W+/B
@ 19,54 Get Xteachopt Pict ":"
Read

* -- Validate response --

Do While .Not. (Xteachopt ="A" .Or. Xteachopt ="B" .Or.;
Xteachopt ="C" .Or. Xteachopt="D")
@ 19,53 Clear
Store ":" To Xteachopt
@ 24,0 Say "Re-Enter Letter A, B, C, or D"
@ 19,54 Get Xteachopt Pict ":"
Read
Enddo

* -- Determine teaching requirements by evaluating
* -- option selected --

Do Case

Case Xteachopt = "A"
   Emoteach = "Group Teaching"
Passdata = "076 1"
Ptpoint = 2
Return

Case Xteachopt = "B"
   Emoteach = "Pre-op Teaching"
   Passdata = "077 1"
   Ptpoint = 4
   Todayonly = "T"
   Return

Case Xteachopt = "C"
   * -- Return to previous screen
   Return

Case Xteachopt = "D"
   Emoteach = "Structured Teaching"
   Passdata = "078 1"
   Ptpoint = 4
   Return

Endcase
Release Xteachopt

Enddo
--- EMOSUP.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Provides a menu to select emotional support requirements of the patient.
* Input Files Used: Emosup.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Norder4A, Norder4C, Norder4D, and Norder4E.Prg
* Routine Called: None
* Modification Date: 25 January 1986

-- Screen Input Program For Emosup --

Do Setup
Public Xesupopt
Xesupopt = Space(1)

Do While .T.

* -- Screen Display A:Emosup.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S:A:Emosup.Scr/"
Set Color To W+/B,W+/B
@ 21,54 Get Xesupopt Pict ":"
Read

* -- Validate response --

Do While .Not. (Xesupopt ="A" .Or. Xesupopt ="B" .Or. Xesupopt ="C" .Or. Xesupopt ="D")
  @ 21,53 Clear
  Store ' ' To Xesupopt
  @ 24,0 Say "Re-Enter Letter A, B, C, or D"
  @ 21,54 Get Xesupopt Pict ":"
  Read
Enddo

* -- Determine emotional support requirements by evaluating the option selected --

Do Case
Case Xesupopt = "A"
   Emoteach = "Pt/Family Support"
   Passdata = "079 1"
   Emopoint = 4
   Return

Case Xesupopt = "B"
   Emoteach = "Modify Lifestyle"
   Passdata = "Q80 1"
   Emopoint = 4
   Return

Case Xesupopt = "C"
   Emoteach = "Sensory Deprivation"
   Passdata = "081 1"
   Emopoint = 6
   Return

Case Xesupopt = "D"
   * -- Return to previous screen
   Return

Endcase
Release Xesupopt

Enddo
ASSESS_2.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to
select nursing assessment for a
patient with a nursing diagnosis
of communication impairment:
verbal.
Input Files Used: Assess_2.Scr and Procfile.Prg
Output Files Used: None
Calling Routine: N_Diag.Prg
Routine Called: Relate_2.Prg
Modification Date: 3 February 1986

-- Screen Input Program For Assess_2 --

Do Setup
Public Xass2opt

Do While .T.

-- Screen Display A:Assess_2.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Assess_2.Scr/"
Set Color To W+/B,W+/B
Xass2opt = 01
Do Headings
@ 22,67 Get Xass2opt Pict "99" Range 1,13
Read

-- Allows nurse to document assessment of the
-- patient --

Do Case

Case Xass2opt = 1
    Nassess = "Anxiety"
    Do B:Relate_2
    Return

Case Xass2opt = 2
    Nassess = "Disorientation"
    Do B:Relate_2
    Return
Case Xass2opt = 3
    Nassess = "Fear"
    Do B:Relate_2
    Return

Case Xass2opt = 4
    Nassess = "Frustration"
    Do B:Relate_2
    Return

Case Xass2opt = 5
    @ 17,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Nassess = Assoth
    Do B:Relate_2
    Return

Case Xass2opt = 6
    Nassess = "Inability to Hear"
    Do B:Relate_2
    Return

Case Xass2opt = 7
    Nassess = "Inability to Speak"
    Do B:Relate_2
    Return

Case Xass2opt = 8
    Nassess = "Incomprehensible Speech"
    Do B:Relate_2
    Return

Case Xass2opt = 9
    Nassess = "Refusal to Speak"
    Do B:Relate_2
    Return

Case Xass2opt = 10
    Nassess = "Slurring"
    Do B:Relate_2
    Return

Case Xass2opt = 11
    Nassess = "Stuttering"
    Do B:Relate_2
    Return

Case Xass2opt = 12
    Nassess = "Tearfulness"
Do B:Relate_2
Return

Case Xass2opt = 13
   Nassign = "Thought Disorder"
   Do B:Relate_2
   Return
Endcase
Release Xass2opt

Enddo
***** RELATE_2.PRG ****************************

- Author: Gary R. Harmeyer LCOR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company
  Of New York, c1985
- Purpose: Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of communication, impaired: verbal.
- Input Files Used: Relate_2.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: Assess_2.Prg
- Routine Called: Goal_2.Prg
- Modification Date: 3 February 1986

-- Screen Input Program For Relate_2 --

Do Setup
Public Xrel2opt

Do While .T.

- -- Screen Display A:Relate_2.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Relate_2.Scr/"
Set Color To W+/B,W+/B
Xrel2opt = 01
Do Headings
@ 22,67 Get Xrel2opt Pict "99" Range 1,10
Read

- -- Previous assessment is related to some cause --

Do Case

Case Xrel2opt = 1
  Nrelate = "Anatomical Impairment"
  Do B:Goal_2
  Return

Case Xrel2opt = 2
  Nrelate = "Cultural Difference"
  Do B:Goal_2
  Return

Case Xrel2opt = 3
  Nrelate = "Developmental Age"
Do B:Goal_2
Return

Case Xrel2opt = 4
  Nrelate = "Disease Process"
  Do B:Goal_2
  Return

Case Xrel2opt = 5
  @ 17,14 Get Reloth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_2
  Return

Case Xrel2opt = 6
  Nrelate = "Foreign Language"
  Do B:Goal_2
  Return

Case Xrel2opt = 7
  Nrelate = "Mental Capacity"
  Do B:Goal_2
  Return

Case Xrel2opt = 8
  Nrelate = "Sedation"
  Do B:Goal_2
  Return

Case Xrel2opt = 9
  Nrelate = "Surgical Procedure"
  Do B:Goal_2
  Return

Case Xrel2opt = 10
  Nrelate = "Treatment Regime"
  Do B:Goal_2
  Return

Endcase
Release Xrel2opt

Enddo
GOAL_2.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of communication, impaired: verbal.
- Input Files Used: Goal_2.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: Relate_2.Prg
- Routine Called: Norder2A, Norder2B or Norder2C.Prg
- Modification Date: 3 February 1986

--- Screen Input Program For Goal_2 ---

Do Setup
Public Xgoa2opt

Do While .T.

--- Screen Display A:Goal_2.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Goal_2.Scr/"
Set Color To W+/B,W+/B
Xgoa2opt = 1
Do Headings
@ 22,67 Get Xgoa2opt Pict "9" Range 1,7
Read

--- Allows nurse to select specific goal attainable by this patient ---

Do Case

Case Xgoa2opt = 1
Ngoal = "Communicates Needs Through Words"
Do B:Norder2A
Return

Case Xgoa2opt = 2
Ngoal = "Comm Needs Through Mechanical Tools"
Do B:Norder2A
Return
Case Xgoa2opt = 3
  Ngoal = "Demos Skills to Achieve Goals"
  Do B:Norder2C
  Return

Case Xgoa2opt = 4
  @ 18,21 Get Goooth;
  Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Ngoal = Goooth
  Do B:Norder2A
  Return

Case Xgoa2opt = 5
  Ngoal = "Reports Less Anxiety"
  Do B:Norder2B
  Return

Case Xgoa2opt = 6
  Ngoal = "Reports Less Fear"
  Do B:Norder2B
  Return

Case Xgoa2opt = 7
  Ngoal = "Reports Less Stress"
  Do B:Norder2B
  Return

Endcase
Release Xgoa2opt

Enddo
Do Setup
Public Xnord2aopt

Do While .T.

\* -- Screen Display A:Norder2A.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder2A.Scr/"
Set Color To W+/B,W+/B
Xnord2aopt = 01
Do Headings
@ 22,67 Get Xnord2aopt Pict "99" Range 1,10
Read

\* -- Nursing orders are determined by evaluating the
\* -- case statement, then place data into Ncaredb and
\* -- Orders.Dbf files --

Do Case

Case Xnord2aopt = 1
    Order = "Apprise Others of Comm Prob"
    Do B:Time
    Do Replord
    Do Reprord
    Return
Case Xnord2aopt = 2
Morder = "Provide Emotional Support"
Do B:Emosup
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 3
Morder = "Provide Paper and Pencil"
Do B:Time
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 4
Morder = "Provide Spelling Board"
Do B:Time
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 5
@ 10,11 Get Ortho;
   Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ortho
Do B:Time
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 6
Morder = "Provide Translated Phase Chart"
Do B:Time
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 7
Morder = "Provide Translator"
Do B:Time
Do Reploard
Do Repnrord
Return

Case Xnord2aopt = 8
Morder = "Simple Questions w/ Y/N Ans"
Do B:Time
Do Reploard
Do Repnrex
Return

Case Xnord2aopt = 9
  Morder = "Use Sign Language"
  Do B:Time
  Do Repnrex
  Do Repnrex
  Return

Case Xnord2aopt = 10
  Morder = "Use Established Comm for ADL"
  Do Repnrex
  Do Repnrex
  Return

Endcase
Release Xnord2aopt

Enddo
**NORDER2B.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is reports decreased level of stress, anxiety or fear.
- **Input Files Used:** Norder2B.Scr, Time and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.Dbf
- **Calling Routine:** Goal_2.Prg
- **Routine Called:** None
- **Modification Date:** 5 February 1986

---

Do Setup
Public Xnord2bopt

Do While .T.

* -- Screen Display A:Norder2B.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash"S.A:Norder2B.Scr/"
Set Color To W+/B,W+/B
Xnord2bopt = O1
Do Headings
@ 22,66 Get Xnord2bopt Pict "99" Range 1,10
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files -- *

Do Case

Case Xnord2bopt = 1
Morder = "Encour Pt To Speak Slowly"
Do B:Time
Do Replaard
Do Repnrord
Return

Case Xnord2bopt = 2
Morder = "Encou To Util Cope Strategy"
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 3
Morder = "Explain Proc & Elicit Ques"
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 4
Morder = "Provide Spelling Board"
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 5
@ 18:10 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ordoth
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 6
Morder = "Prov Translated Phase Chart"
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 7
Morder = "Provide Translator"
Do B: Time
Do Reploord
Do Repnord
Return

Case Xnord2bopt = 8
Morder = "Simple Questions w/ Y/N Ans"
Do B: Time
Do Reploord
Do Repnord
Return
Case Xnord2bopt = 9
  Morder = "Use Sign Language"
  Do B:Time
  Do Repload
  Do Repnord
  Return

Case Xnord2bopt = 10
  Morder = "Use Established Comm for ADL"
  Do Repload
  Do Repnord
  Return

Endcase
Release Xnord2bopt

Enddo
--- NORDER2C.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is demonstrates skills to achieve goals.
* Input Files Used: Norder2C.Scr, Teach & Procfile.Prg
* Output Files Used: Orders and Ncaredb.DbF
* Calling Routine: Goal_2.Prg
* Routine Called: None
* Modification Date: 1 February 1986

--- Screen Input Program For Norder2C ---

Do Setup
Public Xnord2copt

Do While .T.

  -- Screen Display A:Norder2C.Scr --

  Set Color To W+/B, W+/B
  Clear
  ?? Flash+"S.A:Norder2C.Scr/"
  Set Color To W+/B, W+/B
  Xnord2copt = 1
  Do Headings
    @ 22,67 Get Xnord2copt Pict "9" Range 1,9
    Read

  -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders Dbf files --

  Do Case

    Case Xnord2copt = 1
      Order = "Teach: Blink 1x No, 2x Yes"
      Do B:Teach
      Do Repload
      Do Repnload
      Return

    Case Xnord2copt = 2
      Order = "Teach To Squeeze Hand 4 Y/N"
      Do B:Teach
Case Xnord2copt = 3
  Morder = "Teach Use Of Mech Device"
  Do B:Teach
  Do Repload
  Do Repnload
  Return

Case Xnord2copt = 4
  Morder = "Apprise Others of Comm Prob"
  Do B:Time
  Do Repload
  Do Repnload
  Return

Case Xnord2copt = 5
  @ 18.30 Get Ordoth;
  Read "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read Morder = Ordoth
  Do B:Teach
  Do Repload
  Do Repnload
  Return

Case Xnord2copt = 6
  Morder = "Teach: Deep Breathing Exer"
  Do B:Teach
  Do Repload
  Do Repnload
  Return

Case Xnord2copt = 7
  Morder = "Teach: Diversional Activity"
  Do B:Teach
  Do Repload
  Do Repnload
  Return

Case Xnord2copt = 8
  Morder = "Teach: Prog/sive Relaxation"
  Do B:Teach
  Do Repload
  Do Repnload
  Return
Case Xnord2copt = 9
  Morder = "Teach: Relaxation Response"
  Do B:Time
  Do Repload
  Do Repnload
  Return

Endcase
Release Xnord2copt

Enddo
ASSESS_3.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Provides a menu for the nurse to select nursing assessment for a patient with a nursing diagnosis of impaired physical mobility.
Output Files Used: None
Calling Routine: N_Diag.Prg
Routine Called: Relate_3.Prg
Modification Date: 3 February 1986

-- Screen Input Program For Assess_3 --

Do Setup
Public Xass3opt

Do While .T.

-- Screen Display A:Assess_3.Scr --
Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Assess_3.Scr/"
Set Color To W+/B,W+/B
Xass3opt = 01
Do Headings
@ 22,66 Get Xass3opt Pict "99" Range 1,11
Read

-- Allows nurse to document assessment of the patient --

Do Case

Case Xass3opt = 1
Nassess = "Confinement Imposed"
Do B:Relate_3
Return

Case Xass3opt = 2
Nassess = "Fatigues Easily"
Do B:Relate_3
Return
Case Xass3opt = 3
    Nassess = "Gait Impairment"
    Do B:Relate_3
    Return

Case Xass3opt = 4
    Nassess = "Impaired Coordination"
    Do B:Relate_3
    Return

Case Xass3opt = 5
    Nassess = "Inability to Ambulate"
    Do B:Relate_3
    Return

Case Xass3opt = 6
    @ 18,13 Get Assoth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Nassess = Assoth
    Do B:Relate_3
    Return

Case Xass3opt = 7
    Nassess = "Inability to Transfer"
    Do B:Relate_3
    Return

Case Xass3opt = 8
    Nassess = "Inability to Turn"
    Do B:Relate_3
    Return

Case Xass3opt = 9
    Nassess = "Limited Range Of Motion"
    Do B:Relate_3
    Return

Case Xass3opt = 10
    Nassess = "Reluctant To Move"
    Do B:Relate_3
    Return

Case Xass3opt = 11
    Nassess = "Use Of Assistive Devices"
    Do B:Relate_3
    Return

Endcase
Release Xass3opt
**RELATE_3.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of impaired physical mobility.
- **Input Files Used:** Relate_3.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Assess_3.Prg
- **Routine Called:** Goal_3.Prg
- **Modification Date:** 3 February 1986

-- Screen Input Program For Relate_3 --

Do Setup
Public Xrel3opt

Do While .T.

  -- Screen Display A:Relate_3.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Relate_3.Scr/"
  Set Color To W+/B,W+/B
  Xrel3opt = 01
  Do Headings
  @ 22,67 Get Xrel3opt Pict "9" Range 1,6
  Read

  -- Previous assessment is related to some cause --

  Do Case

  Case Xrel3opt = 1
    Nrelate = "Decrease Act Tolerance"
    Do B:Goal_3
    Return

  Case Xrel3opt = 2
    Nrelate = "Musculoskeletal Function"
    Do B:Goal_3
    Return

  Case Xrel3opt = 3
    Nrelate = "Neuromuscular Function"
Do B:Goal_3
Return

Case Xrel3opt = 4
    Nrelate = "Pain / Discomfort"
    Do B:Goal_3
    Return

Case Xrel3opt = 5
    Nrelate = "Treatment Regime"
    Do B:Goal_3
    Return

Case Xrel3opt = 6
    @ 18,36 Get Reloth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Nrelate = Reloth
    Do B:Goal_3
    Return

Endcase
Release Xrel3opt

Enddo
*Author:* Gary R. Harmeyer LCDR NC USN
*Date:* 23 December 1985
*Screen Generated By:* The Software Bottling Company Of New York, c1985
*Purpose:* Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of impaired physical mobility.
*Input Files Used:* Goal_3.Scr and Drproc.Prg
*Output Files Used:* None
*Calling Routine:* Relate_3.Prg
*Routine Called:* Norder3A, Norder3B, Norder3C, Norder3D or Norder3E.Prg
*Modification Date:* 3 February 1986

* -- Screen Input Program For Goal_3 -- *

Do Setup
Public Xgoa3opt

Do While .T.

* -- Screen Display A:Goal_3.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Goal_3.Scr/
Set Color To W+/B,W+/B
Xgoa3opt = 01
Do Headings
@ 22,66 Get Xgoa3opt Pict "99" Range 1,11
Read

* -- Allows nurse to select specific goal attainable by this patient -- *

Do Case

Case Xgoa3opt = 1
Ngoal = "Able To Transfer Independently"
Do B:Norder3D
Return

Case Xgoa3opt = 2
Ngoal = "Able To Transfer With Assistance"
Do B:Norder3D
Return
Case Xgoa3opt = 3
Ngoal = "Demos Skills to Achieve Goals"
Do B:Norder3E
Return

Case Xgoa3opt = 4
Ngoal = "Increase Range Of Motion (ROM)"
Do B:Norder3A
Return

Case Xgoa3opt = 5
Ngoal = "Maint Effective Breathing Pattern"
Do B:Norder3A
Return

Case Xgoa3opt = 6
@ 18,21 Get Goaoth;
   Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Ngoal = Goaoth
Do B:Norder3B
Return

Case Xgoa3opt = 7
Ngoal = "Maintains Full Range Of Motion (ROM)"
Do B:Norder3A
Return

Case Xgoa3opt = 8
Ngoal = "Maintains Pattern Of Elimination"
Do B:Norder3C
Return

Case Xgoa3opt = 9
Ngoal = "Maintains Skin Integrity"
Do B:Norder3B
Return

Case Xgoa3opt = 10
Ngoal = "No Additional Contractures"
Do B:Norder3A
Return

Case Xgoa3opt = 11
Ngoal = "Performs Activity Of Daily Living(ADL)"
Do B:Norder3C
Return

Endcase
Release Xgoa3opt
NORDER3A.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains maintains full range of motion (ROM), increases ROM or no added contractures.
Input Files Used: Norder3A.Scr, Time and Drproc.Prg
Output Files Used: Orders and Ncaredb.DbF
Calling Routine: Goal_3.Prg
Routine Called: None
Modification Date: 5 February 1986

-- Screen Input Program For Norder3A --

Do Setup
Public Xnord3aopt

Do While .T.

-- Screen Display A:Norder3A.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder3A.Scr/"
Set Color To W+/B,W+/B
Xnord3aopt = 1
Do Headings
@ 22,66 Get Xnord3aopt Pict "9" Range 1,10
Read

-- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.DbF files --

Do Case

Case Xnord3aopt = 1
  Order = "Active Range Of Motion"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return
Case Xnord3aopt = 2
  Morder = "Cough & Deep Breath"
  Do B:Time
  Do Cough
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 3
  Morder = "Encourage Independent ADL"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 4
  Morder = "Gradual Increase ADL Activity"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 5
@ 18.10 Get Ordoth;
  Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 6
  Morder = "Passive Range Of Motion"
  Do B:Time
  Do Range
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 7
  Morder = "Positioning"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 8
  Morder = "Turning"
  Do B:Time
Do Replaord
Do Reprnord
Return

Case Xnord3aopt = 9
  Morder = "Accom Pt Off Wd (>15 <30mn)"
  Passdata = "QSS 2"
  Ptpoint = 2
  Do Replaord
  Do Reprnord
  Return

Case Xnord3aopt = 10
  Morder = "Accompy Pt Off Wd (>30 min)"
  Passdata = "QSS 3"
  Ptpoint = 4
  Do Replaord
  Do Reprnord
  Return

Endcase
Release Xnord3aopt

Enddo
Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Buttling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains skin integrity or selects other for the goal.
Input Files Used: Norder3B.Scr, Time and Procfile.Prg
Output Files Used: Orders and Ncoredb.Dbf
Calling Routine: Goal_3.Prg
Routine Called: None
Modification Date: 3 February 1986

-- Screen Input Program For Norder3B --
Do Setup
Public Xnord3bopt
Do While .T.

* -- Screen Display A:Norder3B.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder3B.Scr/"
Set Color To W+/B,W+/B
Xnord3bopt = 01
Do Headings
@ 22,66 Get Xnord3bopt Pict "99" Range 1,11
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncoredb and Orders.Db files --

Do Case

Case Xnord3bopt = 1
    Morder = "Ambulate"
    Do B:Time
    Do Reploord
    Do Repnrord
    Return

Case Xnord3bopt = 2
    Morder = "Assist To Select Diet"

317
Do B:Time
Do Replaord
Do Repnroard
Return

Case Xnord3bopt = 3
  Morder = "Encourage Independent AOL"
  Do B:Time
  Do Replaord
  Do Repnroard
  Return

Case Xnord3bopt = 4
  Morder = "Massage-Promote Circulation"
  Do B:Time
  Do Replaord
  Do Repnroard
  Return

Case Xnord3bopt = 5
  Morder = "Possessions w/in Reach"
  Do Replaord
  Do Repnroard
  Return

Case Xnord3bopt = 6
  @ 18,30 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnroard
  Return

Case Xnord3bopt = 7
  Morder = "Position"
  Do B:Time
  Do Replaord
  Do Repnroard
  Return

Case Xnord3bopt = 8
  Morder = "Protect Bony Prominences"
  Do B:Time
  Do Replaord
  Do Repnroard
  Return
Case Xnord3bopt = 9
  Morder = "Protect Pressure Areas"
  Do B:Time
  Do Reploord
  Do Repnrord
  Return

Case Xnord3bopt = 10
  Morder = "Provide Safe Environment"
  Do B:Time
  Do Reploord
  Do Repnrord
  Return

Case Xnord3bopt = 11
  Morder = "Siderails"
  Do B:Time
  Do Reploord
  Do Repnrord
  Return

Endcase
Release Xnord3bopt

Enddo
--- NORDER3C.PRG ---

**Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains pattern of elimination or performs activities of daily living (ADL).

**Input Files Used:** Norder3C.Scr, Time and Procfile.Prg

**Output Files Used:** Orders and Ncaredb.DbF

**Calling Routine:** Goal_3.Prg

**Routine Called:** None

**Modification Date:** February 1986

--- Screen Input Program For Norder3C ---

Do Setup

Public Xnord3copt

Do While .T.

* -- Screen Display A:Norder3C.Scr --

Set Color To W+/B,W+/B
Clear
??? Flash+"S.A:Norder3C.Scr/"
Set Color To W+/B,W+/B
Xnord3copt = 1
Do Headings
@ 22,67 Get Xnord3copt Pict "9" Range 1,8
Read

* -- Nursing orders are determined by evaluating the
* -- case statement, then place data into Ncaredb and
* -- Orders.DbF files --

Do Case

Case Xnord3copt = 1
Morder = "Ambulate with Assistance"
Do B:Time

Do Case

Case [Timeopt < 5 .Or. Timeopt = 41]
* -- No precise frequency given
Passdata = "Q51 18"

--- End --
Ptpoint = 0
Case (Timeopt > 4 .And. Timeopt < 22)
  * -- X 1
  Passdata = "051 11"
  Ptpoint = 2
Case (Timeopt > 21 .And. Timeopt < 25)
  * -- X 2 or BID
  Passdata = "051 12"
  Ptpoint = 4
Case (Timeopt > 24 .And. Timeopt < 31)
  * -- X 3 or TID
  Passdata = "051 13"
  Ptpoint = 6
Case (Timeopt > 30 .And. Timeopt < 34)
  * -- X 4 or QID
  Passdata = "051 14"
  Ptpoint = 8
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- X 6 or Q4h
  Passdata = "051 15"
  Ptpoint = 12
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- X 12 or Q2h
  Passdata = "051 16"
  Ptpoint = 24
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- X 24 or Q1h
  Passdata = "051 17"
  Ptpoint = 48
Endcase
Do Replaord
Do Repnrord
Return
Case Xnord3c0pt = 2
  Morder = "Increase Independ Doing ADL"
  Do Replaord
  Do Repnrord
  Return
Case Xnord3c0pt = 3
  Morder = "Plan For Continuing Care"
  Do Replaord
  Do Repnrord
  Return
Case Xnord3c0pt = 4
  Morder = "Position"
  Do B:Time
Do Replaord
Do Repnrobd
Return

Case Xndrd3cotp = 5
  @18,29 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrobd
  Return

Case Xndrd3cotp = 6
  Morder = "Range Of Motion [ROM]"
  Do B:Time
  Do Replaord
  Do Repnrobd
  Return

Case Xndrd3cotp = 7
  Morder = "Diet To Promote GI Function"
  Do Replaord
  Do Repnrobd
  Return

Case Xndrd3cotp = 8
  Morder = "Turn"
  Do B:Time
  Do Replaord
  Do Repnrobd
  Return

Endcase
Release Xndrd3cotp

Enddo
NORDER3D.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is able to transfer independently or with assistance.
- Input Files Used: Norder3D.Scr, Time and Procfile.Prg
- Output Files Used: Orders and Ncaredb.Dbf
- Calling Routine: Goal_3.Prg
- Routine Called: None
- Modification Date: 4 February 1986

-- Screen Input Program For Norder3D --

Do Setup
Public Xnord3dopt

Do While .T.

- -- Screen Display A:Norder3D.Scr --

Set Color To w+/B,w+/B
Clear
?? Flash+"S. Order3D.Scr/
Set Color To w*/B,w+/B
Xnord3dopt = 1
Do Headings
@ 22.67 Get Xnord3dopt Pict "9" Range 1,5
Read

- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files --

Do Case

Case Xnord3dopt = 1
Morder = "Assist Bed To Chair"
Do B:Time

Do Case
Case (Timeopt < 25 .Or. Timeopt = 41)
- Less than x 3 or TID
Passdata = "Q51 1"
Ptpoint = 0
Case (Timeopt > 24 .And. Timeopt < 34)
* -- X 3 or less than Q4h (x 6)
Passdata = "Q51 7"
Ptpoint = 2
Case (Timeopt = 34 .Or. Timeopt = 35)
* -- X 6 or Q4h
Passdata = "Q51 8"
Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- X 12 or Q2h
Passdata = "Q51 9"
Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- X 24 or Q1h
Passdata = "Q51 10"
Ptpoint = 16
Endcase

Do Reploord
Do Repnoord
Return

Case Xnord3dopt = 2
Morder = "Assist Bed To Wheelchair"
Do 8:Time

Do Case
Case (Timeopt < 25 .Or. Timeopt = 41)
* -- Less than x 3 or TID
Passdata = "Q51 1"
Ptpoint = 0
Case (Timeopt > 24 .And. Timeopt < 34)
* -- X 3 or less than Q4h (x 6)
Passdata = "Q51 7"
Ptpoint = 2
Case (Timeopt = 34 .Or. Timeopt = 35)
* -- X 6 or Q4h
Passdata = "Q51 8"
Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- X 12 or Q2h
Passdata = "Q51 9"
Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- X 24 or Q1h
Passdata = "Q51 10"
Ptpoint = 16
Endcase
Do Repeat
Do Repeat
Return

Case Xnord3dopt = 3
  @ 18.29 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do Repeat
  Do Repeat
  Return

Case Xnord3dopt = 4
  Morder = "Provide Helping Person"
  Do B:Time
  Do Repeat
  Do Repeat
  Return

Case Xnord3dopt = 5
  Morder = "Provide Mechanical Aid"
  Do B:Time
  Do Repeat
  Do Repeat
  Return

Endcase
Release Xnord3dopt

Enddo
--- NORDER3E.PRG ---

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
  - Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is demonstrates skills to achieve goals.
- **Input Files Used:** Norder3E.Scr, Time, Teach and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.Dbf
- **Calling Routine:** Goal_3.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

--- Screen Input Program For Norder3E ---

Do Setup
Public Xnord3eopt

Do While .T.

  * -- Screen Display A:Norder3E.Scr --

  Set Color To $+/B,$+/B
  Clear
  ?? Flash"S.A:Norder3E.Scr/"
  Set Color To $+/B,$+/B
  Xnord3eopt = 1
  Do Headings
  @ 22,67 Get Xnord3eopt Pict "$" Range 1,6
  Read

  * -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files --

  Do Case

  Case Xnord3eopt = 1
    Morder = "Provide Oppot To Prac Skil"
    Do B:Time
    Do Reploord
    Do Repnord
    Return

  Case Xnord3eopt = 2
    Morder = "Teach Factor-Impair Mobilty"
Do B:Teach
Do Replaord
Do Repnord
Return

Case Xnord3eopt = 3
  Morder = "Teach Rationale For Skills"
  Do B:Teach
  Do Replaord
  Do Repnord
  Return

Case Xnord3eopt = 4
  @ 18,29 Get Ordoth;
      Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnord
  Return

Case Xnord3eopt = 5
  Morder = "Teach Required Exercise"
  Do B:Teach
  Do Replaord
  Do Repnord
  Return

Case Xnord3eopt = 6
  Morder = "Teach Use Of Adjuncts/Aids"
  Do Replaord
  Do Repnord
  Return

Endcase
Release Xnord3eopt

Enddo
ASSESS_4.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company Of New York, c1985
- Purpose: Provides a menu for the nurse to select nursing assessment for a patient with a nursing diagnosis of self-care deficit.
- Input Files Used: Assess_4.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: N_Diag.Prg
- Routine Called: Relate_4.Prg
- Modification Date: 3 February 1986

Do Setup
Public Xass4opt

Do While .T.

- -- Screen Display A:Assess_4.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Assess_4.Scr/"
  Set Color To W+/B,W+/B
  Xass4opt = 01
  Do Headings
  @ 22,66 Get Xass4opt Pict "99" Range 1,14
  Read

  * -- Allows nurse to document assessment of the
  * -- patient --

  Do Case

  Case Xass4opt = 1
  Nossess = "Unable To Cloth Self"
  Do B:Relate_4
  Return

  Case Xass4opt = 2
  Nossess = "Unable To Cut Food"
  Do B:Relate_4
  Return

328
Case Xass4opt = 3
Nassess = "Unable To Drink"
Do B:Relate_4
Return

Case Xass4opt = 4
Nassess = "Unable To Fasten Clothes"
Do B:Relate_4
Return

Case Xass4opt = 5
Nassess = "Unable To Feed Self"
Do B:Relate_4
Return

Case Xass4opt = 6
@ 18,24 Get Assoth;
   Pict "XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Nassess = Assoth
Do B:Relate_4
Return

Case Xass4opt = 7
Nassess = "Unable To Get To Bathroom"
Do B:Relate_4
Return

Case Xass4opt = 8
Nassess = "Unable To Maint Appearance"
Do B:Relate_4
Return

Case Xass4opt = 9
Nassess = "Unable To Select Clothes"
Do B:Relate_4
Return

Case Xass4opt = 10
Nassess = "Unable To Sit On Toilet"
Do B:Relate_4
Return

Case Xass4opt = 11
Nassess = "Unable To Do Toilet Hygiene"
Do B:Relate_4
Return

Case Xass4opt = 12
Nassess = "Unable To Rise Off Toilet"
Do B:Relate_4
Return

Case Xass4opt = 13
Nassess = "Unable To Do Flush Toilet"
Do B:Relate_4
Return

Case Xass4opt = 14
Nassess = "Unable To Wash Self"
Do B:Relate_4
Return

Endcase
Release Xass4opt

Enddo
--- RELATE_4.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of self care: deficit.
* Input Files Used: Relate_4.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Assess_4.Prg
* Routine Called: Goal_4.Prg
* Modification Date: 3 February 1986

Do Setup
Public Xrel4opt

Do While .T.

  * -- Screen Display A:Relate_4.Scr --

  Set Color To W+/B,W+/B
  Clear "...
  ?? Flash"S.A:Relate_4.Scr/"
  Set Color To W+/B,W+/B
  Xrel4opt = 01
  Do Headings
  @ 22,66 Get Xrel4opt Pict "99" Range 1,10
  Read

  * -- Previous assessment is related to some cause --

  Do Case

  Case Xrel4opt = 1
    Nrelate = "Activity Intolerance"
    Do B:Goal_4
    Return

  Case Xrel4opt = 2
    Nrelate = "Depression"
    Do B:Goal_4
    Return

  Case Xrel4opt = 3
    Nrelate = "Developmental Phase"

331
Do B:Goal_4
Return

Case Xrel4opt = 4
  Nrelate = "Musculoskeletal Function"
  Do B:Goal_4
  Return

Case Xrel4opt = 5
  @ 17,14 Get Reloth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_4
  Return

Case Xrel4opt = 6
  Nrelate = "Neuromuscular Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 7
  Nrelate = "Pain / Discomfort"
  Do B:Goal_4
  Return

Case Xrel4opt = 8
  Nrelate = "Perceptual Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 9
  Nrelate = "Sensory Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 10
  Nrelate = "Severe Anxiety"
  Do B:Goal_4
  Return

Endcase
Release Xrel4opt

Enddo
**GOAL_4.PRG**

*Author:* Gary R. Harmeyer LCDR NC USN  
*Date:* 23 December 1985  
*Screen Generated By:* The Software Bottling Company  
*Date of New York, c1985  
*Purpose:* Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of self-care: deficit.

*Input Files Used:* Goal_4.Scr and Procfile.Prg  
*Output Files Used:* None  
*Calling Routine:* Relate_4.Prg  
*Routine Called:* Norder4A, Norder4B, Norder4C, Norder4D or Norder4E.Prg  
*Modification Date:* 25 January 1986

--- Screen Input Program For Goal_4 --

**Do Setup**

Public Xgoal4opt,Xgoal4cur

Xgoal4cur = Space(1)

Do While .T.

* -- Screen Display A:Goal_4.Scr --

Set Color To W+/B,W+/B
Clear ?? Flash"S, A:Goal_4.Scr/"
Set Color To W+/B,W+/B
Xgoal4opt = 1
Do Headings @ 21,67 Get Xgoal4opt Pict "9" Range 1,5
Read

* -- Allows nurse to select specific goal attainable by this patient and current level of care the patient requires --

Do Case

Case Xgoal4opt = 1
  Ngoal = "Func @ Level 0, Full Self Care"
  Do Current
  Do Reload
  Do B: Norder4A
  Return
Case Xgoal = 2
  Ngoal = "Func @ Level 1, Use Of Equip/Device"
  Do Current
  Do Replaoord
  Do B:Norder4B
  Return

Case Xgoal = 3
  Ngoal = "Func @ Level 2, Needs Assist/Supervis"
  Do Current
  Do Replaoord
  Do B:Norder4C
  Return

Case Xgoal = 4
  Ngoal = "Func @ Level 3 Needs Assist/Use Device"
  Do Current
  Do Replaoord
  Do B:Norder4D
  Return

Case Xgoal = 5
  Ngoal = "Func @ Level 4 Dependent/No Participtn"
  Do Current
  Do Replaoord
  Do B:Norder4E
  Return

Endcase
Release Xgoal,Xgoal4cur
Enddo
**NORDER4A.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 0: full self care.
- **Input Files Used:** Norder4A.Scr, Time and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.DbF
- **Calling Routine:** Goal_4.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

---

**-- Screen Input Program For Norder4A --**

Do Setup
Public Xnord4aopt

Do While .T.

* -- Screen Display A:Norder4A.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4A.Scr/"
Set Color To W+/B,W+/B
Xnord4aopt = 1
Do Headings
@ 22,67 Get Xnord4aopt Pict "9" Range 1,3
Read

* -- Nursing orders are determined by evaluating the
case statement, then place data into Ncaredb and
-- Orders.DbF files -- *

Do Case

Case Xnord4aopt = 1
Morder = "Supprt Increse Indep In ADL"
Do Replaord
Do Repnrord
Return

Case Xnord4aopt = 2
Morder = "Peds Recreation/Observation"
Passdata = "026 1"
Ptpoint = 8

335
Do Replaord
Do Repnord
Return

Case Xnord4aopt = 3
@ 17.42 Get Ordoth;
   Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ordoth
Do B:Time
Do Replaord
Do Repnord
Return

Endcase
Release Xnord4aopt

Enddo
NORDER4B.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to
select a nursing order for a
patient whose goal is functions
at level 1: needs equipment or
device.
Input Files Used: Norder4B.Scr, Time and Procfile.Prg
Output Files Used: Orders and Ncaredb.DbF
Calling Routine: Goal_4.Prg
Routine Called: None
Modification Date: 3 February 1986

-- Screen Input Program For Norder4B --

Do Setup
Public Xnord4bopt

Do While .T.

* -- Screen Display A:Norder4B.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4B.Scr/"
Set Color To W+/B,W+/B
Xnord4bopt = 1
Do Headings
@ 22,67 Get Xnord4bopt Pict "9" Range 1,8
Read

* -- Nursing orders are determined by evaluating the
* -- case statement, then place data into Ncaredb and
* -- Orders.DbF files --

Do Case

Case Xnord4bopt = 1
   Morder = "Provide Equip For Bathing"
   Do B:Time
   Do Reploord
   Do Repnrord
   Return

Case Xnord4bopt = 2
   Morder = "Provide Equip For Dressing"
Do B:Time
Do Replaard
Do Repnroard
Return

Case Xnord4bopt = 3
  Morder = "Provide Equip For Feeding"
  Do B:Time
  Do Replaard
  Do Repnroard
  Return

Case Xnord4bopt = 4
  G 18,11 Get Ordoth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Morder = Ordoth
  Do B:Time
  Do Replaard
  Do Repnroard
  Return

Case Xnord4bopt = 5
  Morder = "Provide Equip For Toileting"
  Do B:Time
  Do Replaard
  Do Repnroard
  Return

Case Xnord4bopt = 6
  Morder = "Peds Recreation/Observation"
  Passdata = "Q26 1"
  Ptpoint = 8
  Do Replaard
  Do Repnroard
  Return

Case Xnord4bopt = 7
  Morder = "Spoon Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaard
  Do Repnroard
  Return

Case Xnord4bopt = 8
  Morder = "Spoon Feed Child"
  Passdata = "Q28 2"
  Ptpoint = 10
  Do Replaard
Do Repnxord
Return
Endcase
Release Xnord4bopo
Enddo
**NORDER4C.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 2: needs assistance, supervision or other.
- **Input Files Used:** Norder4C.Scr, Time, Emosup and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.Dbf
- **Calling Routine:** Goal4.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

Do Setup
Public Xnord4copt

Do While .T.

* -- Screen Display A:Norder4C.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4C.Scr/"
Set Color To W+/B,W+/B
Xnord4copt = 01
Do Headings
@ 22,66 Get Xnord4copt Pict "99" Range 1,16
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files -- *

Do Case

Case Xnord4copt = 1
    Morder = "Assist To Dress"
    Do B:Time
    Do Replaord
    Do Repnrord
    Return

340
Case Xnordcopt = 2
Morder = "Assist To/From Bathroom"
Do B:Time
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 3
Morder = "Assist With Partial Bath"
Do B:Time
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 4
Morder = "Assist To Comb/Brush Hair"
Do B:Time
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 5
Morder = "Dress Patient"
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 6
@ 18,12 Get Ordoth;
   Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ordoth
Do B:Time
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 7
Morder = "Feed Patient"
Passdata = "Q28 1"
Ptpoint = 6
Do Replaoard
Do Repnroid
Return

Case Xnordcopt = 8
Morder = "Give Emotional Support"
Do B:Emosup
Do Replaoard
Do Repnord
Return

Case Xnordicopt = 9
Morder = "Give Complete Bath"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnordicopt = 10
Morder = "Keep Commode @ Bedside"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnordicopt = 11
Morder = "Keep Urinal/Bedpan Near"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnordicopt = 12
Morder = "Peds Recreation/Observation"
Passdata = "Q26 1"
Ptpoint = 8
Do Repnord
Do Repnord
Return

Case Xnordicopt = 13
Morder = "Set Up Food Tray"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnordicopt = 14
Morder = "Shave Patient"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnordicopt = 15
Morder = "Socialize During Meals"
Do Repnord
Do Repnord
Return

Case Xnord4copt = 16
  Morder = "Spoon Feed Child"
  Passdata = "028 2"
  Ptpoint = 10
  Do Repnord
  Do Repnord
  Return
Endcase
Release Xnord4copt

Enddo
Do Setup
Public Xnord4dopt

Do While .T.

* -- Screen Display A:Norder4D.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+S.A:Norder4D.Scr/
Set Color To W+/B,W+/B
Xnord4dopt = 01
Do Headings
@ 22,66 Get Xnord4dopt Pict "99" Range 1,16
Read

* -- Nursing orders are determined by evaluating the
* -- case statement, then place data into Ncaredb and
* -- Orders.Dbf files --

Do Case

Case Xnord4dopt = 1
   Morder = "Assist To Dress"
   Do B:Time
   Do Replaord
   Do Repnrord
   Return
Case Xnord4dopt = 2
  Morder = "Assist To/From Bathroom"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 3
  Morder = "Assist With Partial Bath"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 4
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 5
  Morder = "Dress Patient"
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 6
  @ 18,12 Get Ordoth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
    Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 7
  Morder = "Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 8
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Replaord
Case Xnord4dopt = 9
  Morder = "Give Complete Bath"
  Do B:Time
  Do Repnrord
  Do Repnrord
  Return

Case Xnord4dopt = 10
  Morder = "Keep Commode @ Bedside"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 11
  Morder = "Keep Urinal/Bedpan Near"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 12
  Morder = "Provide Necessary Equipment"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 13
  Morder = "Provide For Hygiene"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 14
  Morder = "Set Up Food Tray"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Case Xnord4dopt = 15
  Morder = "Spoon Feed Child"
  Passdata = "Q2B 2"
  Ptpoint = 10
  Do Reploard

346
Do Repnrcd
Return

Case Xnord4dopt = 16
  Morder = "Peds Recreation/Observation"
  Passdata = "026 1"
  Ptpoint = 8
  Do Repnrcd
  Do Repnrcd
  Return

Endcase
Release Xnord4dopt

Enddo
NORDER4E.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 4: dependent and does not participate in care.
- Input Files Used: Norder4E.Scr, Time, Emosup and Procfile.Prg
- Output Files Used: Orders and Ncaredb.DbF
- Calling Routine: Goal_4.Prg
- Routine Called: None
- Modification Date: 3 February 1986

Do Setup
Public Xnord4eopt

Do While .T.

* -- Screen Display A:Norder4E.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4E.Scr/
Set Color To W+/B,W+/B
Xnord4eopt = 01
Do Headings
@ 22,66 Get Xnord4eopt Pict "99" Range 1,16
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.DbF files --

Do Case

Case Xnord4eopt = 1
  Morder = "Assist To/From Bathroom"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

348
Case Xnord4eopt = 2
  Morder = "Assist To/From Commode"
  Do B:Time
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 3
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 4
  Morder = "Dress Patient"
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 5
  Morder = "Feed Patient"
  Passdata = "020 1"
  Ptpoint = 6
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 6
  @ 18,12 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 7
  Morder = "Give Complete Bath"
  Do B:Time
  Do Replaord
  Do Repnord
  Return

Case Xnord4eopt = 8
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Replaord
Case Xnord4eopt = 9
  Morder = "Provide For Oral Hygiene"
  Do B:Time
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 10
  Morder = "Provide For Personal Hygiene"
  Do B:Time
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 11
  Morder = "Provide Urinal/Bedpan"
  Do B:Time
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 12
  Morder = "Spoon Feed Child"
  Passdata = "028 2"
  Ptpoint = 10
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 13
  Morder = "Other Activity (>15 <30min)"
  Passdata = "056 2"
  Ptpoint = 2
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 14
  Morder = "Other Activity (>30min)"
  Passdata = "056 3"
  Ptpoint = 4
  Do Repload
  Do Repnord
  Return

Case Xnord4eopt = 15
  Morder = "Special Procedure (>1 <2hr)"

350
Passdata = "QS6 4"
Ptpoint = 8
Do Repeat
  Do Repeat
    Do Repeat
      Case Xnord4eopt = 16
        Morder = "Xtra Linen Chge/Partial Bath"
      Do B:Time
        Do Case
          Case (Timeopt < 34 .Or. Timeopt = 41)
            * -- Less than x 6 per day
            Passdata = "Q24 1"
            Ptpoint = 0
          Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- x 2 per shift or x 6 per day
            Passdata = "Q24 2"
            Ptpoint = 4
          Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- x 4 per shift or x 12 per day
            Passdata = "Q24 3"
            Ptpoint = 8
          Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- x 8 per shift or x 24 per day
            Passdata = "Q24 4"
            Ptpoint = 16
        Endcase
      Do Repeat
      Do Repeat
    Enddo
Endcase
Release Xnord4eopt
Enddo
**INACTIVE.PRG**

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 8 January 1986
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: Displays the patient's nursing care plan and allows it to be modified by inactivating portions of it.
* Input Files Used: Inactive.Scr and Procfile.Prg
* Output Files Used: Ncaredb.DbF
* Calling Routine: Nurse1.Prg
* Routine Calls: None
* Modification Date: 4 February 1986

-- Screen Input Program For Inactive --

Do Setup
Public Xinaopt,Xidate,Xitime,Xinurse,Xnpack
Public Xiemo,Xifreq,XmptFmpssn,Xidiag,Xmord
Public Xigoal,XiasseS,Xirelate,Xiord
Xnpack = .F.

-- Identify correct patient and isolate the nursing care plan --

Use B:Ncaredb
Store "" + Ptfmpssn + "" To XmptFmpssn
Locate For Nfmpssn = &XmptFmpssn

Do While .T.

-- Store data from Dbf file into variable names --

Xidate = Ndate
Xitime = Ntime
Xinurse = Nurse
Xiemo = Emotea
Xifreq = NFreq
Xidiag = Ndiag
Xigoal = Goal
XiasseS = Assess
Xirelate = Relate
Xiord = Nord

-- Screen Display B:Inactive.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Inactive.Scr/"
Set Color To W+/B, W+/B
Do Headings
Xinaopt = 1
@ 13,1 Say Xitime
@ 13,9 Say Xidate
@ 13,18 Say Xidag
@ 13,46 Say Xiassess
@ 14,1 Say Xirelate
@ 14,27 Say Xigoal
@ 15,1 Say Xiorad
@ 15,28 Say Xifreq
@ 15,41 Say Xiemo
@ 15,61 Say Xinurse
@ 22,67 Get Xinaopt Pict "9" Range 0,4
Read
* -- Evaluate action based on the option selected --

Do Case

Case Xinaopt = 0
* -- Sign-Off
  If Xnpack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xinaopt = 1
* -- Next Plan
  Skip
  Do While (Nfmpssn # &Xmptfmpssn)
    If EOF()
      Nmenu = "1"
      @ 24,5 Say "No Additional Care Plans On This "
      @ 24,38 Say "Patient -- Press Any Key To "
      @ 24,68 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      If Xnpack = .T.
        Pack
      Endif
      Return
    Else
      Skip
    Endif
  Enddo

353
If EOF ()
    Nmenu ="1"
    @ 24,5 Say "No Additional Care Plans On This "
    @ 24,38 Say "Patient -- Press Any Key To "
    @ 24,66 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    If Xnpack = .T.
        Pack
    Endif
    Return
Else
    Loop
Endif

Case Xinaopt = 2
    * -- Inactivate Plan
    Xnpack = .T.
    Store "'" + Xiord + "'" To Xmord
    * -- Remove corresponding order from Orders.Dbf
    Use B:Orders
    Locate For [Fmpssn=&Xmpssn .And. Order=&Xmord] Delete
    Pack
    * -- Remove nursing care plan data from Ncaredb.Dbf
    Use B:Ncaredb
    Delete
    Skip
Do While (NFmpssn # &Xmptfmpssn) If EOF()
    Nmenu ="1"
    @ 24,5 Say "No Additional Care Plans On This "
    @ 24,38 Say "Patient -- Press Any Key To "
    @ 24,66 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
Else
    Skip
Endif
Enddo
If EOF ()
    Nmenu ="1"

354
@ 24,5 Say "No Additional Care Plans On This "
@ 24,38 Say "Patient -- Press Any Key To "
@ 24,66 Say "Continue"
Set Console Off
Wait
Set Console On
Pack
Return
Else
Loop
Endif

Case Xinopt = 3
  * -- Nurse Master
  If Xnpack = .T.
    Pack
  Endif
  Nmenu = "1"
  Return

Case Xinopt = 4
  * -- Master
  If Xnpack = .T.
    Pack
  Endif
  Nmenu = "" 
  Return

Endcase
Release Xinopt,Xidate,Xitime,Xinurse,Xnpack
Release Ximeo,Xifreq,Xmptfmpssn,Xidiag,Xmord
Release Xigoal,Xiasess,Xirelate,Xiord

Enddo
**** ADDELETE.PRG  

- Author: Gary R. Harmeyer LCDR NC USN  
- Date: 9 January 1986  
- Screen Generated By: The Software Bottling Company  
- Of New York, c1985  
- Purpose: Allows the data processing personnel to choose to add or delete a user.  
- Input Files Used: Addelete.Scr and Procfile.Prg  
- Output Files Used: None  
- Calling Routine: Moster.Prg  
- Routine Calls: Useinfo or Delete.Prg  
- Modification Date: 25 January 1986  

-- Screen Input Program For Addelete --

Do Setup
Public Xaddelopt

Do While .T.

* -- Screen Display B:Addelete.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash"S.B:Addelete.Scr/"
Set Color To W+/B,W+/B
Xaddelopt = 0
@ 22,67 Get Xaddelopt Pict "9" Range 0,2 Read

* -- Evaluate action based on the option selected --

Do Case

Case Xaddelopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xaddelopt = 1
  * -- Add A User
  Do B:Useinfo
  Loop

Case Xadmitopt = 2
  * -- Delete A User
Do B: Delete
  Loop

  Endcase
  Release Xaddelopt

Enddo
USEINFO.PRG

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 12 December 1985
* Screen Generated By: The Software Bottling Company, Of New York, c1985
* Purpose: Allow data processing personnel to add new user.
* Input Files Used: Useinfo.Scr and Procfile.Prg
* Output Files Used: Useinfo.Dbf
* Calling Routine: Addelete.Prg
* Routine Called: None
* Modification Date: 4 February 1986

-- Screen Input Program For Useinfo --

Do Setup
Public Xufinitial,Xuminitial,Xulname
Public Xrequestor,Xcodeword,Xaccess
Xufinitial = "."+Space(0)
Xuminitial = Space(3)
Xulname = Space(12)
Xrequestor = Space(3)
Xcodeword = Space(5)
Xaccess = 3

Do While .T.

-- Screen Display B:Useinfo.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Useinfo.Scr/"
Set Color To W+/B,W+/B
@ 9,43 Get Xufinitial Pict "."
@ 11,43 Get Xuminitial Pict "!!!"
@ 13,43 Get Xulname Pict "XXXXXXXXXXX"
@ 15,43 Get Xrequestor Pict "!!!"
@ 18,43 Get Xcodeword Pict "!!!!!"
@ 20,43 Get Xaccess Pict "9" Range 0,4
Read

Use B:Useinfo
Do While .Not. EDL()
    Skip
Enddo
Append Blank

-- Put data from variable names into Dbf file --
Replace UFinitial With Xufinitial
Replace Uminitial With Xuminitial
Replace Ulname With Xulname
Replace Requestor With Xrequestor
Replace Codeword With Xcodeword
Replace Access With Xaccess

Return
Release Xufinitial,Xuminitial,Xulname
Release Xrequestor,Xcodeword,Xaccess

Enddo
DELETE.PRG

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 9 January 1986
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Delete a user.
* Input Files Used: Delete.Scr and Procfile.Prg
* Output Files Used: Useinfo.Db
* Calling Routine: Addelete.Prg
* Routine Calls: None
* Modification Date: 4 February 1986

* -- Screen Input Program For Delete -- *

Do Setup
Public Xdelopt,Xdluname,Xdlufinit,Xdluminit
Public Xdlreq,Xdlacc,Xusepack
Xusepack = .F.

Do While .T.

* -- Store data from Dbf file into variable names -- *

Use B:Useinfo
Xdluname = Ulnome
Xdlufinit = UFinitial
Xdluminit = Uminitial
Xdlreq = Requestor
Xdlacc = Access

* -- Screen Display B:Delete.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Delete.Scr/
Set Color To W+/B,W+/B
Xdelopt = 1
@ 13,5 Say Xdluname
@ 13,19 Say Xdlufinit
@ 13,22 Say Xdluminit
@ 13,39 Say Xdlreq
@ 13,66 Say Xdlacc
@ 22,67 Get Xdelopt Pict "9" Range 0,3
Read

* -- Evaluate action based on the option selected -- *

Do Case
Case Xdischopt = 0
  * -- Sign-Off
  If Xusepack = .T.
  Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdischopt = 1
  * -- Next User
  Skip
  If EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    If Xusepack = .T.
      Pack
    Endif
    Return
  Else
  Loop
  Endif

Case Xdischopt = 2
  * -- Delete User
  Xusepack = .T.
  Delete
  Skip
  If EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
  Else
  Loop
  Endif

Case Xdischopt = 3
  * -- Return To Add/Delete Screen
  If Xusepack = .T.
    Pack
  Endif
Close Databases
Return

Endcase
Release Xdelopt, Xdlulname, Xdlufinit, Xdluminit
Release Xdlreq, Xdlacc, Xusepack

Enddo
APPENDIX P
PROGRAM SCREENS

PRESS ANY KEY TO BEGIN

Figure 1
*** Please Sign On By Entering Password ***

** Password:

---

Figure 1a

** Prototype Master Screen **

** Select the Desired Option **

1) Admission's Department
2) Doctor's Master
3) Nursing Master
4) System Administration
0) Sign-Off

Current User: Select one number (0-4) ->

---

Figure 2

364
**SELECT ADMIT / DISCHARGE OPTION***

1) Admit A Patient

2) Discharge A Patient

0) Sign-Off

Current User:  
Select one number (0-2) ----> *

Figure 3

---

**Patient Admission Form**

| Last Name: | Registration No: |
| First Name: | Medical Diagnosis: |
| Mid Initial: | Physician: |
| Rate/Rank: | Prognosis: |
| FMP-SSN: | Allergies: |
| Birthdate: / / | Nursing Ward: |
| Age: | Room Number: |
| Sex: | Bed: |
| Admit Date: / / | |

Figure 3.1

365
*** DISCHARGE A PATIENT ***

* FMP-SSN *  
* Patient Name *  
* Practitioner *  

0) Sign-off 1) Next Patient 2) Discharge Patient 3) Admit/Discharge Scr

Current User: Select one number (0-3) ----> *

Figure 3.2

** Nurse's Station Selection **  

Date Time

*** Select Nursing Unit to Display Patients ***

1) 2E Surgical Ward
2) 3E Medical Ward

0) Sign-Off 3) Master Screen

Current User: Select one number (0-3) ----> *

Figure 4
** Patient Selection **  Ward 2E Surgical Date Time

*** Select Patient ***

<table>
<thead>
<tr>
<th>RM BED</th>
<th>PATIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1 A</td>
<td></td>
</tr>
<tr>
<td>2) 1 B</td>
<td></td>
</tr>
<tr>
<td>3) 2 A</td>
<td></td>
</tr>
<tr>
<td>4) 2 B</td>
<td></td>
</tr>
<tr>
<td>5) 3 A</td>
<td></td>
</tr>
<tr>
<td>6) 3 B</td>
<td></td>
</tr>
</tbody>
</table>

0) Sign-Off  7) Master Screen

Current User: 

Select one number (0-7) ----> *

Figure 4.1a

---

** Patient Selection **  Ward 3E Medical Date Time

*** Select Patient ***

<table>
<thead>
<tr>
<th>RM BED</th>
<th>PATIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1 A</td>
<td></td>
</tr>
<tr>
<td>2) 1 B</td>
<td></td>
</tr>
<tr>
<td>3) 2 A</td>
<td></td>
</tr>
<tr>
<td>4) 2 B</td>
<td></td>
</tr>
<tr>
<td>5) 3 A</td>
<td></td>
</tr>
<tr>
<td>6) 3 B</td>
<td></td>
</tr>
</tbody>
</table>

0) Sign-Off  7) Master Screen

Current User: 

Select one number (0-7) ----> *

Figure 4.1b

---

367
Figure 4.1.1

Figure 4.1.1.1
### SELECT ACTIVITY LEVEL ###

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ambulate ad lib</td>
<td>7</td>
<td>Dangle Legs</td>
</tr>
<tr>
<td>2</td>
<td>Ambulate w/ Assistance</td>
<td>8</td>
<td>Keep on Back</td>
</tr>
<tr>
<td>3</td>
<td>Strict Bedrest</td>
<td>9</td>
<td>May Shower</td>
</tr>
<tr>
<td>4</td>
<td>Bedrest w/ BRP</td>
<td>10</td>
<td>Turn Patient</td>
</tr>
<tr>
<td>5</td>
<td>Bedside Commode</td>
<td>11</td>
<td>Turning Frame</td>
</tr>
<tr>
<td>6</td>
<td>OOB to Stretcher w/ Assist</td>
<td>12</td>
<td>Up in Chair w/ Assist</td>
</tr>
<tr>
<td>0</td>
<td>Sign-Off</td>
<td>13</td>
<td>Doctor's Order Screen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>Master Screen</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.1a**

### SELECT TIME/FREQUENCY OPTION ###

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRN</td>
<td>20</td>
<td>2200</td>
</tr>
<tr>
<td>2</td>
<td>Q 1-2 Hr PRN</td>
<td>21</td>
<td>2400</td>
</tr>
<tr>
<td>3</td>
<td>Q 2-3 Hr PRN</td>
<td>22</td>
<td>0600</td>
</tr>
<tr>
<td>4</td>
<td>Q 3-4 Hr PRN</td>
<td>23</td>
<td>0800</td>
</tr>
<tr>
<td>5</td>
<td>On Call</td>
<td>24</td>
<td>1000</td>
</tr>
<tr>
<td>6</td>
<td>QD</td>
<td>25</td>
<td>1200</td>
</tr>
<tr>
<td>7</td>
<td>HS</td>
<td>26</td>
<td>1400</td>
</tr>
<tr>
<td>8</td>
<td>x 1</td>
<td>27</td>
<td>1600</td>
</tr>
<tr>
<td>9</td>
<td>Today @</td>
<td>28</td>
<td>1800</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29</td>
<td>2000</td>
</tr>
</tbody>
</table>

40) Help 41) Return to Calling Screen

**Figure 4.1.1.1b**
HELP SCREEN FOR THE TIME MODULE

Hospital policy dictates the exact time for standardized abbreviations.

1-4) PRN

5-21) Single dosages
  QD -- 0900
  HS -- 2200

22-24) Twice a day frequency
  BID -- 0900 & 2100
  Q 12 Hr -- 1200 & 2400

25-30) Three times a day frequency
  TID -- 0900, 1400, 2100
  AC -- 0700, 1100, 1700
  PC -- 0900, 1300, 1900
  Q 8 Hr -- 0600, 1400, 2200
  Q Shift -- 0900, 1700, 0200

31-33) Four times a day frequency
  QID -- 0900, 1300, 1700, 2100
  Q 6 Hr -- 0600, 1200, 1800, 2400

34-35) Six times a day frequency
  Q 4 Hr -- 0200, 0600, 1000, 1400, 1800, 2200

36-37) Twelve times a day frequency
  Q 2 Hr -- Even hours

38-39) 24 times a day frequency
  Q 1 Hr -- On the hour

41) No frequency will be assigned

Figure 4.1.1.1c

---

Word Room Bed Patient Reg # Date Time

---

*** SELECT DIET ***

1) As Tolerated | 12) NPO p 2400
2) Clear Liquids | 13) NPO w/ ice chips
3) Diabetic | 14) Regular
4) Fat-controlled | 15) Renal & Liver Disease
5) Full Liquids | 16) T & A
6) Infant / Neonatal Bottle x1 | 17) Tube Feedings [cont / bags]
7) Infant / Neonatal Bottle x6 | 18) Tube Feedings [bolus]
8) Infant / Neonatal Bottle x12
9) Mechanical Soft

00) Sign-Off | 19) Doctor’s Order Screen | 20) Master Screen

Select one number (00-20) --->

Figure 4.1.1.1d
### SELECT IV ORDER ***

<table>
<thead>
<tr>
<th><strong>1)</strong> Start IV of</th>
<th>0.45 NaCl</th>
<th>Over 30 Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2)</strong> Alternate IV with</td>
<td>Ringer's Lactate</td>
<td>Over 1 Hr</td>
</tr>
<tr>
<td>Follow Present IV w/</td>
<td>DS Ringer's Lactate</td>
<td>Over 2 Hr</td>
</tr>
<tr>
<td><strong>4)</strong> Interrupt IV for</td>
<td>DS Water</td>
<td>Over 4 Hr</td>
</tr>
<tr>
<td><strong>5)</strong> Start Second IV of</td>
<td>Normal Saline</td>
<td>Over 6 Hr</td>
</tr>
<tr>
<td></td>
<td>DS Normal Saline</td>
<td>Over 8 Hr</td>
</tr>
<tr>
<td><strong>6)</strong> Discontinue IV</td>
<td>Whole Blood</td>
<td>Over 12 Hr</td>
</tr>
<tr>
<td><strong>7)</strong> Insert Heparin Lock</td>
<td>Packed Cells</td>
<td>Over 24 Hr</td>
</tr>
<tr>
<td><strong>8)</strong> Use Multilumen Line</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SELECT IV SOLUTION ***

<table>
<thead>
<tr>
<th><strong>1)</strong> Start IV of</th>
<th>DS .45 NaCl</th>
<th>Over 30 Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2)</strong> Alternate IV with</td>
<td>Ringer's Lactate</td>
<td>Over 1 Hr</td>
</tr>
<tr>
<td>Follow Present IV c</td>
<td>DS Ringer's Lactate</td>
<td>Over 2 Hr</td>
</tr>
<tr>
<td><strong>4)</strong> Interrupt IV for</td>
<td>DS Water</td>
<td>Over 4 Hr</td>
</tr>
<tr>
<td>Start Second IV of</td>
<td>Normal Saline</td>
<td>Over 6 Hr</td>
</tr>
<tr>
<td></td>
<td>DS Normal Saline</td>
<td>Over 8 Hr</td>
</tr>
<tr>
<td><strong>6)</strong> Discontinue IV</td>
<td>Whole Blood</td>
<td>Over 12 Hr</td>
</tr>
<tr>
<td><strong>7)</strong> Insert Heparin Lock</td>
<td>Packed Cells</td>
<td>Over 24 Hr</td>
</tr>
</tbody>
</table>

---

**Figure 4.1.1.1e**

**Figure 4.1.1.1f**

---

371
### SELECT INFUSION RATE

<table>
<thead>
<tr>
<th>Start IV of</th>
<th>Alternate IV with</th>
<th>Follow Present IV w/</th>
<th>Interrupt IV for</th>
<th>Start Second IV of</th>
<th>Discontinue IV</th>
<th>Insert Heparin Lock</th>
<th>Use Multilumen Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>.45 NaCl</td>
<td>Ringer’s Lactate</td>
<td>DS Ringer’s Lactate</td>
<td>DS Water</td>
<td>Normal Saline</td>
<td>Normal Saline</td>
<td>Whole Blood</td>
<td>Packed Cells</td>
</tr>
<tr>
<td>1) Over 30 Min</td>
<td>2) Over 1 Hr</td>
<td>3) Over 2 Hr</td>
<td>4) Over 4 Hr</td>
<td>5) Over 6 Hr</td>
<td>6) Over 8 Hr</td>
<td>7) Over 12 Hr</td>
<td>8) Over 24 Hr</td>
</tr>
</tbody>
</table>

**INFUSION RATE**

Current User: Select one number (1-8) ---->

---

### SELECT LABORATORY TEST

<table>
<thead>
<tr>
<th>CHEMISTRY</th>
<th>ENZYMES</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Bilirubin</td>
<td>12) Amylase</td>
<td>21) ABO &amp; Rh</td>
</tr>
<tr>
<td>2) BUN</td>
<td>13) CPK</td>
<td>22) ABO (from A-line)</td>
</tr>
<tr>
<td>3) Calcium</td>
<td>14) LDH</td>
<td>23) ABO (stick)</td>
</tr>
<tr>
<td>4) Chloride</td>
<td>15) SGOT</td>
<td>24) Blood Culture</td>
</tr>
<tr>
<td>5) CO2</td>
<td>16) SGPT</td>
<td>25) Culture &amp; Sensitivity</td>
</tr>
<tr>
<td>6) Creatinine</td>
<td>7) Glucose</td>
<td>26) Cold Agglutins</td>
</tr>
<tr>
<td>8) Phosphate</td>
<td>17) CBC</td>
<td>27) HCG</td>
</tr>
<tr>
<td>9) Potassium</td>
<td>18) Platelets</td>
<td>28) Occ Blood in Stools</td>
</tr>
<tr>
<td>10) Sodium</td>
<td>19) Protime</td>
<td>29) RPR</td>
</tr>
<tr>
<td>11) Uric Acid</td>
<td>20) Sed Rate</td>
<td>30) SMA 6</td>
</tr>
<tr>
<td>31) UA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

001 Sign-Off | 32) Doctor’s Order Screen | 33) Master Screen

Current User: Select one number (00-33) ---->

---

Figure 4.1.1.1g

---

Figure 4.1.1.1h

---

372
### Ward Room Bed Patient Reg # Date Time

*** SELECT MONITORING REQUIREMENTS ***

1) Apnea Monitor  
2) A-line Set-up  
3) A-line Readings  
4) Cardiac Monitor  
5) Cardiac Output  
6) Circulation Checks  
7) CVP Readings  
8) Fundus Checks  
9) Intake & Output  
10) ICP (Monitor) Set-up  
11) Manual ICP Readings  
12) Monitor ICP Readings  
13) Neuro Checks  
14) Pressure Monitor  
15) PAP/PA Wedge Readings  
16) Swan-Ganz Set-up  
17) Temperature Monitor  
18) Transcutaneous Monitoring  
19) Doctor’s Order Screen  
20) Master Screen  

Current User: [Select one number (00-19) ]  

---

** Figure 4.1.1.1i **

---

### Ward Room Bed Patient Reg # Date Time

*** SELECT DESIRED MEDICATION / DOSAGE ***

** ANTIHISTAMINE **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 mg (Q)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>50 mg (IM)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>50 mg (IV)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4 mg (Q)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5 mg Elxr (O)</td>
<td></td>
</tr>
</tbody>
</table>

** ANTI-INFECTIVE **

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>25 mg (Q)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>25 mg (IM)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>25 mg (SP)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ampicillin</th>
<th></th>
<th>Erythromycin</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>250 mg (Q)</td>
<td></td>
<td>250 mg (Q)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>500 mg (IM)</td>
<td></td>
<td>200 mg Susp (Q)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>500 mg (IV)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ancef</th>
<th></th>
<th>Keflex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>.5 Gm (IM)</td>
<td></td>
<td>250 mg (Q)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>.5 Gm (IV)</td>
<td></td>
<td>125 mg Susp (Q)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Cefadyl</th>
<th></th>
<th>Sulfacetamine Na</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>500 mg (IM)</td>
<td></td>
<td>10% Salt (Op)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1.0 Gm (IM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1.0 Gm (IV)</td>
<td></td>
<td>250 mg (Q)</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>10% Salt (Op)</td>
<td></td>
</tr>
</tbody>
</table>

24) Help  25) Next Screen (More Meds)  26) Dr’s Ord Screen  27) Master Screen

Current User: [Select one number (01-27) ]  

---

** Figure 4.1.1.1j **
### Select Desired Medication / Dosage

#### Antiseptic
- **Boric Acid**
  - 1) 5% Solution (I)

#### Cardiovascular
- **Digoxin**
  - 7) 0.125 mg (Q)
  - 8) 0.250 mg (Q)

#### CNS Drugs
- **Dilantin**
  - 15) 100 mg (Q)
  - 16) 125 mg Suspension (Q)

#### Autonomic
- **Atropine**
  - 2) 0.4 mg (Q)
  - 3) 0.4 mg (IM)

- **Valium**
  - 4) 5 mg (Q)
  - 5) 5 mg (IM)
  - 6) 5 mg (IV)

---

**Current User:**

**Select one number (01-24) --->**

---

**Help**

**Previous Screen**

---

**Figure 4.1.1.1k**

---

**Help Screen for Pharmacy Modules**

This Help Facility explains abbreviations used in parenthesis. If the user requires additional information on medications or dosages, they should consult the Physician's Desk Reference (PDR) or contact a Pharmacy Officer. The abbreviations indicate the route of administration:

- (Q) Oral
- (I) Intramuscular
- (IV) Intravenous
- (Sp) Suppository

---

**Figure 4.1.1.11**
Ward Room Bed Patient Reg # Date Time

*** SELECT X-RAY ***

1) Abdomen Flat Plate 10) CT Scan
2) Abdomen AP 11) Gallbladder Series
3) Abdomen 3-way 12) IVP
4) Angiography 13) Sinus Series
5) Arteriography 14) Skull
6) Barium Enema 15) Spine
7) Brain Scan 16) Tomography
8) Chest PA 17) Upper GI Series
9) Chest Lateral 18) Ultrasound

00) Sign-Off 19) Doctor's Order Screen 20) Master Screen

Current User: Select one number (00-20) --->

Figure 4.1.1.1m

---

Ward Room Bed Patient Reg # Date Time

*** SELECT RESPIRATORY THERAPY OPTIONS * THEN FLOW RATE FOR ROUTE ***

- RESPIRATORY THERAPY -

1) Chest Pulmonary Therapy 8) Wean from Ventilator
2) Cough & Deep Breath 9) Croup Tent
3) Incentive Spirometer 10) Mask
4) IPPB 11) Mist Tent
5) Suctioning 12) Nasal Prongs
6) Tracheostomy Care 13) Oxyhood
7) Ventilator

- Flow Rate -

A) 1-2 liters/min
B) 3-4 liters/min
C) 5-6 liters/min
D) 7-8 liters/min
E) 9-10 liters/min

00) Sign-Off 14) Doctor's Order Screen 15) Master Screen

Current User: Select one number (00-15) --->

Select one letter (A-E) --->

Figure 4.1.1.1n

375
<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

### SELECT VITAL SIGN OPTION ***

- ROUTINE -
  1) T-F-R, B/P
  2) Post-op
  3) Post Partum
  4) Post Newborn

- SPECIAL -
  5) FHT
  6) Pulse Apical
  7) Pulse Femoral
  8) Pulse Pedal
  9) Temp Axillary
  10) Temp Rectal
  11) Tilt Test

00) Sign-Off 12) Doctor's Order Screen 13) Master Screen

Current User: Select one number (00-13) ->

Figure 4.1.1.1o

### SELECT WARD ROUTINE ***

<table>
<thead>
<tr>
<th>Home</th>
<th>Home</th>
<th>Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>11) Ace Wrap Lower Ext</td>
<td>12) Lumbar Puncture</td>
<td>20) Simple Drag Change</td>
</tr>
<tr>
<td>2) Chest Tube Insertion</td>
<td>13) N-G Insertion</td>
<td>21) Spec Gravity</td>
</tr>
<tr>
<td>3) Circumcision Care</td>
<td>14) Parenterectomy</td>
<td>22) Spin HCT</td>
</tr>
<tr>
<td>4) Complex Drag Change</td>
<td>15) Phototherapy</td>
<td>23) Straight Cath</td>
</tr>
<tr>
<td>5) EKG Rhythm Strip</td>
<td>16) Range of Motion</td>
<td>24) Surgical</td>
</tr>
<tr>
<td>6) Foley Cath Care</td>
<td>Exercises (Passive)</td>
<td>Shave Prep</td>
</tr>
<tr>
<td>7) Foley Cath Insertion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Guiac Stools</td>
<td>Restraints</td>
<td>25) SS Enema</td>
</tr>
<tr>
<td>9) Isolation Respiratory</td>
<td>17) 2-Point</td>
<td>26) Tap Water Enema</td>
</tr>
<tr>
<td>10) &quot; Reverse</td>
<td>18) 4-Point</td>
<td>27) Thoracentesis</td>
</tr>
<tr>
<td>11) &quot; Strict</td>
<td>19) Posey</td>
<td>28) Tube Care (not trach)</td>
</tr>
<tr>
<td>00) Sign-Off</td>
<td>30) Doctor's Order Screen</td>
<td>31) Master Screen</td>
</tr>
</tbody>
</table>

Current User: Select one number (00-31) ->

Figure 4.1.1.1p

376
### Figure 4.1.1.2

#### Patient Orders For: Mary Miser

Press -- Ctrl and S -- Keys to Pause The Scrolling If Necessary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:15:41</td>
<td>Start IV of .45 NaCl</td>
<td>Infuse o Bkr</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Chloride</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td></td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td></td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platelets</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.3**
### DISCONTINUE AN ORDER ###

<table>
<thead>
<tr>
<th>Date</th>
<th>Start</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
</table>

0) Sign-Off  1) Next Order  2) Discontinue Order  3) Dr's Scrn  4) Master Scrn

Current User: [Select one number (0-4) ----> ]

Figure 4.1.1.4
### NURSING MASTER SCREEN ###

1) Enter/Inactivate Nursing Care Plan  
2) Review Nursing Care Plan  
3) Print Nursing Care Plan  
4) External Patient Classification  
5) Review Patient Care Requirements  
6) Print Patient Care Requirements  
7) Internal Patient Classification  
8) Master Screen

<table>
<thead>
<tr>
<th>Current User:</th>
<th>Select one number (0-8) ----&gt; ♦</th>
</tr>
</thead>
</table>

**Figure 5.1.1**

### SELECT THE DESIRED NURSING CARE PLAN FUNCTION ###

1) Enter a New Care Plan  
2) Inactivate Portions of Care Plans

<table>
<thead>
<tr>
<th>Current User:</th>
<th>Select one number (0-4) ----&gt; ♦</th>
</tr>
</thead>
</table>

**Figure 5.1.1.1**
### SELECT NURSING ASSESSMENTS FOR A PATIENT WITH

**NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN**

<table>
<thead>
<tr>
<th>1) Altered Time Perception</th>
<th>7) Guarding Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Alteration Muscle Tone</td>
<td>8) Impaired Thought Process</td>
</tr>
<tr>
<td>3) Autonomic Response</td>
<td>9) Narrowing Focus</td>
</tr>
<tr>
<td>4) Distraction Behavior</td>
<td>10) Pacing</td>
</tr>
<tr>
<td>5) Facial Mask</td>
<td>11) Patient Report</td>
</tr>
<tr>
<td>6) Other Assessment:</td>
<td>12) Self-Focusing</td>
</tr>
<tr>
<td></td>
<td>13) Talkative</td>
</tr>
<tr>
<td></td>
<td>14) Verbal Complaint</td>
</tr>
<tr>
<td></td>
<td>15) Vocal Complaints</td>
</tr>
<tr>
<td></td>
<td>(Moans, Crying)</td>
</tr>
<tr>
<td></td>
<td>16) Withdrawal From Social Contact</td>
</tr>
</tbody>
</table>

**Current User:**

Select one number (01-16) ———>
SELECT A RELATED FACTOR FOR A PATIENT WITH  NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN

1) Altered Sensation
2) Disease / Condition
3) Emotional State
4) Other: [.............................]
5) Surgical Procedure
6) Trauma
7) Treatment Regime

SELECT A PATIENT GOAL FOR A PATIENT WITH  NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN

1) Communicates Pain Free
2) Communicates Experiences Less Pain
3) Communicates Experience of Pain More Tolerable
4) Demos Skills & Knowledge to Achieve Pt Goals
5) Other Goals: [.................................]

Figure 5.1.1.1c

Figure 5.1.1.1d
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
**COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Assess Pain Factors</td>
<td>6) Offer PRN Medications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Assess &amp; Evaluate Pain</td>
<td>7) Provide Emotional Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Encour Pt to Use Coping Strategy</td>
<td>8) Schedule &quot;Quiet Times&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Give Info &amp; Explain Proc &amp; Tests</td>
<td>9) Teach Alt Coping Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Other Nursing Orders:</td>
<td>10) Utilize Diversional Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Current User:**

Select one number (01-10) ———>

**Figure 5.1.1.1e**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
**DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS **

- *Teach Stress Reduction Techniques*
  1) Deep Breathing
  2) Progressive Relaxation
  3) Relaxation Response
  4) Diversional Activity
  5) Other: [------------------------]

**Current User:**

Select one number (1-5) ———>

**Figure 5.1.1.1f**
<table>
<thead>
<tr>
<th>Selection</th>
<th>Time/Frequency</th>
<th>Time/Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PRN</td>
<td>Daily 2</td>
<td>20) 2200</td>
</tr>
<tr>
<td>2) Q 1-2 Hr PRN</td>
<td>10) 0200</td>
<td>21) 2400</td>
</tr>
<tr>
<td>3) Q 2-3 Hr PRN</td>
<td>11) 0400</td>
<td>31) Q10</td>
</tr>
<tr>
<td>4) Q 3-4 Hr PRN</td>
<td>12) 0600</td>
<td>32) Q6 Hr</td>
</tr>
<tr>
<td>5) On Call</td>
<td>14) 1000</td>
<td>23) Q12 Hr</td>
</tr>
<tr>
<td>6) QD</td>
<td>15) 1200</td>
<td>33) Q4 Hr</td>
</tr>
<tr>
<td>7) HS</td>
<td>16) 1400</td>
<td>34) Q2 Hr</td>
</tr>
<tr>
<td>8) x 1</td>
<td>17) 1600</td>
<td>35) Q1 Hr</td>
</tr>
<tr>
<td>9) Today</td>
<td>18) 1800</td>
<td>36) 2 Hr</td>
</tr>
<tr>
<td>10) Help</td>
<td>19) 2000</td>
<td>37) 12 Hr</td>
</tr>
<tr>
<td>41) Return to Calling Screen</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.1.1g**

**HELP SCREEN FOR THE TIME MODULE**

Hospital policy dictates the exact time for standardized abbreviations.

<table>
<thead>
<tr>
<th>Selection</th>
<th>Time/Frequency</th>
<th>Time/Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4) PRN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-21) Single dosages</td>
<td>Q6 Hr -- 0600, 1200, 1800, 2400</td>
<td></td>
</tr>
<tr>
<td>22-24) Twice a day frequency</td>
<td>Q 4 Hr -- 0200, 0600, 1000, 1400, 1800, 2200</td>
<td></td>
</tr>
<tr>
<td>25-30) Three times a day frequency</td>
<td>Q 2 Hr -- Even hours</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.1.1h**
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS
NURSE CARE PLANNING AND PATIENT CLASSIFICATION (U) NAVAL
POSTGRADUATE SCHOOL MONTEREY CA G R HAREYER MAR 86

UNCLASSIFIED
You have identified teaching as a nursing intervention. Please specify the type of teaching that will be required. Remember to document the teaching you give to your patient.

A) Group Teaching
B) Preoperative Teaching
C) Return to Previous Screen
D) Structured Teaching
   (i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, or discharge)

Select one letter (A-D) ---> *

Figure 5.1.1.11

You have identified emotional support as a nursing intervention. Emotional support is expected for each patient, but augmented staffing may be required for the following:

* Answer A-C only if emotional support is in excess of 30 min q24h *

A) Patient/family support (i.e. anxiety, denial, loneliness, etc.)
B) Modification of lifestyle (i.e. new prosthesis, body image, behavior modification, etc.)
C) Sensory deprivation (i.e. retarded, deaf, blind, language barrier, bilateral eye patches, confused, combative)
D) Return to previous screen

Select one letter (A-D) ---> *

Figure 5.1.1.1j

384
SELECT NURSING ASSESSMENTS FOR A PATIENT WITH
** NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL **

1) Anxiety  6) Inability to Hear  10) Slurring
2) Disorientation  7) Inability to Speak  11) Stuttering
3) Fear  8) Incomprehensible Speech  12) Tearfulness
4) Frustration  9) Refusal to Speak  13) Thought Disorder
5) Other Assessment: [...............................]

Current User: | Select one number (01-13) --->

Figure 5.1.1.1k

SELECT A RELATED FACTOR FOR A PATIENT WITH
** NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL **

1) Anatomical Impairment  6) Foreign Language
2) Cultural Difference  7) Mental Capacity
3) Developmental Age  8) Sedation
4) Disease Process  9) Surgical Procedure
5) Other: [...............................]  10) Treatment Regime

Current User: | Select one number (01-10) --->

Figure 5.1.1.11

385
**SELECT A PATIENT GOAL FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL**

<table>
<thead>
<tr>
<th>Patient Education Stages</th>
<th>Patient Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Communicates Needs Thru Words</td>
<td>5) Reports Less Anxiety</td>
</tr>
<tr>
<td>2) Comm Needs Thru Mechanical Tools</td>
<td>6) Reports Less Fear</td>
</tr>
<tr>
<td>3) Demo Skills to Achieve Goals</td>
<td>7) Reports Less Stress</td>
</tr>
<tr>
<td>4) Other Goals:</td>
<td></td>
</tr>
</tbody>
</table>

Current User: [Select one number (1-7)]

Figure 5.1.1.1m

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**COMMUNICATES NEEDS THROUGH USE OF WORDS OR MECHANICAL TOOLS**

<table>
<thead>
<tr>
<th>Patient Education Stages</th>
<th>Patient Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Apprise Others of Communication Prob</td>
<td>6) Prov Translated Phase Chart</td>
</tr>
<tr>
<td>2) Provide Emotional Support</td>
<td>7) Provide Translator</td>
</tr>
<tr>
<td>3) Provide Paper &amp; Pencil</td>
<td>8) Simple Ques w/ Y/N Ans</td>
</tr>
<tr>
<td>4) Provide Spelling Board</td>
<td>9) Use Sign Language</td>
</tr>
<tr>
<td>5) Other Nursing Order:</td>
<td>10) Use Establish Comm for ADL</td>
</tr>
</tbody>
</table>

Current User: [Select one number (01-10)]

Figure 5.1.1.1n
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**REPORTS DECREASED LEVEL OF STRESS, ANXIETY, OR FEAR**

| 1) Encourage Patient to Speak Slowly       | 6) Provide Translated Phase Chart |
| 2) Encour To Util Coping Strategy         | 7) Provide Translator            |
| 3) Explain Proc and Elicit Question       | 8) Simple Questions w/ Y/N Answers|
| 4) Provide Spelling Board                 | 9) Use Sign Language             |
| 5) Other Nursing Orders:                   | 10) Use Establish Comm for ADL    |

| Current User: | Select one number (01-10) ——> |

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**DEMONSTRATES SKILLS TO ACHIEVE GOALS**

- *Teach Method Preop for Postop Use*
- *Teach Stress Reduction Techniques*

| 1) Blink 1x For No, 2x For Yes   | 6) Deep Breathing |
| 2) Squeeze Hand For Y/N Response | 7) Diversational Activities |
| 3) Teach Proper Use Of Mach Device | 8) Progressive Relaxation |
| 4) Apprise Others of Comm Problem | 9) Relaxation Response |
| 5) Other Nursing Orders: [.................] |

| Current User: | Select one number (1-9) ——> |

**Figure 5.1.1.10**

**Figure 5.1.1.1p**

337
** SELECT NURSING ASSESSMENTS FOR A PATIENT WITH **
** NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Confinement Imposed</td>
<td>7) Inability to Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Fatigues Easily</td>
<td>8) Inability to Turn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Gait Impairment</td>
<td>9) Limited Range of Motion (ROM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Impaired Coordination</td>
<td>10) Reluctant to Move</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Inability to Ambulate</td>
<td>11) Use of Assistive Devices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other: [..........................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: | Select one number (01-11) --->

Figure 5.1.1.1q

** SELECT A RELATED FACTOR FOR A PATIENT WITH **
** NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Decreased Activity Tolerance</td>
<td>7) Inability to Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Musculoskeletal Function</td>
<td>8) Inability to Turn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Neuromuscular Function</td>
<td>9) Limited Range of Motion (ROM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Pain / Discomfort</td>
<td>10) Reluctant to Move</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Treatment Regime</td>
<td>11) Use of Assistive Devices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other: [..........................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: | Select one number (1-6) --->

Figure 5.1.1.1r
<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>
|               | **SELECT A PATIENT GOAL FOR A PATIENT WITH**
|               | **NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY** |
| 1 | Able to Transfer Independently | 7 | Maintains Full ROM |
| 2 | Able to Transfer w/ Assistance | 8 | Maintain Pattern of Elimination |
| 3 | Demonstrates Skills to Achieve Goals | 9 | Maintain Skin Integrity |
| 4 | Increase Range of Motion (ROM) | 10 | No Additional Contractures |
| 5 | Maintain Effective Breathing Pattern | 11 | Performs ADL |
| 6 | Other Goals: [.................................] |

**Current User:**

Select one number (01-11) --->

Figure 5.1.1.s

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>
|               | **SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
|               | **MAINTAINS FULL ROM, INCREASES ROM, NO ADDED CONTRACTURES**
|               | **OR MAINTAINS EFFECTIVE BREATHING PATTERN** |
| 1 | Active Range Of Motion (ROM) | 6 | Passive Range Of Motion (ROM) |
| 2 | Cough & Deep Breath | 7 | Positioning |
| 3 | Encourage Independent ADL | 8 | Turning |
| 4 | Gradual Increase ADL Activity | 9 | Accom Pt Off Ward (>15 <30min) |
| 5 | Other Nursing Orders: [.................................] | 10 | Accom Pt Off Ward (> 30 min) |

**Current User:**

Select one number (01-10) --->

Figure 5.1.1.t

339
### Figure 5.1.1.1u

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS TO MAINTAIN SKIN INTEGRITY OR OTHER**

1. Ambulate
2. Assist to Select Diet
3. Encourage Independent ADL
4. Massage to Promote Circulation
5. Personal Possessions within Reach
6. Other Nursing Orders: [.....................]

Current User: | Select one number (01-11) ---->

---

### Figure 5.1.1.1v

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS TO MAINTAIN PATTERN OF ELIMINATION OR PERFORMS ADL AFTER SOME SELECTIONS YOU WILL BE ASKED FOR FREQUENCY**

1. Ambulate with Assistance
2. Increase Independence Doing ADL
3. Plan for Continuing Care
4. Position
5. Other Nursing Orders: [.....................]

Current User: | Select one number (1-8) ---->

---

390
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**ABLE TO TRANSFER INDEPENDENTLY OR WITH ASSISTANCE**

1) Assist: Bed to Chair
   2) Assist: Bed to Wheelchair
   3) Other Nursing Orders: [......................]

Current User: [Select one number (1-5)] -->

Figure 5.1.1.1w

---

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**DEMONSTRATES SKILLS TO ACHIEVE GOALS**

1) Provide Opportunity To Practice Skills
   2) Teach Factors for Impaired Mobility
   3) Teach Rationale for Skills
   4) Other Nursing Orders: [.............................]

Current User: [Select one number (1-6)] -->

Figure 5.1.1.1x
**SELECT NURSING ASSESSMENTS FOR A PATIENT WITH **  
** NURSING DIAGNOSIS OF SELF-CARE DEFICIT **

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Unable to Cloth Self</td>
<td>7) Unable to Get to BR</td>
<td>11) Unable to do Toile Hygiene</td>
<td></td>
</tr>
<tr>
<td>2) Unable to Cut Food</td>
<td>8) Unable to Mant Appear</td>
<td>12) Unable to Rise Off Toilet</td>
<td></td>
</tr>
<tr>
<td>3) Unable to Drink</td>
<td>9) Unable to Select Cloth</td>
<td>13) Unable to Flush Toilet</td>
<td></td>
</tr>
<tr>
<td>4) Unable to Fasten Cloth</td>
<td>10) Unable to Sit on Toilet/Commode</td>
<td>14) Unable to Wash Sel</td>
<td></td>
</tr>
<tr>
<td>5) Unable to Feed Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other Assessment: [.................................]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: [ ]

Select one number (01-14) --->

Figure 5.1.1.1y

---

**SELECT A RELATED FACTOR FOR A PATIENT WITH **  
** NURSING DIAGNOSIS OF SELF CARE: DEFICIT **

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Activity Intolerance</td>
<td>6) Neuromuscular Impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Depression</td>
<td>7) Pain/Discomfort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Developmental Phase</td>
<td>8) Perceptual Impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Musculoskeletal Function</td>
<td>9) Sensory Impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Other: [.................................]</td>
<td>10) Severe Anxiety</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: [ ]

Select one number (01-10) --->

Figure 5.1.1.1z
** SELECT A PATIENT GOAL FOR A PATIENT WITH A **
** NURSING DIAGNOSIS OF SELF-CARE: DEFICIT **
** THEN SELECT CURRENT LEVEL OF CARE REQUIRED **

<table>
<thead>
<tr>
<th>Patient Goal</th>
<th>Current Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Functions @ Level 0: Full Self Care</td>
<td>A) Infant/Toddler Care</td>
</tr>
<tr>
<td>2) Functions @ Level 1: Use of Equip or Device</td>
<td>B) Self/Minimum Care</td>
</tr>
<tr>
<td>3) Functions @ Level 2: Needs Assist/Supervision</td>
<td>C) Assisted Care</td>
</tr>
<tr>
<td>4) Functions @ Level 3: Needs Assist &amp; Use Device</td>
<td>D) Complete Care</td>
</tr>
<tr>
<td>5) Functions @ Level 4: Dependent &amp; Does Not Participate</td>
<td>E) Total Care</td>
</tr>
</tbody>
</table>

Current User: Select one number (1-5) ===>
Select one letter (A-E) ===>

---

** Figure 5.1.1.1aa **

** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** FUNCTIONS AT LEVEL 0: FULL SELF-CARE **

1) Support Increasing Independence in ADL
   (e.g. feeding, bathing, toileting, dressing, grooming, etc.)

2) Peds Recreation/Observation

3) Other Nursing Orders: (........................................)

Current User: Select one number (1-3) ===>

---

** Figure 5.1.1.1ab **
## Nursing Orders

### Functions at Level 1: Needs Equipment or Device

<table>
<thead>
<tr>
<th>Number</th>
<th>Order Description</th>
<th>Number</th>
<th>Order Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provide Equip For Bathing</td>
<td>5</td>
<td>Provide Equip For Toileting</td>
</tr>
<tr>
<td>2</td>
<td>Provide Equip For Dressing</td>
<td>6</td>
<td>Peds Recreation/Observation</td>
</tr>
<tr>
<td>3</td>
<td>Provide Equip For Feeding</td>
<td>7</td>
<td>Spoon Feed Adult Patient</td>
</tr>
<tr>
<td>4</td>
<td>Other Nursing Orders:</td>
<td>8</td>
<td>Spoon Feed Child (&lt;6)</td>
</tr>
</tbody>
</table>

Select one number (1-8) ---->

**Figure 5.1.1.ac**

---

### Functions at Level 2: Needs Assistance/Supervision or Other

<table>
<thead>
<tr>
<th>Number</th>
<th>Order Description</th>
<th>Number</th>
<th>Order Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assist to Dress</td>
<td>7</td>
<td>Feed Adult Patient</td>
</tr>
<tr>
<td>2</td>
<td>Assist To/From Bathroom</td>
<td>8</td>
<td>Give Emotional Support</td>
</tr>
<tr>
<td>3</td>
<td>Assist w/ Partial Bath</td>
<td>9</td>
<td>Give Complete Bath</td>
</tr>
<tr>
<td>4</td>
<td>Assist: Comb/Brush Hair</td>
<td>10</td>
<td>Keep Commode @ Bedside</td>
</tr>
<tr>
<td>5</td>
<td>Dress Patient</td>
<td>11</td>
<td>Kp Urinal/Bedpan Near</td>
</tr>
<tr>
<td>6</td>
<td>Other: [.................................]</td>
<td>12</td>
<td>Peds Recreation/Obs</td>
</tr>
<tr>
<td>12</td>
<td>Peds Recreation/Obs</td>
<td>13</td>
<td>Set up Food Tray</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>14</td>
<td>Shave Patient</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>15</td>
<td>Socialize During Mec</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>16</td>
<td>Spoon Feed Child</td>
</tr>
</tbody>
</table>

Select one number (01-16) ---->

**Figure 5.1.1.acd**
** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** FUNCTIONS AT LEVEL 3: NEEDS ASSISTANCE AND USES EQUIP **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Assist to Dress</td>
<td>7) Feed Adult Patient</td>
<td>12) Provide Necessary Eq</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Assist To/From Bathroom</td>
<td>8) Give Emotional Support</td>
<td>13) Provide Oral Hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Assist w/ Partial Bath</td>
<td>9) Give Complete Bath</td>
<td>14) Set Up Food Tray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Assist: Comb/Brush Hair</td>
<td>10) Keep Commode &amp; Bedside</td>
<td>15) Spoon Feed Child (&lt;6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other: [............................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (01-16) -->

** Figure 5.1.1.ae **

---

** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** FUNCTIONS AT LEVEL 4: DEPENDENT AND DOES NOT PARTICIPATE **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Assist To/From Bathroom</td>
<td>7) Give Complete Bath</td>
<td>12) Spoon Feed Child (&lt;6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Assist To/From Commode</td>
<td>8) Give Emotional Support</td>
<td>13) Other Act (&gt;15 &lt;30mn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Assist: Comb/Brush Hair</td>
<td>9) Provide Oral Hygiene</td>
<td>14) Other Act (&gt;30 &lt;1 hr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Dress Patient</td>
<td>10) Provide Personal Hygiene</td>
<td>15) Special Proc (&gt;1 &lt;2h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Feed Adult Patient</td>
<td>11) Provide Urinal/Bedpan</td>
<td>16) Xtra Linen Chge/P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other: [............................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (01-16) -->

** Figure 5.1.1.af **
### INACTIVATE A NURSING CARE PLAN ###

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Nursing Diagnosis Related To Factor</th>
<th>Patient Goal</th>
<th>Assessment</th>
<th>Nursing Order</th>
<th>Frequency</th>
<th>Emotion/Teach</th>
<th>Nurse</th>
</tr>
</thead>
</table>

#### Current User: **Select one number (0-4) ———> *  

---

**Press — Ctrl and S — Keys to Pause The Scrolling If Necessary**

**Page No. 1  03/04/86**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Nursing Diagnosis Related To Factor</th>
<th>Patient Goal</th>
<th>Assessment</th>
<th>Nursing Order</th>
<th>Frequency</th>
<th>Emotion/Teach</th>
<th>Nurse</th>
</tr>
</thead>
</table>

- **01/01/86 10:06:24** Comfort Alteration In: Pain Alteration In Muscle Tone Disease / Condition: Communicates Experience Tolerable Pain Teach Alt Coping Strategies: Structured Teaching G. Harmeyer
- **01/01/86 10:06:12** Impaired Physical Mobility Reluctant To Move Musculoskeletal Function: Able To Transfer With Assistance Assist Bed To Wheelchair: TID Structured Teaching G. Harmeyer
- **01/01/86 10:10:58** Self-Care Deficit Unable To Do Toilet Hygiene Neuromuscular Impairment: Func @ Level 2, Needs Assist/Supervise Keep Commode @ Bedside: TID Structured Teaching G. Harmeyer

---

Figure 5.1.1.2

---

396
Press -- Ctrl and S -- Keys To Pause The Scrolling If Necessary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>10:06:20</td>
<td>Teach Alt Coping Strategies</td>
<td></td>
<td>G. Harmeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>12:08:07</td>
<td>Assist Bed To Wheelchair</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:15</td>
<td>Self/Minimum Care</td>
<td></td>
<td>G. Harmeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:53</td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
<td>G. Harmeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>10:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Cloride</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platlets</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:22:02</td>
<td>Intake &amp; Output</td>
<td>TID</td>
<td>T. Bui MD</td>
</tr>
</tbody>
</table>

Figure 5.1.1.3

Patient: Mary Miser
Is In: Category II
Point Value Is: 27

Figure 5.1.1.4
*** SELECT ADD / DELETE A USER ***

1) Add A User

2) Delete A User

0) Sign-Off

Select one number (0-2) ----> 

Figure 6

USER INFORMATION

*** THIS INFORMATION IS CONFIDENTIAL ***

First Initial: 
Middle Initial: 
Last Name: 
Category of Requestor: 
Password: 
Access Level:

Figure 6.1

398
### DELETE A USER ###

<table>
<thead>
<tr>
<th>User's Name</th>
<th>Category</th>
<th>Access Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0) Sign-Off  1) Next User  2) Delete User  3) Add/DeleteScr

Current User: [Select one number (0-3)]->

Figure 6.2
APPENDIX G

DATABASE STRUCTURE

Structure of the four databases used in the prototype project. Names have been elongated to provide more meaning for the reader.

**Patient database**

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST NAME</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>FIRST NAME</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>MIDDLE NAME</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>RATE/RANK</td>
<td>Character</td>
<td>11</td>
</tr>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>BIRTH DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>AGE</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>SEX</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>ADMISSION DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>REGISTRATION NUMBER</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>MEDICAL DIAGNOSIS</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>PHYSICIAN</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>PROGNOSIS</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>ALLERGIES</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>WARD</td>
<td>Character</td>
<td>2</td>
</tr>
<tr>
<td>ROOM</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>BED</td>
<td>Character</td>
<td>1</td>
</tr>
</tbody>
</table>

**Order database**

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>ORDER</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>TIME</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>DATE</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>PRACTITIONER</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>QUALIFIER</td>
<td>Character</td>
<td>6</td>
</tr>
<tr>
<td>TODAYONLY</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>PATIENT POINTS</td>
<td>Numeric</td>
<td>3</td>
</tr>
<tr>
<td>MODULE</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>MONITOR POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
<tr>
<td>EMOTION POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
<tr>
<td>ROUTINE POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
</tbody>
</table>
### Nursing core database

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>NURSING DIAGNOSIS</td>
<td>Character</td>
<td>30</td>
</tr>
<tr>
<td>NURSING ASSESSMENT</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>RELATED FACTORS</td>
<td>Character</td>
<td>25</td>
</tr>
<tr>
<td>PATIENT GOAL</td>
<td>Character</td>
<td>38</td>
</tr>
<tr>
<td>NURSE'S ORDER</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>TIME</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>NURSE</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>EMOTIONAL/TEACHING</td>
<td>Character</td>
<td>19</td>
</tr>
</tbody>
</table>

### User's information database

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER'S FIRST INITIAL</td>
<td>Character</td>
<td>2</td>
</tr>
<tr>
<td>USER'S MIDDLE INITIAL</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>USER'S LAST NAME</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>REQUESTOR</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>PASSWORD</td>
<td>Character</td>
<td>5</td>
</tr>
<tr>
<td>ACCESS LEVEL</td>
<td>Numeric</td>
<td>1</td>
</tr>
<tr>
<td>No.</td>
<td>Distribution List</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Defense Technical Information Center</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cameron Station</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alexandria, Virginia 22304-6145</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Library, Code 0142</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Postgraduate School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monterey, California 93943-5002</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>CAPT S. A. Holmes, NC, USN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Health Sciences Education and Training Command (Code 2NC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Medical Command National Capitol Region</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bethesda, Maryland 20814-5022</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>CDR K. A. Reider</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval School of Health Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Research Department)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bethesda, Maryland 20814-5033</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>CDR Mary Hauser</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bethesda, Maryland 20814</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>LCDR M. Goldun</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Medical Data Services Command</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bethesda, Maryland 20814-5066</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>LCDR M. E. Quisenberry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3095 Marina Drive #40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marina, California 93933</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>LCDR G. R. Hameyer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4923 France Street</td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Charleston, South Carolina 29406</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Curricular Office, Code 37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Postgraduate School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monterey, California 93943-5000</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Professor Tung Bui</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naval Postgraduate School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monterey, California 93943-5000</td>
<td></td>
</tr>
</tbody>
</table>

402
END

DTIC

8-86