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CLINICAL INVESTIGATION PROGRAM(U) TRIPLER ARMY MEDICAL CENTER HI S A CUCINELL 81 OCT 85

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TRIPLER ARMY MEDICAL CENTER

CLINICAL INVESTIGATION PROGRAM
REPORTS CONTROL SYMBOL MED-300 (R1)
FISCAL YEAR 1985

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED
**Title:** CLINICAL INVESTIGATION PROGRAM

**Annual Progress Report**

**Author(s):** SAMUEL A. CUCINELL, COL, MC

Chief, Department of Clinical Investigation

**Performing Organization Name and Address:**

Department of Clinical Investigation
Tripler Army Medical Center
Tripler AMC, Hawaii 96859

**Report Date:** 1 October 1985

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**Subject report identifies those individuals who are conducting investigative protocols at Tripler Army Medical Center. An abstract of each project giving abbreviated technical objectives, methods, and progress is presented.**

**Key Words:** Clinical investigation; experimental projects; research projects; in-house research; publications, presentations of research data; project status; experimental design

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**Distribution Statement:**

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**Security Class:** UNCLASSIFIED

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**Abstract:**

Subject report identifies those individuals who are conducting investigative protocols at Tripler Army Medical Center. An abstract of each project giving abbreviated technical objectives, methods, and progress is presented.
ANNUAL PROGRESS REPORT

DEPARTMENT OF CLINICAL INVESTIGATION
Reports Control Symbol MED-300(R-1)

FISCAL YEAR 1985
1 October 1985

DEPARTMENT OF CLINICAL INVESTIGATION
TRIPLER ARMY MEDICAL CENTER
Tripler AMC, Hawaii 96859-5000
FOREWORD

Contained herein are progress reports on research projects fostered by the Clinical Investigation Program at Tripler Army Medical Center (TAMC) during Fiscal Year 1985.

The human research has been approved by the Clinical Investigation and Human Use Committees of TAMC in accordance with Army Regulations and Federal Law. In conducting the research described in this report, the investigators adhered to the "Guide for Laboratory Animal Facilities and Care", as promulgated by the National Academy of Sciences/National Research Council, the criteria established by the American Association for Accreditation of Laboratory Animal Care, and the principles embodied in the Declaration of Helsinki.

This Annual Progress Report contains publications, presentations, awards, proposals, preliminary findings, unit staffing, and fiscal data.

We thank MG Tracy E. Strevey, Jr., MD, MC and his staff for their support.

SAMUEL A. CUCINELL
Colonel, MC
Chief, Dept of Clinical Investigation
UNIT SUMMARY

A. OBJECTIVES: The mission of the Department of Clinical Investigation (DCI) is to maintain all the research activities at TAMC in compliance with regulations and law. Secondarily, we attempt to assist those interested in research.

B. TECHNICAL APPROACH: The measure of success has been the published manuscript. To this goal, we have tried to identify the limiting factors to publications. The machinations that TAMC has used to overcome these limitations have been to (1) provide professional typing and editing services, (2) provide monies for TDY for presentations only if the previous TDY presentation paper has been submitted for publication, (3) create good publicity, and (4) get grants for additional research. More can be done as noted under "PROBLEMS."

C. STAFFING:

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E. PROGRESS: The number of publications in Fiscal Year 1985 has increased to 52 from 48 in 1984. Only the subspecialty fellows, however, have published original work in peer-reviewed, national circulation journals. The publications from the residents and staff are, for the most part, literature and chart reviews and case reports. This represents the limitation of available time. As the fellowships decrease, the original work may disappear if no compensations are made.

F. PROBLEMS: The problems in meeting both our primary and secondary mission are decreased staff, increased administration, higher scientific demand, and time. The staff of DCI is now down to 17, and we anticipate a large turnover of staff this year. There is no chance of increased personnel without grant support, but a shift in duties may ameliorate the problem.
There was an increase in the number of non-oncology protocols approved by the Clinical Investigation (CIC) and Human Use Committees (HUC) from 23 in 1984 to 42 in 1985. This represents an increased interest in research, but each protocol requires typing, photocopying, preparation of minutes, and inclusion in the annual report. This process requires more than one person full-time. The cost of just the administration of each protocol is between $500 and $1000. It is not possible to support more protocols. Without loss of publication potential, it is possible to limit the protocols by (1) presenting the animal studies only to the Animal Use Committee and not to the Clinical Investigation Committee, and (2) screening the human protocols by circulating the protocol to interested specialists at TAMC for critique and analysis.

Other cost/time savings would be in gathering the data for this "annual report" at the same time as the "annual review" for the Human Use Committee purposes.

Most of the increase in human protocols is from residents and, with rare exceptions, residents are just too busy to write a good protocol and complete original research. The veterinary staff of DCI can help with the animal studies, and we expect excellent results from protocols 3A/85, 33A/85, and 42A/85, but at present there is little DCI can do to help with hospital research. It is planned to convert some slots to clinical MOS positions. These individuals would then be able to give direct assistance to the clinical staff doing human research, thereby stretching the limited time available to the resident staff for research.

An unresolvable problem for a small research unit in a non-university hospital is the reality that the technical aspects of research are already too complicated for us to be current or competitive except in narrow fields. TAMC realized this several years ago and has systematically narrowed its efforts. It is unfortunate that young people must be advised that their research cannot be done here, but it is better to honestly guide them in advance. That is part of good research, too.

There has been a recent trend to present protocols to the HUC that are not research. New procedures and drug uses that are accepted in the medical literature, but not approved by a government body, in particular the FDA, are being presented to the HUC as if the HUC offered some authorization and protection. These nonresearch protocols do not meet the basic standards of clinical investigation such as blinding, statistical analysis, and numbers of subjects. If there is a need for authorization for new clinical methods, it might be better obtained through more specific methods.

The Command, clinical and administrative staffs, and people of TAMC and the Hawaii military community have supported the research described in this text consistently and generously.
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Strevey TE: Tripler Construction Project. Hawaii Surgical Association Annual Meeting, Oahu, HI, August 1985
Detail Summary Sheet

Prot No: 13S/85  Status: Terminated

TITLE: Alexithymia in an Army Population

Principal Investigator: LTC Larry Reed, MC

Associate Investigators:

Department/Section: Administrative Residents

Key Words: alexithymia

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: Sep 85

Gifts: None  Decision: Terminate

OBJECTIVE: To determine if military patients suffering from psychosomatic and nonpsychosomatic disorders exhibit the pattern of thinking termed "alexithymia."

TECHNICAL APPROACH: As many as 30 patients, in two diagnostic categories, psychosomatic illness versus nonpsychosomatic illness, will be selected. They will be interviewed by the investigator and a score between zero and seven will be awarded according to the Beth Israel Questionnaire (Short Form) for Alexithymia. A t or Z score will then be calculated for the difference in mean scores between the two groups. The level of significance is five percent.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Decision was made to cancel project because the questionnaire was inadequate.
OBJECTIVE: The process of refining this technique continues and general acceptance and clinical use of the method is expected to follow the extended series of publications appended below.

TECHNICAL APPROACH: The arrival of commercially made catheters to our design is awaited. These are intended to include balloon devices for hepatic vein blood sampling, together with integral retrograde injection systems and thermistors.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The study is completed. A new publication is listed and another has been submitted as shown.


OBJECTIVE: To compare accuracy obtainable by injection of hypertonic saline and recording of resulting change in electrical conductivity in the blood vessel above and below the hepatic veins or in the pulmonary artery as an alternative to thermal dilution (TD).

TECHNICAL APPROACH: Injection of 37°C hypertonic saline and measurement of conductivity change giving curves similar to those of thermodilution will be attempted as a method of eliminating heat gain and temperature measurement errors inherent in the TD technique.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The specialized components required for fabrication of both catheter and electrical conductivity measuring apparatus have not been obtained, and therefore the project is terminated.
OBJECTIVE: Is the splanchnic bed a contributor to the alkalization of plasma during recovery from lactic acidosis? A secondary goal is the continued calibration of the "hepatic vein blood flow by thermodilution" method.

TECHNICAL APPROACH: Following induction of Ketamine induced anesthesia and positioning of thermal dilution catheters for measurement of liver blood flow and cardiac output, intubated swine are ventilated with a 10% O₂ gas mixture equivalent to the atmosphere at 14,000 ft. During this procedure and following return to sea level atmosphere, blood lactate and blood pH will be monitored both from central venous and hepatic veins at frequent intervals. Concurrently, blood pressure, electrocardiograph, and heart rate will be monitored throughout the progress of these experiments.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Following preliminary studies with swine taken to altitudes of 30,000 and 14,000 feet at which each rapidly succumbed, the apparatus has been modified to ventilate the animals with the appropriate gas mixture as opposed to the previous technique of spontaneous respiration of the gas mixture. Should this modification prove unsuccessful, a different animal model will be attempted.

*Hepatic vein blood flow catheters from Edwards Laboratory
Objective: To determine the physiologic response of antidiuretic hormone (ADH) secretion in cerebrospinal fluid (CSF) and plasma in the newborn infant who has experienced central nervous system (CNS) injury, hypoxemia and asphyxia, i.e., is there evidence for independent control of release of ADH into the CSF and plasma. Also, to test the hypothesis that hypoxemia will increase release of ADH into the CSF and consequently lead to increased pressure in the CSF or other evidence of cerebral edema.

Technical Approach: Subjects will be neonates admitted for evaluation of sepsis, as well as all newborn infants with intracranial hemorrhage, CNS injuries from birth trauma, and neonates experiencing severe asphyxia with hypoxemia, increased intracranial pressure, and cerebral edema. On admission, each patient's APGAR scores, temperature, heart rate, blood pressure, and weight will be recorded. Arterial blood gases will be evaluated for acidosis, hypoxemia, and oxygen requirement. Spinal fluid will be collected for ADH assay, Na+ and K+ concentration, and osmolality. Urine will be assessed for creatinine, Na+, K+, osmolality, and ADH concentration. The data collected will be assessed to determine the correlation of CSF ADH and urinary ADH excretion and the correlations of both of these parameters to known stimulators of ADH release, i.e., plasma osmolality (if available), CSF osmolality, body temperature, and arterial blood pressure and PaO₂ and PaCO₂. If computerized axial tomography scans are performed, an attempt will be made to correlate cerebral edema with high CSF ADH levels.

Progress: No. of Subjects Enrolled - To Date: 22 Reporting Period: 0

No progress was made on this protocol during FY 85. To date, 22 neonates have been assessed for CSF ADH concentration. Of those, 20 have had sufficient blood gas analysis for preliminary statistical work-ups. Results are as yet statistically insignificant, although tendencies are evident. Increased arterial pH, PO₂, and APGAR scores are associated with decreased CSF ADH concentrations. It is expected that 40 to 60 more patients would be sufficient to complete this study. In another project, we have established "normal" urinary ADH excretion rates for neonates.
OBJECTIVE: To determine if a biologically inactive but immunologically detectable metabolite constitutes a significant amount of the vasopressin molecule excreted in the urine.

TECHNICAL APPROACH: Vasopressin has been shown to be metabolized in the renal nephron of some animals. We have analyzed vasopressin with two antisera that we have characterized as being specific to the "tail" or "ring" portion of the vasopressin molecule. Urine will be fractionated by various methods. If two chemical identities can be shown that have immunological activity with one antibody but not the other, our results would clarify the need to use a specific type of vasopressin antisera. Our hypothesis is that this is the case, and that a "ring"-directed antibody detects more of the filtered vasopressin than a "tail"-directed antibody, and is therefore essential for the most accurate assessment urinary vasopressin in excretion.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Human, pig, rat, and dog urine contain immunologically detectable vasopressin measured by both "tail" and "ring"-directed antibodies. Using HPLC, we have identified two immunologically active peaks. Also, we have found 3 H phe-vasopressin is identifiable in the same two peaks. The obvious possible metabolites, i.e., des-gly AVP; des-gly, des-arg AVP; and des-gly, des-arg, des-Pro AVP have been ruled out. We have not achieved isolation of the material. Studies on the urine of human neonates have shown that this possible metabolism of vasopressin does not begin until about 2 months of age.


OBJECTIVE: Immunologically detectable vasopressin activity in urine can be fractionated by high performance liquid chromatography (HPLC) into two major peaks. One peak corresponds to vasopressin. The other may be a metabolite of vasopressin. The objective of this research is to provide evidence that will either confirm or disprove the hypothesis that this non-vasopressin peak is a metabolite.

TECHNICAL APPROACH: If this non-vasopressin peak is the result of specific vasopressin enzymes that produce a metabolite of vasopressin, the enzyme system(s) should demonstrate saturability. For instance, as plasma concentrations of vasopressin increase, the non-vasopressin substance should increase to a point and then show a great reduction in the rate of increase. Also, analogues of vasopressin should be able to competitively inhibit the production of the non-vasopressin substance(s). These principals will be applied in human studies in which DDAVP, an antidiuretic synthetic analogue of vasopressin, will be administered and the renal clearance of vasopressin will be determined (CAVP = AVP).

Also, the quantity of non-vasopressin substance will be measured after HPLC separation. If the non-vasopressin substance is produced by a specific enzyme system, DDAVP should decrease its production. In other studies, we will inject $^3$H-vasopressin into rats and collect urine. In this situation, two peaks of radioactivity can be detected after HPLC analysis of the urine. Competitive inhibition of this non-vasopressin peak will also be studied by injection of unlabeled vasopressin and analogues of vasopressin.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

We have demonstrated that $^3$H-vasopressin does appear in two fractions in the urine after HPLC analysis. These results will be published as part of a symposium publication listed in the summary of protocol No. 25/80. These radioactive peaks closely correspond to the immunologically detectable peaks of vasopressin activity. None of the other studies have been started at this time due to other priorities.
Detail Summary Sheet

Prot No: 29H/84 Status: Completed

Title: The Effects of 31 ATA on Circadian Patterns in Renal and Cardiovascular Function

Principal Investigator: John R. Claybaugh, Ph.D.

Associate Investigators:

Department/Section: Clinical Investigation/Physiology

Key Words: saturation diving; hyperbaria; urine composition; vasopressin; renin; aldosterone; tilt table; circadian rhythms

Funding: FY 84: $300. FY 85: $2000. Periodic Review Date:

Gifts: * Decision: Completed

OBJECTIVE: An attempt will be made to determine the mechanism whereby saturation divers at 31 ATA (1000 ft sea water) experience a nocturnal diuresis.

TECHNICAL APPROACH: The study was conducted at the Japan Marine Science and Technology Center (JAMSTEC). The four subjects were male professional divers who work at JAMSTEC and have previously participated in saturation diving. The study was conducted over a 30-day period from 28 September to 29 October 1984. Sea level values were taken on days 1-5. Compression was extended over days 6 and 7, constant 31 ATA pressure on days 8-13, decompression from day 14 to day 25, and a postdive control period from day 26 to day 30.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The nocturnal diuresis has been reconfirmed, and we have demonstrated that hyperbaria of 31 ATA, equivalent to a 1000 ft depth, completely abolished the ADH circadian rhythm, resulting in an increased free water excretion during the daytime. The reason for the nocturnal diuresis is still unknown. In addition, we have found that the head-up tilt-induced increase in ADH is also abolished, but the renin response is enhanced at hyperbaria coinciding with evidence for cardiovascular deconditioning.


*Dr. Claybaugh's trip to Japan was paid for by the National Oceanographic and Atmospheric Administration, U.S. Department of Commerce.
OBJECTIVE: This is the completion of a three-phase study of the ability of non-Alpine trained and non-athletically trained soldiers to adapt to maximal stress at altitude.

TECHNICAL APPROACH: Thirty subjects were divided into three groups of 10 each. Group 1 did not exercise, but was more extensively tested on psychological measures. Groups 2 and 3 ran two hours per day at high altitude (4,100 M) for five days. Twenty-four hour urine samples were obtained throughout, as well as occasional blood samples. Groups 2 and 3 were distinguished by group 3 receiving carbohydrate supplementation to their MRE diet.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: 30

Most of the data for this experiment has not as yet been analyzed. Early assessments of the data, however, suggest that carbohydrate supplementation may have contributed to better physical performance; that group ran farther. However, in that group, perhaps because of the increased physical exertion or other factors, the most severe casualties occurred, i.e., one case of pulmonary edema and one of cerebral edema. There are also some indications that the carbohydrate group had reduced osmotic excretion favoring a reduced urine flow.
Detail Summary Sheet

Prot No: 51H/85 Status: Ongoing

TITLE: Altitude Sickness in Soldiers at 4200 Meters (Mauna Kea IV)

Principal Investigator: John R. Claybaugh, Ph.D.
Associate Investigators: Y. C. Lin, M.D.; COL Samuel A. Cucinell, MC

Department/Section: Clinical Investigation/Physiology

Key Words: high altitude; exercise; mineralocorticoid supplementation; acetazolamide therapy; lung water; water and electrolyte balance; ophthalmology

Funding: FY 84: NA FY 85: $300. Periodic Review Date: NA
Gifts: USAMRDC grant requested Decision: Approved Sep 85

OBJECTIVE:

(1) Does exercise increase the vulnerability to acute mountain sickness (AMS) and complications? (2) Does acetazolamide (AZ) decrease the vulnerability of exercising soldiers to AMS at altitude? (3) Does AZ protect soldiers from exercise-induced fluid accumulation in the lung at high altitude? (4) Does AZ affect the hormonal responses to exercise and the 24-hour hormonal and water and electrolyte parameters? (5) Does the normally occurring decrease in aldosterone at high altitude have an effect on the occurrence of AMS, accumulation of lung water, and water and electrolyte balances? (6) Does high altitude exposure with no treatment differ from AZ or mineralocorticoid-treated subjects in ophthalmic measurements?

TECHNICAL APPROACH: Twenty-four subjects will be divided into three groups: group 1 = no treatment, group 2 = AZ pretreatment, group 3 = mineralocorticoid treatment. All subjects will run two hours per day at 4,100 M for 7 consecutive days. Twenty-four-hour urine will be collected throughout, as well as occasional pre- and postexercise blood samples.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

In order to conduct this study, additional supplies and temporary personnel are required. Therefore, request for a grant to USMRDC has been submitted. Upon approval, necessary land use clearances and University of Hawaii approvals will be obtained.
Detail Summary Sheet

Prot No: 21H/84  Status: Completed

TITLE: Effects of Altitude and Oxygen Supplementation on High Level Cognitive Performance and Psychomotor Skills

Principal Investigator: CPT Wayne R. Coussens
Associate Investigators: Alvah Bittner, Jr., Ph.D.; David D. Cudaback, Ph.D.; Charles Houston, M.D.; LT CDR Steve Tolan, Ph.D., USN

Department/Section: Clinical Investigation

Key Words: Altitude; cognitive performance; psychological performance

Funding: FY 84: $500. FY 85: $40,000. Periodic Review Date: USAMRDC Decision: Competed

OBJECTIVE: To assess the effects of altitude, pressure, oxygen depletion, and oxygen supplementation on performance of high level cognitive and psychomotor skills in people of various levels of intelligence.

TECHNICAL APPROACH: The study will be conducted in three phases. In the first phase, selection of appropriate tests sensitive to changes in pressure and oxygen will be made. In the second, the high altitude chamber will be used to examine the effects on cognitive performance of oxygen depletion and supplementation, along with pressure changes. The third phase consists of a high altitude field study in which "real life" problems and effects can be assessed. In each study, subjects will be blinded to conditions and will be tested using alternate forms of the same tests in repeated measures type design. Physiological and medical monitoring, video taped observational studies, and motivational analyses will be used throughout the three phases, both as data and as a means of assuring the safety and health of subjects.

PROGRESS: No. of Subjects Enrolled - To Date: 65  Reporting Period: 65

The protocol was funded by the U.S. Army Medical Research and Development Command. Phases I and III of the study were completed as scheduled. Phase II, the altitude chamber study, was not completed due to delays in obtaining access to the Barbers Point Decompression Chamber. Thirty-six subjects were tested in Phase I at sea level and simulated 14,000 and 17,000 foot altitude oxygen levels. In Phase III, 29 subjects and 26 support crew spent six days at 13,400 foot altitude on Mauna Kea, Hawaii. Approximately 200,000 pieces of cognitive, performance, and affective data were obtained in Phases I and II and are now being analyzed. Initial findings should be available within three months.
Prot No: 26/79  
Status: Completed  

TITLE: Determination of Liver Blood Flow and Improved Technique for Sampling Hepatic Vein Blood  

Principal Investigator: COL Samuel A. Cucinell, MC  
Associate Investigators: Gordon H. Bryant  
Department/Section: Department of Clinical Investigation  

Key Words: liver blood flow  
Funding: FY 84: $600. FY 85: $600. Periodic Review Date:  
Gifts: None  Decision: Completed  

OBJECTIVE: The establishment of a method of determining liver blood flow.  
TECHNICAL APPROACH: The major errors in this thermodilution method of determination of hepatic vein blood flow is loss of the thermodiluent by heat exchange in the IVC. By keeping the temperature difference between the thermodiluent and IVC low, this error can be minimized.  
PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA  
Seven pigs were studied this year, with correlation of .85 with simultaneous electromagnetic determination.  

Detail Summary Sheet

Prot No: 38/83
Status: Ongoing

TITLE: The Use of Monoclonal Antibody to a Pseudomonas Ribosomal Protein Antigen for Passive Immunization Against P. aeruginosa

Principal Investigator: MAJ Michael M. Leiberman, MS
Associate Investigators:

Department/Section: Clinical Investigation/Microbiology

Key Words: monoclonal antibody; Pseudomonas aeruginosa

Funding: FY 84: $5,000. FY 85: $1,000. Periodic Review Date: Sep 85
Gifts: None Decision: Continue

OBJECTIVE: To determine whether monoclonal antibody to a Pseudomonas ribosomal protein antigen can protect mice by passive immunization against challenge with P. aeruginosa.

TECHNICAL APPROACH: Monoclonal antibodies are prepared by mixing immune spleen cells and myeloma cells in the presence of polyethylene glycol, resulting in a fusion of the two cell types. The fused cells, termed "hybridomas" since they are a hybrid of two different cells, have the myeloma cell properties of indefinite replication and of synthesizing only one particular immunoglobulin, but the immunoglobulin they synthesize is the antibody produced by the particular spleen cell that was fused. All monoclonal antibody preparations will be tested for antibodies to both protein and LPS antigens, and those preparations showing antibody activity to protein antigen only will be tested for passive mouse protection. Preparation of Pseudomonas ribosomal vaccines and passive mouse protection experiments will be performed as previously described.

PROGRESS: No. of Subjects Enrolled - To Date: Reporting Period:

Hybridomas were produced by fusion of a non-secreting BALB/C murine myeloma cell line with BALB/C immune spleen cells, immunized either in vivo or in vitro with P. aeruginosa ribosomes or outer membrane preparation containing lipopolysaccharide (LPS). Hybridomas secreting antibodies reactive with either ribosomes or outer membranes were cloned and the monoclonal antibodies produced were characterized for antigenic specificity and isotype. Antibodies of three different specificities were found: (1) reactive with purified ribosomes but not with purified LPS, (2) reactive with purified LPS but not with ribosomes, and (3) reactive only with outer membranes. Results of isotyping showed that most antibodies were of the \( \gamma_1 \) or \( \gamma_2b' \) heavy chain and \( \lambda \) light chain subclasses. These antibodies are currently being tested by an in vitro functional assay, as well as for passive mouse protection. To date, several antibodies were shown to be effective in in vitro bacteriocidal or opsonophagocytic assays, but in vivo mouse protection could not be demonstrated.

Ayala E, Lieberman M: Monoclonal Antibodies to a Ribosomal Vaccine from P. aeruginosa. Abstracts of the Annual Meeting of the American Society for Microbiology, St. Louis, March 1984, p. 69.
Detail Summary Sheet

Prot No: 5A/84  Status: Ongoing

TITLE: Cellular Immunity Against P. aeruginosa Derived from Immunization of Mice with a Pseudomonas Ribosomal Vaccine

Principal Investigator: MAJ Michael M. Lieberman, MS
Associate Investigators:

Department/Section: Clinical Investigation/Microbiology

Key Words: cellular immunity; Pseudomonas aeruginosa; ribosomal vaccine

Funding: FY 84: $2,800. FY 85: $2,000. Periodic Review Date: Sep 85

Gifts: None Decision: Continue

OBJECTIVE: (1) To determine whether the immune response to the Pseudomonas ribosomal vaccine includes cellular elements capable of protection upon transfer to nonimmune animals (adoptive immunity). (2) To determine whether vaccinated mice rendered leukopenic are still protected against infection. (3) To assess the importance of complement (specifically C5) to protection in vaccinated mice.

TECHNICAL APPROACH: A. Adoptive Immunity: Mice are immunized with the vaccine (20 per group). Spleens are excised from immunized mice and spleen cell suspensions prepared. (Spleen cell suspensions are also prepared from saline-administered mice.) Graded doses of immune and control spleen cells (from saline-administered mice) are injected (I.P.) into nonimmune mice (10 per group). Three days after injection of spleen cells, the mice are challenged with live cultures of P. aeruginosa. Challenged mice are scored for survival. Groups of mice receiving immune or control cells are compared.

B. Challenge of immune leukopenic mice: Mice are immunized with the vaccine (10 per group). Cyclophosphamide is administered to both immune and control mice, 5 days, 3 days, and 1 day prior to challenge. (Peripheral blood leukocyte counts will be made.) Mice are then challenged with live culture of P. aeruginosa. Challenged mice are scored for survival, comparing immune and control leukopenic mice. In addition, mice that were immunized but not rendered leukopenic, as well as nonimmune (control), nonleukopenic mice will be challenged as above. Thus, the efficacy of the vaccine in nonleukopenic mice will be compared to that in leukopenic mice.

C. Challenge of immune, C5 deficient mice. Mice that have a genetic defect resulting in a deficiency in complement (C5), as well as control mice, will be used in vaccination and challenge experiments as described above.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

A. Adoptive immunity experiments have shown a limited degree of cellular immunity. While statistically significant in some cases, the degree of protection achieved is not nearly as great as previously found for humoral immunity. B. The results obtained with leukopenic mice demonstrated that the vaccine is even more protective in leukopenic mice than in nonleukopenic mice. This result again indicates the importance of humoral immunity because the humoral function is highlighted as the cellular functions are depressed in leukopenia. C. Complement (C5) deficient mice are protected by the vaccine
equally as well as normal (C5 sufficient) mice, indicating that the complement membrane attack complex (C5b-C9) is not necessary for immune protection.


OBJECTIVE: To determine the nature of any humoral and/or cellular immune responses to heated Moloney virus (murine leukemia virus)-induced YAC (MULv-YAC) lymphoma cells.

TECHNICAL APPROACH: Viable (non-heated) YAC lymphoma cells are highly tumorigenic and cause death in animals inoculated with these cells. The experiments to be performed are designed to answer the following questions: (a) Can the administration of heated (44°C, 25 min) tumor cells to mice "immunize" the animals against subsequent administration of non-heated cells ("active immunity")? (b) Can serum taken from mice given heated tumor cells transfer protection to mice that have not received heated cells, but subsequently are given non-heated cells ("passive immunity")? (c) Can spleen cells taken from mice given heated tumor cells transfer protection to mice that have not received heated cells, but subsequently are given non-heated cells ("adoptive immunity")?

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

This protocol has been terminated due to lack of sufficient support, primarily for the care and maintenance of the animals (caging equipment and caretaker support) and laboratory technician support.
Detail Summary Sheet

Prot No: 34A/85  Status: Ongoing

TITLE: Animal Usage for Phase I Clinical Trial of a Pseudomonas aeruginosa Ribosomal Vaccine (reference protocol 29H/85)

Principal Investigator: MAJ Michael M. Lieberman, MS
Associate Investigators: Sanford Berman, Ph.D.; COL Joel Brown, MC

Department/Section: Clinical Investigation/Microbiology

Key Words: Pseudomonas aeruginosa; ribosomal vaccine; clinical trial

Funding: FY 84: NA  FY 85: $1,000.  Periodic Review Date: Sep 85  Decision: Continue

OBJECTIVE: (1) Potency testing of vaccines to be used in the clinical trial; (2) testing of the sera collected from vaccinated volunteers for passive mouse protection.

TECHNICAL APPROACH: (1) Potency testing of vaccines to be used in the clinical trial was performed by active and passive immunization of mice followed by challenge with live P. aeruginosa. (2) Testing of the sera collected from vaccinated volunteers will be performed by passive immunization of mice followed by challenge with live P. aeruginosa.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

Potency testing of the vaccine has been completed. The vaccine passed the required active and passive potency tests (as well as the required safety tests as stipulated by the FDA). The vaccine is now ready for use in the clinical trial.
OBJECTIVE: To determine where in the nephron the metabolite of vasopressin appears and by what mechanism.

TECHNICAL APPROACH: The stop-flow technique is being used in pigs to assess how and where along the nephron a metabolite of vasopressin is formed. In an anesthetized pig, one kidney is exposed and the ureter is catheterized. A rapid diuresis is induced by infusing the pig with mannitol. The uretal catheter is clamped for 8 minutes and urine flow into the kidney ceases almost immediately because of the rapid increase in back pressure of the urine. During the 8 minutes of stopped flow, each specific tubular segment of the nephron acts maximally on its tubular fluid. The clamp is then released and the whole column of tubular fluid is pushed out almost intact. The urine is collected in 1 ml fractions; the initial fractions represent the most distal segments of the nephron, and the last fractions collected represent the proximal tubule and new filtrate. Specific substances are infused into the pig and can be used as markers of the specific tubular segments and functions. Creatinine is used as a marker for new filtrate; para-amino hippuric acid is used as a marker for the proximal tubule; sodium and potassium concentrations are used as markers for the distal tubule. Inulin is used as a marker for the extent of water reabsorption. By comparing whether the concentration of a substance is greater or less than the concentration of inulin, one can determine whether the substance was secreted or reabsorbed by the nephron.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Six pigs have been studied. The results showed that vasopressin is reabsorbed and/or degraded in the proximal tubule. There appears to be no secretion of vasopressin into the distal tubule.

The results were presented at The Vasopressin Conference at Aspen, Colorado on August 29, 1984. A manuscript is in preparation.

*During this study, Dr. Sondeen was a postdoctoral student, University of Hawaii.
Detail Summary Sheet

Prot No: 22A/84 Status: Completed

TITLE: Effect of Cortisol on the Renal Handling of Vasopressin Using the Stop-Flow Technique in Pigs

Principal Investigator: Jill L. Sondeen, Ph.D.
Associate Investigators: John R. Claybaugh, Ph.D.; Aileen K. Sato; CPT William S. Stokes, VC

Department/Section: Clinical Investigation/Physiology

Key Words: Vasopressin; stop-flow technique

Funding: FY 84: $1200. FY 85: $1000. Periodic Review Date: Gifts: * Decision: Completed

OBJECTIVE: To determine whether cortisol can alter the renal handling of vasopressin.

TECHNICAL APPROACH: The stop-flow technique was used in pigs to assess how and where along the nephron, cortisol and/or aldosterone may be affecting the handling of vasopressin. An adrenalectomy was performed so that the plasma levels of cortisol and aldosterone could be experimentally controlled. One stop-flow procedure was performed under control conditions. The corticosteroid was infused for 90 minutes and then another stop-flow procedure was performed. In an anesthetized pig, one kidney was exposed and the ureter was catheterized. A rapid diuresis was induced by infusing the pig with mannitol. The ureteral catheter was clamped for 8 minutes and urine flow into the kidney ceased almost immediately because of the rapid increase in back pressure of the urine. During the 8 minutes of stopped flow, each specific tubular segment of the nephron acts maximally on its tubular fluid. The clamp was then released and the whole column of tubular fluid was pushed out almost intact. The urine was collected in 1 ml fractions; the initial fractions represent the most distal segments of the nephron, and the last fractions collected represent the proximal tubule and new filtrate. Specific substances were infused into the pig and could be used as markers of the specific tubular segments and functions.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

A total of 21 pigs were studied. Six pigs were studied without adrenalectomies but their cortisol levels were not controlled during the course of the experiment due to endogenous secretion. Fifteen pigs were studied after acute adrenalectomies were performed. Seven pigs were given cortisol, four were given aldosterone, and four were time controls. There was no difference in the handling of vasopressin by the nephron between any of the groups. We conclude that neither cortisol nor aldosterone acutely affect the renal handling of vasopressin.

Presented at the Federation of American Societies for Experimental Biology in April 1985, Anaheim, CA. A manuscript is in preparation.

*During this study, Dr. Sondeen was a postdoctoral student at the University of Hawaii.
The Hormonal Control of Amniotic Fluid Volume

Catherine F. T. Uyehara
John R. Claybaugh, Ph.D.

Clinical Investigation/Physiology

amniotic fluid; vasopressin; vasotocin; osmolality

FY 84: $3,000. FY 85: $1,000. Periodic Review Date: Sep 85

Ongoing

To assess the endocrine regulation of amniotic fluid (AF) volume and composition during the 2d and 3d trimesters of gestation. To (1) document the levels of vasopressin (ADH), prolactin (PRL), cortisol (CORT), and aldosterone (ALDO) throughout gestation; (2) determine whether there is a correlation between AF osmolality and ADH/PRL/CORT/ALDO concentration; (3) determine whether there is a correlation between AF volume and ADH/PRL/CORT/ALDO levels.

Laparotomy is performed under anesthesia with 2-4% Halothane gas at 3-4 L O2/min. The uterine horn is exposed and samples are collected from each fetus via a 26G 1/2" needle inserted thru both the uterine wall and the amnion. Samples are immediately put on ice. After all fetuses are sampled, the abdominal incision is sutured closed and the mother is allowed to recover. Baseline study: AF from fetuses during the !d and 3d trimesters of gestation were obtained for baseline values. The samples were analyzed for osmolality, Na, K, CORT, VP, and VT. (We were unable to measure guinea pig PRL and ALDO levels with the assay kits available.) Hormone levels are obtained by radioimmunoassay of unextracted samples. In vivo AF volume experiments: Four guinea pigs in the 3d trimester were used to set up experiments in which the effect of VP and VT on AF osmolality and volume can be studied. An initial sample of AF is immediately replaced with inulin in artificial amniotic saline which is mixed in with the remaining AF. A second sample is then obtained for inulin measurements used to estimate AF volume. Either a control of normal rabbit serum, VP and VT standard, or antisera to VP and VT is injected. After one hour, a final sample is taken.

Baseline study results were presented at the 1985 FASEB meetings at Los Angeles, CA on 22 April 1985.
<table>
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<tr>
<th>Prot No: 41H/85</th>
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<tbody>
<tr>
<td>TITLE: Comparison of Sublimaze Citrate in Intravenous Conscious Sedation for Outpatient Oral Surgery</td>
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<td>Principal Investigator: COL Richard A. Kraut, DC</td>
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<td>Associate Investigators:</td>
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<td>Department/Section: Dentistry/Oral Surgery</td>
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<tr>
<td>Key Words: Oral surgery; conscious sedation</td>
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<tr>
<td>Funding: FY 84: NA FY 85: $300. Periodic Review Date: Sep 85</td>
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<td>Gifts: None Decision: Continue</td>
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**OBJECTIVE:** To compare the blood pressure, pulse, respiratory rate, PtcO2 and PtcCO2 in patients sedated with sublimaze versus sufentanil citrate for surgical removal of impacted wisdom teeth.

**TECHNICAL APPROACH:** Fifty consecutive volunteer ASA I patients who present to the Oral Surgery Clinical requiring removal of at least one maxillary and one mandibular impacted wisdom tooth and who request intravenous sedation will constitute the study group. Twenty-five patients will be randomly selected for each of the two study groups. Management will be the same for the two groups except that Group A patients will be sedated with sublimaze and diazepam. Group B patients will be given sufentanil citrate. Descriptive statistical analysis of blood pressure, pulse, respiratory rate, PtcO2 and PtcCO2 will be carried out.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Project was delayed in starting due to difficulty in obtaining Sufentanil. Sufentanil will be made available in November and the project will begin at that time.
Detail Summary Sheet

Prot No: 28R/85 Status: Completed

TITLE: Body Fat Estimation by Calibration in 1963 Individuals: Report of Initial Screening Per AR 600-9

Principal Investigator: CPT Todd R. Chace, MC
Associate Investigators: CPT Wiley A. Smith, MC; CPT Scott S. Ekdahl, MC

Department/Section: Family Practice

Key Words: Anthropometrics; obesity; body composition; screening

Funding: FY 84: NA FY 85: $500. Periodic Review Date: None Decision: Completed

OBJECTIVE: (1) To retrospectively study 1,963 U.S. Army service members referred for anthropometric testing in Hawaii per AR 600-9 according to sex, age, weight, rank, percent body fat, and number of individuals over their maximum allowable weight; (2) to develop a microcomputer program to evaluate anthropometric data generated per AR 600-9; (3) to demonstrate a practical method of screening large groups for obesity.

TECHNICAL APPROACH: Subjects: The results of screening anthropometrics for 1,963 individuals will be analyzed including active duty U.S. Army men and women from Hawaii and other Pacific stations. Skinfold Thickness (SFT): SFTs were measured to the nearest 0.5 mm from four sites on all subjects; at the biceps, triceps, subscapular, and suprailiac areas on the right side of the body. The Lange (R) caliper (Cambridge Sci Industries, Inc., Cambridge, Maryland, USA) were used; each caliper was checked for accuracy with aluminum calibration block prior to each day’s use. Measurements were made at each site in sequence with the sequence repeated three times. In the case of an obvious outlying value, one repeat determination was made. The total of the average SFT was then used to enter the tables generated by Durnin and Womersley giving the percent body fat.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Data has been summarized, final drafts are being edited and will be submitted for publication.

OBJECTIVE: To evaluate the safety and efficacy of the Model P7505 HomePro® Volumetric Infusion Pump.

TECHNICAL APPROACH: A questionnaire study to evaluate usefulness and safety of programmable pump for home total parenteral nutrition.

PROGRESS: No. of Subjects Enrolled - To Date: 1  Reporting Period: 1

Completed after six months with good results. Patient was satisfied with safety, yet frustrated at her inability to program the pump herself.

* Loan of Model P7505 HomePro® Volumetric Infusion Pump from American ContinueCare on a Bailment agreement. Device has been returned.
Detail Summary Sheet

Prot No: 2H/85 Status: Terminated

TITLE: DPT Reaction Rates as a Function of Dose

Principal Investigator: CPT Jeffrey Verzella, MC

Associate Investigators:

Department/Section: Family Practice

Key Words:
DPT reaction

Funding: FY 84: NA FY 85: $300. Periodic Review Date: Feb 85

Gifts: None Decision: Terminate

OBJECTIVE: To compare the frequency of adverse effects from our routine DPT immunizations (0.5cc) with those from a modified DPT dose (0.25cc).

TECHNICAL APPROACH: Children, ages 6-8 weeks, 4, 6, and 18 months, and 4-6 years receiving their DPT immunizations will be placed in one of two groups to undergo a double-blind trial, receiving either a standard 0.5cc or modified 0.25cc dose.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol has been terminated because of information received from COL Bass that the American College of Pediatrics has determined that the half-dose of DPT vaccine is inadequate.
**Detail Summary Sheet**

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<th>Prot No:</th>
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<tr>
<td><strong>TITLE:</strong></td>
<td>Phase I Clinical Trial of a <em>Pseudomonas aeruginosa</em> Ribosomal Vaccine</td>
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<tr>
<td>Principal Investigator:</td>
<td>COL Joel Brown, MC</td>
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<td>Associate Investigators:</td>
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<td>Department/Section:</td>
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<tr>
<td><strong>Key Words:</strong></td>
<td>clinical trial; <em>Pseudomonas aeruginosa</em>; ribosomal vaccine</td>
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</table>
| **Funding:** | FY 84: NA  
| Reporting Period: | 0 |
| Periodic Review Date: | 0 |
| Decision: | To be reviewed in May 86 |

**OBJECTIVE:** To assess the safety and immunogenicity of *Pseudomonas aeruginosa* ribosomal vaccines in human volunteers.

**TECHNICAL APPROACH:** Volunteers will be immunized with the *P. aeruginosa* ribosomal vaccine. At specified times subsequent to vaccination, blood will be drawn and the specific antibody titer of the immune serum will be determined by passive protection of mice (i.e., administration of the immune serum to mice followed by challenge of the mice with live *P. aeruginosa*.)

**PROGRESS:** No. of Subjects Enrolled - To Date: 0  
Reporting Period: 0

The vaccine to be used in the clinical trial has been prepared at Walter Reed Army Institute of Research. All required quality assurance, safety, and potency tests have been satisfactorily completed. An IND submission to the FDA is in preparation. The protocol will be initiated upon approval by the FDA.
Detail Summary Sheet

Prot No: 1H/85  Status: Ongoing
TITLE: Creatine Phosphokinase with Exercise: An Ethnic Study
Principal Investigator: CPT Michael D. Carethers, MC
Associate Investigators: COL Samuel A. Cucinell, MC
Department/Section: Medicine
Key Words: exercise; creatine phosphokinase; racial differences
Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: Sep 85
Gifts: None  Decision: Continue

OBJECTIVE: To determine if the elevated creatine phosphokinase (CPK) and myoglobin, which are elevated in black soldiers post-exercise, are present in all black men and women and to determine the kinetics of the serum levels.

TECHNICAL APPROACH: All volunteers will avoid all training and competition for four days prior to the run. Blood and urine specimens will be taken at the times indicated on the flow sheet. On the day of the test, a marathon (26.6 miles) at the best pace possible will generate CPK elevations. The determinations indicated on the flow sheet will be used to determine the degree of renal and muscular involvement in the exercise. Student 't' test between groups will be used to compare significance.

PROGRESS: No. of Subjects Enrolled - To Date: 22  Reporting Period: 22

A complete literature search has established that CPK elevation does occur in blacks compared to whites and it is not related to glucose-6-phosphate. Three blacks and 21 white active duty runners were studied in the peak 1985 Honolulu marathon. Only one black male had CPK of over 8000, while the average for the white volunteers was 2500. The other two black men had a CPK pattern identical to that of the whites. The kinetics of the curve of the CPK elevation were identical. It appears that not all black men have the super-elevated CPK postexercise. (Of the nine blacks in all our exercise studies, six have shown the phenomena and three have not. Of the 50 whites studied, two men had super-elevated CPK). It may be concluded that some blacks appear to have a threefold greater CPK released from their muscle post-endurance run. About two-thirds of blacks have this phenomena and 1/25 of whites.
Detail Summary Sheet

Prot No: 24/83  Status: Completed

TITLE: Evolution of House Dust Mite Sensitivity and Home Colonization in Newly Arrived Military Personnel to Hawaii

Principal Investigator: LTC Gary B. Carpenter, MC
Associate Investigators: Douglas G. Massey, MD; Doug Win, MS

Department/Section: Medicine/Allergy

Key Words:
House dust mite; air conditioning

Funding: FY 84: $3000. FY 85: $300. Periodic Review Date: Gifts: * Decision: Completed

OBJECTIVE: To investigate the rate and extent of colonization of newly arrived military households with Dermatophagoides pteronyssinus (Dp) and the rate and extent of allergic sensitization to Dp in patients already allergic to D. farinae (Df) in these households in a controlled study. To assess the effect of central air conditioning on mite density and mite species in military households.

TECHNICAL APPROACH: This project was changed in order to include a controlled study of the effect of central air conditioning on mite populations and species in military homes. Skin testing to both Df and Dp was done on 100 patients to assess military sensitization to these two mite species.

PROGRESS: No. of Subjects Enrolled - To Date: 100  Reporting Period: 0

The original goal to assess house dust mite sensitivity in newly arrived military personnel to Hawaii had to be changed because of withdrawal of initial FDA approval of Center Dp and Df extracts for skin testing. Before withdrawal of approval, 100 patients were skin tested. The study of the effect of air conditioning on house dust mite density and species is complete and clearly shows that air conditioning has a major effect on both of these parameters. As of April 1985, sampling was completed. Mite isolation and identification is nearly completed. The data collected is enough for two major papers. In addition, data on two homes, over one-year period, was collected. This data will be the basis of a second paper entitled "Seasonal Variations in Mite Density in Hawaii. This data has not yet been analyzed although mite speciation is nearly complete. All samples have been obtained.

The data on house dust mite density and air conditioning was presented at the Association of Military Allergists in Jan 85 at Fitzsimmons Army Medical Center and was also presented as a poster session at the American Academy of Allergy and Immunology in New York in Mar 85.

Published in abstract form, J Allergy Clin Immunol, January 1985. A manuscript is in preparation for submission to the J Allergy Clin Immunol.

*Associate Investigators are with the Research Department of Kuakini Medical Center, Honolulu, Hawaii and University of Hawaii.

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**Detail Summary Sheet**

<table>
<thead>
<tr>
<th>Prot No: 40/83</th>
<th>Status: Terminated</th>
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<tbody>
<tr>
<td><strong>TITLE:</strong> Double-Blind Comparison of Alum-Precipitated House Dust Mite Therapy in the Treatment of Allergic Asthma and Rhinitis</td>
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<tr>
<td><strong>Principal Investigator:</strong> LTC Gary B. Carpenter, MC</td>
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<td><strong>Associate Investigators:</strong></td>
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<td><strong>Department/Section:</strong> Medicine/Allergy</td>
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<td><strong>Key Words:</strong> house dust mite</td>
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<td><strong>Funding:</strong> FY 84: $300. FY 85: $300.</td>
<td><strong>Periodic Review Date:</strong></td>
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<tr>
<td><strong>Gifts:</strong> None</td>
<td><strong>Decision:</strong> Terminated</td>
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</table>

**OBJECTIVE:** To compare allergy immunotherapy with alum-precipitated extracts of *Dermatophagoides pteronyssinus* (Dp) and/or *D. farinae* (Df) in a double-blind placebo controlled study in patients with house dust mite allergy.

**TECHNICAL APPROACH:** Sixty patients with house dust mite allergy with significant rhinitis with or without asthma will be studied for a minimum of 6 months each. Once they volunteer, they will receive end point titration skin tests (either intradermal or prick) to *D. farinae* and *D. pteronyssinus*. They will be allocated to four groups by a double-blind stratified randomization procedure performed by the Pharmacy Service, TAMC. Patients will keep a symptom and medication score sheet of asthma and rhinitis symptoms and medications used for the week before their monthly visit to the clinic. All patients will have their mattresses and bedroom and living room floors sampled for house dust mite.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No progress has been made on this protocol because the FDA has still not approved either the Center alum-precipitated extracts that would be used for therapy or the Center aqueous D. pteronyssinus extracts for skin testing. Center Laboratories is still trying to get FDA approval. This protocol has been terminated and a new protocol will be submitted at a later date if FDA approval is received.
Detail Summary Sheet

Prot No: 19H/84  Status: Ongoing

TITLE: Treatment of Graves' Ophthalmopathy with Cyclosporin

Principal Investigator: MAJ J. Craig Holland, MC
Associate Investigators: COL Leonard Wartofsky, MC

Department/Section: Medicine/Endocrine-Metabolic

Key Words: Graves' ophthalmopathy

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 85
Gifts: None Decision: Continue

OBJECTIVE: To assess the efficacy of Cyclosporin treatment on the ophthalmopathy of Graves' disease.

TECHNICAL APPROACH: This is a random crossover study comparing Cyclosporin therapy of Graves' ophthalmopathy versus the standard of current therapy, high-dose oral Prednisone. Because of potential toxicity, this is not a double-blind study. The drugs will be administered for three weeks each, and then the patient will be crossed over with clinical response measured by an ophthalmopathy index. There will be a pretherapy clinical assessment and the usual laboratory testing pre-, post-, and during therapy.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This is an Army-wide study utilizing all Army Medical Centers. The initial application was approved at Walter Reed Army Medical Center in February 1984. The study's initial progress was completely halted because the Food and Drug Administration and Sandoz Pharmaceuticals were having problems with Cyclosporin protocols that did not deal specifically with organ transplants. By 15 October 1984, this administrative issue had been resolved, an IND number has been issued, and the protocol essentially was started up again at this point. No patients from TAMC have been enrolled to date.
TITLE: Levels of Retinoic Acid Binding Protein in the Four Major Histologic Types of Human Lung Cancer

Principal Investigator: Maj William J. Uphouse, MC

Associate Investigators: 

Department/Section: Medicine/Hematology-Oncology

Key Words: lung cancer

Funding: FY 84: $300. FY 85: $300.

Periodic Review Date: Decision: Completed

OBJECTIVE: To determine the levels of a particular binding protein in the four major types of human lung cancer.

TECHNICAL APPROACH: When excess lung tumor tissue is available from thoracotomy, a 1-gram piece will be frozen and transported to the Cancer Center of Hawaii where the assay for the binding protein will be done.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Two tumor specimens (lung cancer) were assayed. This technology has been superseded. Project is considered completed.

*Supplies for this assay were gratis, value unknown.
TITLE: Pregnancy Outcome as a Function of Mild Exercise or No Exercise During Pregnancy in Active Duty Military Women

Principal Investigator: MAJ Deborah A. Bopp, ANC
Associate Investigators: Nursing (Obstetrics and Gynecology)

Key Words: Exercise; pregnancy

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: May 85

OBJECTIVE: To compare the effects of a required mild exercise program to exercise profile during pregnancy on the course of and complications of postpartum recovery.

TECHNICAL APPROACH: One hundred and six pregnant active duty women from the OB clinic at Tripler Army Medical Center were compared for pregnancy outcome. Forty-six of these women were part of a Maternity Physical Training (MPT) program at Schofield Barracks. Another 60 active duty soldiers not assigned to Schofield Barracks were not involved in any organized physical training program and served as a control group.

PROGRESS: No. of Subjects Enrolled - To Date: 106 Reporting Period: 0

No adverse effects to a special MPT program could be identified. It would appear that the pregnant soldier could continue a fitness program tailored to her pregnant condition and prepregnancy fitness status. In fact, it could well be beneficial since the study group was noted to have a decreased incidence of preterm delivery, pregnancy induced glucose intolerance, and prolonged second stage, although the reduction did not achieve high statistical significance. The MPT program was well tolerated by all study soldiers. The pregnant soldiers participated in the MPT program up until the 32nd week of gestation. Due to the changes in gravity center and possible loss of balance after 32 weeks gestation, a different program needs to be designed and tested if pregnant soldiers are to participate in organized PT past their 32nd week.

A manuscript was submitted to the Association of Military Surgeons for consideration for the 1985 Federal Nursing Service award.
Detail Summary Sheet

Prot No: 37H/85
Status: Ongoing

TITLE: Nutritional Support of the Hospitalized Patient: A Comparison Between Continuous and Intermittent Administration of Enteral Tube Feedings

Principal Investigator: MAJ Linda T. Dunn, AN
Associate Investigators: ILT Leslie R. Kalbach, AN

Department/Section: Nursing

Key Words: enteral tube feeding, continuous and intermittent administration

Funding: FY 84: NA FY 85: $2,489.
Periodic Review Date: Decision: To be reviewed in May 86

OBJECTIVE: To ascertain which mode of tube feeding administration, intermittent or continuous, is optimal for the hospitalized patient in regard to maximizing the benefits of nutritional support and minimizing adverse reactions.

TECHNICAL APPROACH: Subjects for the study are selected from a surgical ward population of patients and must meet the criteria of being unable or unwilling to consume caloric needs by p.o. intake alone. Patients from both the otorhinolaryngology and neurosurgical services are considered and entered into the study if enteral tube feeding nutritional support is indicated, and patients are randomly assigned to either mode of administration. After one week of the initial mode of administration, the patient is changed to the alternate mode for another week. Data is collected by nursing staff responsible for the care of the patient per intake and output worksheets and study-specific data sheets. If patients demonstrate a desire to eat, they must be eliminated from the study.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

To date, no patients have qualified for enrollment in the study. Because of the limited number of candidates from the surgical ward, the investigators have decided to pursue study of patients in another ward setting once inservice is complete.
Detail Summary Sheet

prot No: 16H/85  Status: Terminated

TITLE: Detection of Fetal-Maternal Hemorrhage by Alpha-feto-protein During Exercise

Principal Investigator: LTC Fred H. Coleman, MC
Associate Investigators:

Department/Section: Obstetrics and Gynecology/Obstetrics

Key Words: fetal-maternal hemorrhage

Funding: FY 84: FY 85: $300. Periodic Review Date:
Gifts: None Decision: To be reviewed in Feb 86

OBJECTIVE: To test for possible fetal-maternal hemorrhage (FMH) during exercises performed at various times throughout the course of pregnancy.

TECHNICAL APPROACH: Two hundred volunteers from the pregnant women enrolled in the clinic will have pre-exercise and 10-minute postexercise blood samples drawn. The exercise will consist of a 30-minute run at their own pace on a measured course. The run will be done at 16, 28, and 36 weeks of pregnancy. The serum will be centrifuged and frozen; smears will be made and processed for Kleihauer-Betke readings. These samples will be drawn before and after each run to determine any difference in permeability. Results will then be tabulated and examined for statistical significance with standard techniques. All patients enrolled will be normal. If problems develop during the pregnancy, the patient will be removed from the study. In order to prevent any bleeding from causing sensitization, only Rh positive mothers will be entered into the study.

PROGRESS: No. of Subjects Enrolled - To Date: 20  Reporting Period: 20

Twenty patients have been enrolled in the study. No subjects have participated in an actual exercise period. The project has been terminated due to departure of the principal investigator.
Detail Summary Sheet

Prot No: 6A/84  Status: Terminated

TITLE: Investigation of Factors Affecting Implantation of in vitro Fertilized Mouse Embryos

Principal Investigator: MAJ Steven T. Dodge, MC
Associate Investigators:
Department/Section: Obstetrics and Gynecology/Reproductive Endocrinology

Key Words:

Funding: FY 84: $500. FY 85: 0  Periodic Review Date:
Gifts: None  Decision: Terminated

OBJECTIVE: To determine the optimal conditions for successful implantation of in vitro fertilized mouse embryos.

TECHNICAL APPROACH: The protocol has been modified so that initial stages will be with in vivo fertilized mouse embryos. Blastocyst mouse embryos will be transferred from donor to recipient females by a nonsurgical transcervical approach. Initially, the effect of superovulation of recipients on implantation rates will be studied. Later, the effects of hormones and other additives to culture media can be studied.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

This project has been terminated. Staff shortages and resultant increasing clinical and resident training demands have made it impossible for the investigator to continue.
Detail Summary Sheet

Prot No: 11H/85  Status: Terminated

TITLE: Evaluation of In Utero Fertilization as a Treatment for Infertility Caused by Severe Tubal Disease

Principal Investigator: MAJ Steven T. Dodge, MC
Associate Investigators: COL Kunia Miyazawa, MC

Department/Section: Obstetrics and Gynecology/Reproductive Endocrinology

Key Words: In utero fertilization; infertility

Funding: FY 84: NA  FY 85: $300.
Gifts: None  Decision: Termination

OBJECTIVE: To verify that viable pregnancies can be achieved in infertile patients with absent or irreparable uterine (Fallopian) tubes following the direct placement of spermatozoa and oocytes into the uterine cavity.

TECHNICAL APPROACH: In this project we will attempt to verify that viable pregnancies can be achieved in patients with nonfunctional uterine tubes by the aspiration of mature oocytes from the ovaries and subsequent placement of those oocytes into the uterus to allow in utero fertilization and, later, implantation to occur. The protocol is also designed to determine if the 6-hour in vitro oocyte incubation described by Craft et al is really necessary.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

This study was never begun because final approval and funding were never received. If, as seems likely, TAMC's in vitro fertilization treatment program is approved, this study will be outmoded and no longer feasible for ethical reasons.
**Detail Summary Sheet**

**Prot No:** 20H/84  
**Status:** Ongoing

**TITLE:** Assessment of Prolactin, Vasopressin, Cortisol, and Aldosterone in Amniotic Fluid of Human Fetuses During Gestation

**Principal Investigator:** MAJ Bharat Shah, MC  
**Associate Investigators:** John R. Claybaugh, Ph.D.; Catherine Uyehara; Aileen K. Sato; Bea Reeves

**Department/Section:** Obstetrics and Gynecology

**Key Words:** vasopressin; vasotocin; aldosterone; cortisol; prolactin; amniotic fluid; osmolality; human gestational age

**Funding:** FY 84: $1,000. FY 85: $1,000.  
**Periodic Review Date:** Sep 85

**Gifts:** None  
**Decision:** Continue

**OBJECTIVE:** To correlate amniotic fluid osmolality, prolactin (PRL), vasopressin (ADH), cortisol (CORT), and aldosterone (ALDO) with age of gestation in the normal human fetus and to measure these hormones in conditions of abnormal amniotic fluid volume to determine if there is a possible underlying hormonal basis to the malfunction.

**TECHNICAL APPROACH:** The fetus has been shown to produce vasotocin in lower mammals. We began with the working hypothesis that vasotocin would be in measurable quantities in the amniotic fluid. The Physiology Service has developed an antisera to vasopressin that cross-reacts with vasotocin almost 100%, and other antisera that do not cross-react. Vasotocin concentration can then be determined by subtraction when these antisera are employed in radioimmunoassay. Other assays are ongoing in the Physiology Service. Amniotic fluid will be collected at two times. Both amniocenteses are a result of the necessity of other tests, i.e., assessment of genetic abnormalities (14-17 weeks) and fetal lung maturity (33-40 weeks). In addition, term amniotic fluid will be collected in conditions of polyhydramnios and oligohydramnios.

**PROGRESS:** No. of Subjects Enrolled - To Date: 43  
**Reporting Period:** 26

Forty specimens (13 early gestation, 23 late gestation, 4 polyhydramnios) have been collected and analyzed to date. Prolactin, aldosterone, and cortisol all increase, and osmolality and Na+ decrease, with gestational age as previously shown by others. We have been able to measure vasotocin and vasopressin in unextracted samples, and have attempted to chemically verify the identity of vasopressin and vasotocin by HPLC, but have not yet been successful in separating distinct fractions. We are currently experimenting with different HPLC columns and buffers. Since the start of our study, another laboratory has published vasopressin and vasotocin baseline levels at the two different stages of gestation which are similar to our findings. (It appears that vasopressin levels are constant and vasotocin levels decrease.) However, we may still be able to determine whether there is a relationship between PRL, ADH, CORT, or ALDO levels and the conditions of polyhydramnios and oligohydramnios, which no one else has yet done. We need more samples from early gestation fetuses, and polyhydramnios and oligohydramnios cases. MAJ Shah is no longer assigned to Tripler and the new principal investigator is CPT Mario Colavita.
TITLE: Randomized Clinical Trial of Perioperative Cefadyl vs Mandol Irrigation in Preventing Maternal Endomyometritis After Cesarean Section

Principal Investigator: CPT Ashmed Vazquez, MC
Associate Investigators: MAJ Robert S. Pumphrey, MC; COL Kunio Miyazawa, MC
Department/Section: Obstetrics and Gynecology
Key Words: endomyometritis; cesarean section

Funding: FY 84: NA FY 85: $300.
Gifts: None
Decision: To be reviewed in May 86

OBJECTIVE: To demonstrate the clinical and cost effectiveness of parenteral Cefadyl over Mandol irrigation as antibiotic prophylaxis in the prevention of postoperative endomyometritis in patients undergoing cesarean section.

TECHNICAL APPROACH: Patients will be randomized in a double-blind fashion. The surgery will be performed by the intern/resident/staff physicians on call. Postoperative evaluation and examination will be performed by the physicians assigned to the postpartum service. All antibiotic packet formulations will be prepared by the inpatient hospital pharmacy with supplies being maintained in the operating room and labor and delivery. Patients who develop an allergic reaction to either antibiotic will be excluded from the study. The following parameters will be compared: age, parity, duration of membrane rupture, number of pelvic examinations, type and duration of monitoring, indication for surgery, type of skin incision, type of uterine incision, estimated blood loss at operation, duration of operation, number of postoperative days in the hospital, and incidence of endomyometritis.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Project was delayed because of the necessity of having a consent form approved by the Human Use Committee. This has been done and project should proceed as planned.
PROGRESS:

There has been no activity on this protocol in the past year. These procedures will be done as needed in the future. The protocol is terminated.
Objective: In uncontrolled studies involving 70 patients in Japan, high dose (400 mg/kg/day) intravenous gamma globulin administered early in illness for 2-4 days has been reported to decrease the frequency of coronary aneurysms from approximately 20% (historical controls) to 3%. Because of severe methodologic flaws in Japanese studies, we propose a multicenter cooperative controlled trial of the possible benefits of this therapy.

Technical Approach: Children with Kawasaki Syndrome will be recruited into the study within the first 10 days of illness. After ascertainment of diagnosis, children will be randomized to receive I.V. gamma globulin or serve as controls without infusion. Follow-up will consist of repeated history and physical examinations, repeated echocardiograms and laboratory tests of hematology, liver and kidney function, coagulation, and immunology at entry, day 15, day 30, day 90, and one year after onset. Echocardiograms will be evaluated blindly by a committee of cardiologists from all participating centers. Angiograms will be performed on all patients with evidence of coronary aneurysms by echocardiogram or other tests.

Progress: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This is a cooperative study with Dr. Marian Melish of the Department of Pediatrics at the University of Hawaii School of Medicine. No patient has thus far been entered into this study because no patient with Kawasaki disease has been admitted to Tripler Pediatrics since the protocol was accepted. The investigators would like to continue the study for an estimated one-year period.
OBJECTIVE: To determine the immunization status of dependent children in the Schofield Barracks area by reviewing immunization records and to establish the causes for immunization delays (if any exist).

TECHNICAL APPROACH: Shot record review of families (138) randomly selected from 25th Alpha Roster.

PROGRESS: No. of Subjects Enrolled - To Date: 110  Reporting Period: 110

Study is now 75 percent complete and ongoing.
OBJECTIVE: To determine the acid burden from D-lactate in infants with necrotizing enterocolitis (NEC).

TECHNICAL APPROACH: A previous study showed a substantial increase in urinary D-lactate (uDL)/creatinine ratio in infants with NEC as compared to themselves before disease and after recovery, and compared to healthy and high risk infants without NEC. In this study we will study D-lactate (DL) metabolism in six infants with NEC. All patients will undergo diagnostic work-up and management in accordance with currently accepted standards of neonatal intensive care. Urine will be collected and analyzed for DL, creatinine, pH, titratable acid (TA) and osmolality from the onset of illness until recovery. Daily blood studies will include electrolytes, creatinine, DL, pH, pCO₂. The following will be calculated: creatinine clearance, DL clearance, DL fractional excretion, base deficit and anion gap. Correlations will be made between uDL versus serum DL (sDL); fractional excretion of DL versus shock (blood pressure), acidosis and pharmacology agents; uDL versus TA and urine pH; base deficit versus sDL.

PROGRESS: No. of Subjects Enrolled - To Date: 2 Reporting Period: 0

The results have been inconclusive in both patients because of an absence of detectable amounts of D-lactate in the urine. Investigator taking over the project: CPT Lynn Whittington.
Detail Summary Sheet

Prot No: 21H/85  Status: Ongoing

TITLE: Efficacy of Cholestyramine in Acute Infantile Diarrhea

Principal Investigator: CPT George M. Maher, MC
Associate Investigator: COL James W. Bass, MC

Department/Section: Pediatrics

Key Words:
Diarrhea, infantile

Funding:  FY 84: NA  FY 85: $300.  Periodic Review Date:
Gifts: None  Decision: To be reviewed in Apr 86

OBJECTIVE: To determine if cholestyramine reduces the frequency and duration of diarrhea in infants with diarrhea of less than 72 hours' duration.

TECHNICAL APPROACH: Infants 6 months to 2 years of age with diarrhea of less than 72 hours' duration will be randomized to receive either cholestyramine or a placebo for three days to be administered by the parents at home. A record of frequency and approximate volume of stools will be kept by the parents, and the patients will be followed in the pediatric clinic at 3-5 days and 2 weeks after initiation of therapy.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Project not yet begun. Because of the inability to find a supplier for the placebo, Infalyte will be used. This is a powder consisting of sugar, salt, and potassium, which is used for treatment of diarrhea. It will be packaged by the Pharmacy so that the physician will not know which medication the patient is getting. Since CPT Maher is leaving TAMC, MAJ Christopher White will be the Principal Investigator.
Detail Summary Sheet

Prot No: 11H/84 Status: Terminated

TITLE: Oral Rehydration in Infants and Children

Principal Investigator: CPT Thomas M. Martinko

Associate Investigators:

Department/Section: Pediatrics/Infectious Disease

Key Words: oral rehydration

Funding: FY 84: $300. FY 85: None

Periodic Review Date: Decision: Terminated

OBJECTIVE: To test the efficacy and safety of using an oral solution to rehydrate patients admitted to the pediatric ward with mild to moderate dehydration (less than or equal to 10%). Special emphasis will be placed on determining the economic practicality of this method compared to conventional IV therapy.

TECHNICAL APPROACH: Subjects will consist of children three months to two years of age who are admitted to the pediatric ward with the diagnosis of less than or equal to 10% dehydration of less than five days duration. After obtaining informed consent, the participants will be placed into one of three treatment groups. Group 1 will be those treated with standard IV fluids and will function as the control group. Group 2 will be those receiving Pedalyte KS which is an oral rehydration solution provided by Ross Laboratories, and Group 3 will be those treated with Infalyte, an oral rehydration solution.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

The original investigator departed the command. The present principal investigator was initially interested in this and volunteered to take it over. However, after seeing the bias built into the study group (i.e., that patients tolerating p.o. are rarely admitted), he feels it is not worth the time and effort and is therefore terminating the project.
OBJECTIVE: To evaluate the accuracy and usefulness of the Movement Assessment of Infants (MAI).

TECHNICAL APPROACH: To test "high-risk" infants (premature, low birth weight, etc.) at 4 months of age and again at 12 months with the MAI and Ordinal Scales of Psychological Development.

PROGRESS: No. of Subjects Enrolled - To Date: 8  Reporting Period: 8

Training for the administration of the Movement Assessment of Infants (MAI) and the Uzgiris and Hunt Scales of Infant Psychological Development began in January 1985. Interrater reliability was established in February 1985 and data collection began in March. Eight infants, aged 4 months, have been evaluated as a part of this study. Infants are tested at 4 months and again at 12 months; therefore, the babies tested in March will be eligible for retesting in November for the predictive validity portion of the study. Due to transfer of some of the families involved in this study, not all of the infants will be available for retesting at 12 months. Therefore, the study will concentration on the concurrent validity issue.

*Associate investigators are with the Department of Special Education, University of Hawaii.
Detail Summary Sheet

Prot No: 11H/84  Status: Terminated

TITLE: Oral Rehydration in Infants and Children

Principal Investigator: CPT Thomas M. Martinko
Associate Investigators:
Department/Section: Pediatrics/Infectious Disease

Key Words: oral rehydration

Funding: FY 84: $300. FY 85: None
Gifts: None  Decision: Terminated

OBJECTIVE: To test the efficacy and safety of using an oral solution to rehydrate patients admitted to the pediatric ward with mild to moderate dehydration (less than or equal to 10%). Special emphasis will be placed on determining the economic practicality of this method compared to conventional IV therapy.

TECHNICAL APPROACH: Subjects will consist of children three months to two years of age who are admitted to the pediatric ward with the diagnosis of less than or equal to 10% dehydration of less than five days duration. After obtaining informed consent, the participants will be placed into one of three treatment groups. Group 1 will be those treated with standard IV fluids and will function as the control group. Group 2 will be those receiving Pedialyte RS which is an oral rehydration solution provided by Ross Laboratories, and Group 3 will be those treated with Infalyte, an oral rehydration solution.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

The original investigator departed the command. The present principal investigator was initially interested in this and volunteered to take it over. However, after seeing the bias built into the study group (i.e., that patients tolerating p.o. are rarely admitted), he feels it is not worth the time and effort and is therefore terminating the project.
Detail Summary Sheet

Prot No: 17/79  Status: Terminated

TITLE: Intubation and Chest Tube Placement in Small Laboratory Animals

Principal Investigator: LTC Franklin R. Smith, MC

Associate Investigators:

Department/Section: Pediatrics/Neonatology

Key Words: endotracheal intubation

Funding: FY 84: $2,500. FY 85: $300. Periodic Review Date:

Gifts: None  Decision: Terminated

OBJECTIVE: To provide a teaching model for medical trainees in the proper techniques of endotracheal intubation and chest tube insertion.

TECHNICAL APPROACH: Young kittens and rabbits housed at the Tripler Army Medical Center Animal Facility will serve as animal models. The anatomy of the thorax and airway closely approximates that of the premature human infant. Standard intubation and thoracotomy equipment will be set up at times prearranged with the Department of Clinical Investigation and the Newborn Medicine Service. Junior house staff officers will be provided instruction in proper technique. Each house staff officer will then use the animal models to refine his own abilities.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

Project is terminated at the request of the principal investigator.
Detail Summary Sheet

Prot No: 35/83 Status: Terminated

TITLE: Prophylactic Therapy with Oral Gamma Globulin in the Prevention of Neonatal Necrotizing Enterocolitis: A Controlled Prospective Trial

Principal Investigator: LTC Franklin Smith, MC
Associate Investigator: CPT Eduardo Lugo, MC
Department/Section: Pediatrics/Neonatology

Key Words: Necrotizing enterocolitis; gamma globulin

Funding: FY 84: $300. FY 85: 0
Periodic Review Date: Jun 85
Gifts: None Decision: Terminate

OBJECTIVE: To determine if oral prophylactic therapy with human serum immune globulin, in infants at risk, decreases the incidence of necrotizing enterocolitis (NEC).

TECHNICAL APPROACH: Three hundred consecutive infants at risk for developing NEC will be enrolled. Infants will be randomly assigned to either the placebo group or the gamma globulin therapy group. Duration of therapy will be 10 days or when NEC occurs. Infants with stage I NEC will continue to receive the study solutions; if stage II or III NEC is present, the study will be terminated in that particular infant. Stool and gastric aspirant cultures will be collected from each infant before the first dose of the study and at days 3, 10, and 14 following enrollment. Data obtained will be evaluated for the effects of therapy on incidence and severity of NEC, changing patterns in gastric/stool flora with therapy, and changing patterns of serum immunoglobulin levels with therapy.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

The basic rationale for this project remains unchanged. Currently, this and other studies involving nonconsenting (minor) subjects in which no therapeutic benefit is expected for one arm of the study (control group) are under review by the OTSG. The project is terminated until this controversy is resolved.
OBJECTIVE: To investigate the sensitivity and specificity of a commercially available rapid latex particle agglutination test in the diagnosis of Group A β-hemolytic streptococcal pharyngitis (GABHS).

TECHNICAL APPROACH: Double throat swabs were obtained from 1,047 patients and tested for the presence of GABHS by conventional throat culture and by latex agglutination. Acute and convalescent sera for antistreptococcal antibody titers were obtained from 45 patients, using serologic criteria (a fourfold or greater rise in antibody titer) as the basis for comparing the throat culture and the latex agglutination test.

PROGRESS: No. of Subjects Enrolled - To Date: 45 Reporting Period: 45

14.1% of throat cultures were positive for GABHS. Compared to the throat culture, the rapid latex agglutination test had a sensitivity of 78%, specificity of 88%, positive predictive value of 52%, and a negative predictive value of 96%. Using serologic criteria for GABHS infection, the latex agglutination test detected and failed to detect the same number of infections as the throat culture. The rapid latex agglutination test was highly effective in predicting patients with negative throat cultures. The latex test was much less accurate in predicting patients with positive throat cultures. However, under conditions where throat cultures are obtained more selectively, the positive predictive value of the latex test will be higher. Because the rapid latex agglutination test is equal to the throat culture in detecting patients with serologically confirmed GABHS infections, and its use allows early antimicrobial therapy to be given, it may replace the throat culture as the test of choice for the detection of GABHS on throat swabs.


White CB, Bass JW, Yamada SM: Rapid latex agglutination compared to the throat culture for the detection of group A streptococcal infection. Pediatr Inf Dis (in press).

*Swabs and latex agglutination kits from Marion Laboratories, approximate value $400.
**Detail Summary Sheet**

<table>
<thead>
<tr>
<th>Prot No:</th>
<th>43/83</th>
<th>Status: Terminated</th>
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<tbody>
<tr>
<td><strong>TITLE:</strong></td>
<td>Behavioral Management Versus Drug Therapy in the Treatment of Behavioral Distress Associated with Painful Medical Procedures in Pediatric Oncology Patients</td>
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<tr>
<td><strong>Principal Investigator:</strong></td>
<td>MAJ James N. Bowen, MC</td>
<td></td>
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<tr>
<td><strong>Associate Investigators:</strong></td>
<td>Psychiatry/Child and Adolescent Psychiatry</td>
<td></td>
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<tr>
<td><strong>Key Words:</strong></td>
<td>behavioral management</td>
<td></td>
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<tr>
<td><strong>Funding:</strong></td>
<td>FY 84: $300. FY 85: $300.</td>
<td></td>
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<tr>
<td><strong>Gifts:</strong></td>
<td>None</td>
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<td><strong>Periodic Review Date:</strong></td>
<td>Decision: Terminated</td>
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**OBJECTIVE:** To investigate the relative efficacy of a behavior modification program versus drug therapy (pentobarbital or a combination of Demerol, Thorazine, and Phenergan) in reducing behavioral distress (pain and anxiety) in children with cancer undergoing painful medical procedures (lumbar puncture (LP) and bone marrow aspiration (BMA)).

**TECHNICAL APPROACH:** This study will investigate the effects of a behavioral management program (B) versus drug therapy (D) in the reduction of behavioral distress in pediatric oncology patients. Patients will be blocked into groups based on their age, sex, prior treatment, and OSBD baseline score, and randomly assigned to either the B or D treatment group. Dependent measures will be administered pre, post, and follow-up. Participants will be children aged 4 to 15 years who undergo intermittent BMA and LP as part of their treatment protocols. Dependent measures will measure behavioral distress along several response modalities. In order to assess which children respond, a number of potential predictor variables will be administered.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

The project is terminated due to the departure of the principal investigator.
### Detail Summary Sheet

**Prot No:** 34/83  
**Status:** Terminated

**TITLE:** Stressors, Coping Mechanisms, and Prevalence of Stress-Related Symptoms Among Active Duty Military Personnel Who Served in Vietnam

**Principal Investigator:** COL Dionisios P. Devaris, MC  
**Associate Investigators:** Claude Chemtob, Ph.D.

**Department/Section:** Psychiatry

**Key Words:** Stressors; coping mechanisms

**Funding:** FY 84: $500. FY 85: 0  
**Gifts:** None  
**Periodic Review Date:**  
**Decision:** Terminated

**OBJECTIVE:** (1) To assess the presence of stress-related symptoms among medical enlisted soldiers and officers who service in Vietnam, and (2) to assess the relationship of coping styles to the presence or absence of stress-related symptoms.

**TECHNICAL APPROACH:** Fifty TAMC medical personnel who have served in Vietnam will be interviewed using a semistructured interview format. Subjects will be initially contacted by letter, with a follow-up low-key phone call offering more details, clarification, and opportunity for prospective subjects to ask questions.

**PROGRESS:** No. of Subjects Enrolled - To Date:  
**Reporting Period:**

As three of the four original investigators have left TAMC, this project has been terminated.
Detail Summary Sheet

Prot No: 16H/84  Status: Completed

TITLE: Stressors, Coping Mechanisms, and Prevalence of Stress-Related Symptoms Among Special Forces (Green Beret) Personnel Who Served One to Several Tours in the Republic of South Vietnam and/or Similar Assignments in Southeast Asia

Principal Investigator: CPT Gary K. Neller, MC
Associate Investigators: CPT Victor Stevens, MC; Claude Chemtob, Ph.D.; COL Dionisios P. Devaris, MC

Department/Section: Psychiatry

Key Words: Stressors; coping mechanisms; stress-related symptoms

Funding: FY 84: $500. FY 85: $4,000. Periodic Review Date: May 85
Gifts: None Decision: Continue

OBJECTIVE: (1) To assess the presence of stress-related symptoms among Special Forces (Green Beret) soldiers both officers and non-commissioned officers (lowest rank was E-4 in TBA). (2) To assess the relationship of coping styles to the presence or absence of stress-related symptoms.

TECHNICAL APPROACH: Questionnaire and interviews of approximately 30 Special Forces personnel who served one to several tours in the Republic of South Vietnam or a similar assignment in Southeast Asia will be utilized.

PROGRESS: No. of Subjects Enrolled - To Date: 80 Reporting Period: 0

Eighty questionnaires were received, 60 were completed by the subjects and entered on University of Hawaii, Department of Sociology computer for evaluation (Dr. Charles Gleason). A copy of the questionnaire and code book are available at the Psychiatry Department, TAMC. The descriptive data has been returned for analysis. Only a few more variables will be cross-checked and the computer portion of the research will be completed (within 2-3 weeks). There are several interesting points already noted in the research which should generate further research at a later date. Also, publications are anticipated. COL Cruz, Chief of P.I.P.S-P.S. will represent TAMC on the publication portion of the project. Project completed except for publication within time frame originally projected, except for adjusted time in getting funds for computer rental.

Publications: Pending; TAMC has control of any publications from this project per agreement of all investigators.
OBJECTIVE: To determine whether certain features of the P300 can reliably distinguish between normal children, those diagnosed as having an attention deficit disorder, and those diagnosed with a conduct disorder.

TECHNICAL APPROACH: Participants will fall into three categories: (1) children with an attention deficit disorder (ADD), (2) children with a conduct disorder (CD), and (3) normal children. Participants may range in age from 5 to 16 years. The sample size should include 20-30 participants in each group. The analysis will focus on the P300 component of the ERP, although other components will also be evaluated. The two dependent measures will be the latency and amplitude of the P300. Of particular importance will be variation in these measures as a function of subject group (ADD versus CD versus normals), experimental condition (attend versus distraction), and interactions between these variables. The analysis will employ appropriate univariate and multivariate statistical techniques.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

The project was terminated by HSC because of noncompliance with DoD regulations in that there was no potential benefit to minor participants.
Detail Summary Sheet

Prot No: 31/83 Status: Terminated

TITLE: Enhancing Visualization of Small Nodules in Radiographic Examinations

Principal Investigator: CPT Robert J. Matthews, MSC
Associate Investigators: MAJ Marvin E. Hill, MC

Department/Section: Radiology

Key Words: Nodules

Funding: FY 84: $300. FY 85: $300.

Gifts: None Decision: Terminated

OBJECTIVE: To enhance visualization of small nodules in a radiographic examination. These nodules carry diagnostically important information and an improved image will allow this information to be more easily seen. The approach entails the design and construction of an imaging device capable of retrieving resolution lost as a result of the x-ray imaging technique.

TECHNICAL APPROACH: The "true" intensity distribution in a radiographic image in the plane of interest is to be retrieved by a deconvolution of the image in the actual recording with the experimentally derived spread function. The project involved the construction of a deconvolution filter to be used in an analog viewing apparatus that would permit a posteriori sharpening of defocused images notably in the absence of noise. By increasing the signal to noise level in the final image, noise limited structures, such as small chest nodules, may be more easily seen.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The proposed deconvolution filter consisted of two components, i.e., an intensity distribution recording and a complex phase recording of interference fringes. Due to many technical difficulties that had to be overcome, progress was slow so that only initial results for the first component were obtained. Examination of the first or amplitude component indicated that much of the information was recorded in the non-linear portion (toe and shoulder) of the film's H&D response curve, which would have to be compensated for prior to recording the second component of the filter. Indications are that more sophisticated equipment and a vibration free laboratory are required for completion. The project is terminated due to the permanent change of station of the principal investigator.
OBJECTIVE: Is Golytely colon preparation, used at different time intervals before barium enema, more efficacious than the standard TMC preparation?

TECHNICAL APPROACH: This is a double-blinded three-arm study of an oral electrolyte solution, called "TMC light," given at 1200 and 1800 hours, and the standard barium enema preparation, called "TMC heavy." The initial study will consist of a total of 150 outpatients divided into the three groups by random numbers selected at the time of scheduling for the procedure. The scheduling clerk will retain this log. The Chief, Department of Radiology will be the only person with access to the code until the completion of the study. The examining radiologist will complete the flow sheet that will accompany the radiology request slip. If the study is inadequate and must be repeated, the Chief, Department of Radiology or his designate will break the code for that individual and select an alternate preparation on a clinical basis. The indication for exclusion from the study is a requirement for metaclopramide or additional cathartics.

PROGRESS: No. of Subjects Enrolled - To Date: 140 Reporting Period: 140

Approximately 140 patients have been enrolled. The enrollment period of the study is complete and analysis of data is pending.
OBJECTIVE: To determine the usefulness of urinary D-lactate levels in the evaluation of the acute abdomen.

TECHNICAL APPROACH: Patients evaluated for acute abdominal pain will have urinary D-lactate and creatinine specimens collected every 12 hours from the initial evaluation until four collections postoperatively or it is determined the patient does not have an acute abdomen. In addition, ten preoperatively to serve as controls.

PROGRESS: No. of Subjects Enrolled - To Date: Reporting Period:

Data collection is ongoing. Because of the departure from TAMC of CPT Ameika, COL Peter J. Barcia, MC is now Principal Investigator.
OBJECTIVE: To compare the pleurodesis obtained by chemical versus operative techniques, the intent being to clarify the role of chemical pleurodesis as a possible definitive treatment for spontaneous pneumothorax in active duty military personnel with special physical fitness requirements.

TECHNICAL APPROACH: A pig model has been used to compare the efficacy of operative versus chemical pleurodesis. A standard pleural abrasion in one hemithorax was tested versus Tetracycline pleurodesis six weeks postoperatively via chest tube insertion. X-rays, necropsy, and microscopic findings were compared.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The project has been completed and an exhibit made through the Armed Forces Institute of Pathology was displayed at the American College of Surgeons Clinical Congress in October 1985 in Chicago. A manuscript is in preparation.
### Detail Summary Sheet

**Prot No:** 7A/84  
**Status:** Terminated

**TITLE:** Localization and Toxicity of Ferromagnetic Ceramic Beads (FMCB)

**Principal Investigator:** COL Peter J. Barcia, MC  
**Associate Investigators:** Dr. Arnold Feldman

**Department/Section:** Surgery/General Surgery

**Key Words:** ferromagnetic ceramic beads

**Funding:**  
FY 84: $300.  
FY 85: $300.  
**Periodic Review Date:**  
**Gifts:** None  
**Decision:** Terminated

**OBJECTIVE:** To obtain proper size, dose, injection medium, tissue localization, and toxicity of FMCB.

**TECHNICAL APPROACH:** Interest in heat treatment of cancer has been growing. It is possible that magnetic microbeads injected into a cancer will increase the local temperature when exposed to a high frequency magnetic field. These beads are available and preliminary toxicity studies are necessary.

**PROGRESS:**  
No. of Subjects Enrolled - To Date: NA  
Reporting Period: NA

The localization of the beads is a function of size. The larger beads localize in the lung vasculature and smaller beads are distributed to the reticuloendothelial system of the liver and spleen. The problems of obtaining the use of an electromagnetic field oscillator necessary to heat the beads has discouraged further studies.
Detail Summary Sheet

Prot No: 5H/85  Status: Ongoing

TITLE: Prophylactic Antibiotics in Inguinal Hernia Repair

Principal Investigator: CPT Ronald E. Beresky, MC
Associate Investigators: LTC Charles Carroll, MC

Department/Section: Surgery/General Surgery

Key Words: inguinal hernia repair

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: Sep 85
Gifts: None  Decision: Continue

OBJECTIVE: Do prophylactic antibiotics affect the incidence of wound infection following inguinal hernia repair?

TECHNICAL APPROACH: This is a prospective randomized study. The perioperative study drug will be administered and the patients will be followed for evidence of wound infection.

PROGRESS: No. of Subjects Enrolled - To Date: 90  Reporting Period: 90

Approximately 90 cases have been completed. These will be reviewed by collecting data on all patients who developed wound infection perioperatively. Long-term follow-up will be obtained by pulling outpatient records.
OBJECTIVE: To define the biochemical, pathophysiological, and pathological (to include histologic) lesions induced by hypertonic phosphate enemas and the time sequence of their occurrence in a pig model.

TECHNICAL APPROACH: Two 10 to 14-week old Yorkshire pigs weighing 14 and 18 kg, respectively, were fed liquid diets only for 24-30 hours prior to the experiment. They were anesthetized with pentobarbital, 24 mg/kg, endotracheally intubated. Central venous and arterial access were acquired and urethral catheterization was performed. The ECG signal and arterial pressure transduced from the arterial line were monitored continuously. The rectum was catheterized using a 26 French Foley catheter with a 30 cc balloon to block defecation. Fleet phosphoenemas in the amount of 2.5 ounces per kilogram were introduced over a 1-3 minute interval via the rectal catheter. This was noted as time zero. Blood pressure, pulse, and temperature were continuously monitored. Blood samples were taken at specified intervals for the measurement of arterial pH, serum calcium, phosphate, electrolytes, ionized calcium, and hematocrit. No attempt to resuscitate the pigs was made.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Our findings suggest that phosphate salts are readily absorbed across the colonic mucosa, and that hyperphosphatemia may rapidly occur. The clinical significance of this, given normal colonic emptying, is uncertain; however, our study suggests that if abnormal colonic emptying or anatomy is present, this form of bowel preparation is not safe.
**Detail Summary Sheet**

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<td>TITLE:</td>
<td>Animal Models for Advanced Trauma-Life Support Provider and Instructor Courses</td>
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<td>Principal Investigator:</td>
<td>LTC Charles P. Carroll, MC</td>
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<td>Associate Investigators:</td>
<td>COL James B. Peake, MC; MAJ Frank Rogers, MS; CPT William Stokes, VC</td>
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**OBJECTIVE:** To fulfill the requirement of ATLS Provider and Instructor courses, i.e., to teach physicians a standardized approach to trauma care in the early hours of trauma patient assessment and to teach life-saving skills using animal models.

**TECHNICAL APPROACH:** Goats or pigs are deeply anesthetized with sodium pentobarbital and prepared for surgery. Participants then perform cricothyroidotomy, peritoneal lavage, chest tube placement, pericardiocentesis, and venous cutdown procedures under the close supervision of certified instructors. Animals are euthanatized at the end of the surgery laboratory.

**PROGRESS:** No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Sixteen physicians were trained in the instructor course held this past year. Four goats were used.
Detail Summary Sheet

Prot No: 38T/85  Status: Ongoing

TITLE: Surgical Training Laboratory Using Animal Models

Principal Investigator: LTC Charles P. Carroll, MC
Associate Investigators: COL Peter J. Barcia, MC; LTC Y-T Lee, MC;
                      LTC David W. Olson, MC; LTC George Wilkinson, MC

Department/Section: Surgery/General Surgery

Key Words: Surgical training

Funding: FY 84: NA  FY 85: $1000.  Periodic Review Date: Sep 85
Gifts: None  Decision: Continue

OBJECTIVE: To train TAMC residents and interns in surgical techniques.

TECHNICAL APPROACH: Pigs under satisfactory general anesthesia underwent one
saphenous vein cutdown, insertion of chest tube, pericardiocentesis,
thoracotomy, peritoneal lavage, tracheostomy, and other standard surgical
procedures. Animals were euthanatized at the completion of the surgery lab.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

A total of 10 pigs were used for this protocol to provide training for 40
interns/residents during the past year.
Detail Summary Sheet

Proto No: 7A/85 Status: Completed

TITLE: Autologous Tissue Injection for Reconstruction

Principal Investigator: MAJ Dennis M. Everton, MC
Associate Investigators: Mr. Gordon H. Bryant; CPT William S. Stokes, VC

Department/Section: Surgery/Otolaryngology/Head & Neck Surgery

Key Words:
Autologous tissue injection

Funding: FY 84: NA FY 85: $300. Periodic Review Date:
Gifts: * Decision: Completed

OBJECTIVE: To answer the question "Is injectable autologous tissue, i.e., morcellized dermis, morcellized cartilage, effective in building tissue?

TECHNICAL APPROACH: Two pigs were utilized for this study. Skin was removed from the animal's abdomen. It was then morcellized with the instruments (tissue morcellizer) sent from Tekmar Co. The tissue was injected through 27-gauge needles into the pig's mid-abdominal subcutaneous/cutaneous regions.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

The injected autologous tissue caused no untoward reactions. This study, performed on only two pigs (because of time restraints), gave us important information. The lack of tissue rejection gives us the impression that morcellized autologous skin may be utilized in the human patient. We would have preferred to utilize additional pigs but must close the study since the principal investigator is leaving.

*Morcellizers were loaned by Tekmar Co. and Kontes Scientific Glassware/Instrument Co., Inc. on Bailment Agreement. All equipment has been returned.
Detail Summary Sheet

Prot No: 5/83  Status: Ongoing

TITLE: Audiological Management Considerations of Known Ototoxic Drug Users

Principal Investigator: LTC Jerod L. Goldstein, MC

Associate Investigators:

Department/Section: Surgery/Otolaryngology

Key Words: ototoxic drug users

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Sep 85

Gifts: None  Decision: Continue

OBJECTIVE: To determine the sensitivity of ultra high frequency audiometry testing procedures compared to standard frequency audiometry for detection of ototoxicity from drugs.

TECHNICAL APPROACH: Threshold shift(s) of potential drug users over time will be measured utilizing ultra high frequency stimulus. A clinical procedure of high predictive value to detect the earliest reversible stage of ototoxicity will be designed.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Progress on the above study was delayed due to equipment failure. With the departure of LTC Goldstein, the principal investigator is now CPT Jeffrey W. Davies, MC.
Detail Summary Sheet

Prot No: 45T/85  Status: Completed

TITLE: Cardiopulmonary Bypass Training of Personnel

Principal Investigator: CW3 Michael J. Hollingsed, PA-C
Associate Investigators: LTC George R. Wilkinson, MC

Department/Section: Surgery/Cardiothoracic Surgery

Key Words: Bypass grafting; CPB

Funding: FY 84: NA  FY 85: $500.  Periodic Review Date:
Gifts: None  Decision: Completed

OBJECTIVE: To familiarize personnel with cardiopulmonary bypass procedures to be used in open heart surgery.

TECHNICAL APPROACH: Simulating actual human application, the animal was prepped and draped. Anesthesia was appropriately administered for deep anesthesia. The sternum was opened, pericardium incised, and heart explored. Heparin was administered and the animal was cannulated for a cardiopulmonary bypass. CPB was initiated, one bypass graft was implanted, and the animal was successfully weaned from CPB. Following reversal of protamine, the protocol standards were found to be satisfied and the animal euthanatized.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

This was a one-time project that has been completed. One sheep was utilized.
OBJECTIVE: To study the efficacy and safety of using ViaFlex® (polyvinyl chloride) plastic as a temporary fascial substitute.

TECHNICAL APPROACH and PROGRESS: Sixteen sham control rats and 32 Viaflex® implants rats were subjected to tensile strength determination of the abdomen. The Viaflex® group had the same tensile strength and no higher mortality than controls.

This study is being presented at the Society of University Surgeons 1986 meeting.
OBJECTIVE: To develop and maintain proficiency in microvascular anastomosis of veins, arteries, and nerves.

TECHNICAL APPROACH: The groin vessels of the rat or rabbit will be transected and reanastomosed using microvascular principles. The ears of the rabbit will be transected near its junction with the scalp and replantation attempted through microvascular techniques.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

To date, animals on this protocol have been used for the development of microvascular technique. It is my hope that, as time permits, the facilities and animals will be used on a more regular basis during the coming year. Microsurgical technique is an important integral part of the field of plastic and reconstructive surgery.
Detail Summary Sheet

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**TITLE:** An Experimental Proposal Using Animals to Study Gastrointestinal Staplings

**Principal Investigator:** LTC Yeu-Tsu M. Lee, MC

**Associate Investigators:** CPT William S. Stokes, VC

Gordon H. Bryant

**Department/Section:** Surgery/General Surgery

**Key Words:** gastrointestinal stapling

**Funding:**

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<td>$700</td>
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**Funding:**

| FY 84: $700 | FY 85: $250 |

| Gifts: None |

**Decision: Completed**

**OBJECTIVE:** To study the natural course and possible applications of completely stapling across the lumen of the gastrointestinal (GI) tract.

**TECHNICAL APPROACH:** (1) Iatrogenic penetrating injuries of the esophagus, duodenum, high and distal small intestine, and colon will be made and repaired. The suture lines will then be protected by having complete stapling across the lumen proximally. (2) The gastrointestinal content will be bypassed proximal to stapling lines with various gastrointestinal bypasses.

**PROGRESS:**

No. of Subjects Enrolled - To Date: NA

Reporting Period: NA

From 1 Dec to 13 Dec 83, operations were performed on six rabbits. All animals were either dead or sacrificed by 15 Dec 83. From 1 Mar to 31 Aug 84, seven pigs were operated on. All animals were either dead or sacrificed by 18 Oct 84. From 1 Sep 84 to 30 Sep 85, three pigs were operated on and sacrificed by 19 Aug 85.
Objective: To determine which of two procedures provides the safest, most rapid, and accurate method for performing diagnostic peritoneal lavage (DPL).

Technical Approach: Patients in whom DPL is indicated to rule out intra-abdominal hemorrhage will be invited to participate in the study. Patients will be randomized into two groups, one for the open technique and one for the closed. The following information will be obtained: patient's ID, date, operators, admission diagnosis; time skin incision was made; time of aspiration of peritoneal cavity; time procedure ends (catheter out, skin closed); aspiration results; lavage results; findings at laparotomy; and complications of DPL.

Progress: No. of Subjects Enrolled - To Date: 0 Reporting Period: The project was not started because of an insufficient number of patients.
TITLE: Fluid and Electrolyte Changes After Hypertonic Sodium Phosphate Enema in Pigs

Principal Investigator: CPT R. Russell Martin, MC
Associate Investigators: COL Peter J. Barcia, MC

Department/Section: Surgery/General Surgery

Key Words: hypertonic sodium phosphate enema

Funding: FY 84: NA FY 85: $300. Periodic Review Date: 
Gifts: None Decision: Completed

OBJECTIVE: To identify and quantify physiologic changes after administration of lethal and sublethal doses of sodium phosphate enemas in pigs.

TECHNICAL APPROACH: Serum and electrolyte and physiologic changes were measured at varying doses of retained sodium phosphate enema solution. A saline enema of 45 ml/kg was given to four pigs as controls.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Phosphate enema toxicity in pigs causes acidosis, dehydration, hypocalcemia, and hyperphosphatemia at levels previously described in accidental overdoses.
Detail Summary Sheet

Prot No: 17/78        Status: Ongoing

TITLE: Human Implantation of Intraocular Lenses

Principal Investigator: COL Anthony P. Martyak, MC
Associate Investigators: LTC William R. Rimm, MC

Department/Section: Surgery/Ophthalmology

Key Words: intraocular lenses

Funding: FY 84: $500. FY 85: $300. Periodic Review Date: May 85
Gifts: None Decision: Continue

OBJECTIVE: To study the effects of implantation of intraocular lenses in humans.

TECHNICAL APPROACH: Utilization of posterior chamber intraocular lenses requires an extracapsular cataract method with preservation of the posterior lens capsule. Anterior chamber intraocular lenses are used after a routine intracapsular cataract extraction, as secondary implants, and when the posterior capsule is broken during an extracapsular cataract procedure.

PROGRESS: No. of Subjects Enrolled - To Date: Reporting Period: 87

During FY 85, 87 intraocular lenses were implanted in patients. Six of the lenses were anterior chamber and 81 were posterior chamber lenses. Eighty-five of the implants were primary implants (done at the time of original surgery) and two were lens exchanges. The two lens exchanges were for poor fixation of the primary inserted lens (one case 3 years and one case 6 weeks after original implantation). Both of these patients have had excellent results with 20/20 vision. There was one case of dislocation of an anterior chamber implant into the vitreous cavity during attempt at insertion. The lens was removed from the vitreous cavity and no lens was inserted.

The currently used posterior chamber lenses have been removed from investigational status by the FDA. However, the flexible anterior chamber lens and any new modification of the posterior chamber lens (e.g., addition of ultraviolet blockers) remain investigational devices.
TITLE: Study of Management of Wounds for Delayed Primary Closure

Principal Investigator: CPT David M. McFaddin, MC
Associate Investigators: CPT Ronald E. Beresky, MC; LTC Charles Carroll, MC

Department/Section: Surgery/General Surgery

Key Words: Wound closure

Funding: FY 84: NA FY 85: $300. Decision: To be reviewed in Dec 85

OBJECTIVE: To answer the question "Are frequent dressing changes prior to delayed primary wound closure associated with less infectious wound complications than the more standard method of leaving the original dressing in place until delayed primary closure?"

TECHNICAL APPROACH: Controlled, randomized study comparing Group A, frequent dressing changes, to Group B, no-touch technique.

PROGRESS: No. of Subjects Enrolled - To Date: 5 Reporting Period: 5

Since CPT McFaddin is leaving TAMC, CPT Ronald Beresky will become principal investigator.
PROGRESS: No. of Subjects Enrolled - To Date: 62    Reporting Period: 62

Results demonstrated both cimetidine and metoclopramide decreased gastric volumes and increased pH from the placebo group. The combination of metoclopramide and cimetidine increased pH significantly (p<0.001) from placebo in both obese and nonobese subjects. However, the combination did not significantly raise the pH over either cimetidine or metoclopramide given alone. Also, cimetidine alone did not prove significantly better than metoclopramide alone in raising the pH of gastric contents. Regarding gastric volume, there were no statistically significant differences between or among the four treatment groups. The mean volume of the placebo group was 28 ml ± 8.3 (S.E.). The mean volume of cimetidine treatment group II was 19.1 ml ± 5.1. The mean volume of metoclopramide treatment group III was 18.2 mg ± 3.9. The mean volume of the combination group IV was 13.8 ml ± 4.5.

A manuscript was submitted to the Academy of Health Sciences.
Detail Summary Sheet

Prot No: 14T/85  Status: Ongoing

TITLE: Microvascular Lab-Psychomotor Skills

Principal Investigator: MAJ Steven V. Moore, MC
Associate Investigators:

Department/Section: Surgery/Orthopedics

Key Words: training, psychomotor skills

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: Sep 85
Gifts: None  Decision: Continue

OBJECTIVE: To maintain competency in microvascular technique, including anastomosis of 1 mm rat arteries and veins.

TECHNICAL APPROACH: Rats are anesthetized with sodium pentobarbital and one femoral artery and/or vein is transected and then reanastomosed. The wound is observed daily for any complications.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

Ongoing psychomotor skills laboratory with training in microvascular technique is an important adjunct to a training program in orthopedic surgery. Equipment (microscope, microvascular instruments, clamps, suture) are all on hand in the Department of Clinical Investigation Surgical Laboratory. An appropriate animal model, 200-400 gm rats, are available, i.e., the femoral artery and vein are the appropriate size desired. A total of 10 rats were successfully used for training during the past year. An increase in training is anticipated during the next year. The laboratory is used as a training facility for residents rotating through the Hand Surgery Service. Progress has been less frequent due to the clinic move. There has been less activity this fall following the clinic move and no resident has been on the Hand Service.
Detail Summary Sheet

Prot No: 24H/85 Status: Ongoing

TITLE: Electrocautery Versus Cold Knife in Inguinal Incisions

Principal Investigator: CPT Annette Nathan, MC
Associate Investigators: CPT Russ Martin, MC; COL Peter Barcia, MC

Department/Section: Surgery/General Surgery

Key Words: electrocautery; inguinal incisions

Funding: FY 84: NA FY 85: $300. Periodic Review Date:...
Gifts: None Decision: To be reviewed in Feb 86

OBJECTIVE: Does using electrocautery in inguinal incisions affect the rate of wound infection, dehiscence, or appearance of scar?

TECHNICAL APPROACH: Patients having an elective inguinal procedure will be invited to participate. Incision type will be determined by randomization. The following parameters will be measured: wound infection rate, dehiscence rate, scar appearance at one week, six months, and one year, and other complications.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0
Project is not yet underway.
Detail Summary Sheet

Prot No: 8A/85 Status: Completed
TITLE: The Effect of Hyperthermia on Rabbit Oral Tissue
Principal Investigator: CPT Alfred Park, MC
Associate Investigators: Arnold Feldman, Ph.D.
Department/Section: Surgery/Otolaryngology Head & Neck Surgery
Key Words: Hyperthermia
Funding: FY 84: NA FY 85: $600. Periodic Review Date: Gifts: * Decision: Completed

OBJECTIVE: To investigate the damage of microwave heating to 43-45°C on the tongue and salivary glands of the rabbit.

TECHNICAL APPROACH: The tongues of 10 rabbits were heated with thermocoupler. Therapeutic temperature was produced and CPK and amylase levels, as well as histopathology, were obtained.

PROGRESS: No. of Subjects Enrolled - To Date: NA Reporting Period: NA

Data has been collected and reviewed. Results were inconclusive with few rabbits' tongue heated to 43-45°C and CPK equivocally elevated while amylase was unaffected. Histopathology showed some changes with edema, vascular damage, necrosis, and granulocytic infiltration at high, prolonged temperatures.

*The heating unit was on loan from Dr. Feldman, University of Hawaii, and has been returned.
Detail Summary Sheet

Prot No: 17/83  Status: Completed

TITLE: Relationship of Increased Intracranial Pressure in Primates with Dicrotic Notching on the Gee-O PG

Principal Investigator: LTC Thomas P. Perone, MC
Associate Investigators: CPT William S. Stokes, VC; John R. Claybaugh, Ph.D.

Department/Section: Surgery/Neurosurgery

Key Words: dicrotic notching

Funding: FY 84: $2,000. FY 85: 0

Gifts: None  Decision: Completed

OBJECTIVE: To determine if the Gee Oculopneumoplethysmography (Gee OPG) can be used as an accurate, noninvasive means of identifying increased intracranial pressure (ICP) in primates, and to set the groundwork for human experimentation using the Gee OPG as a noninvasive means of measuring increased ICP.

TECHNICAL APPROACH: Under general anesthesia, sterile saline was infused into the subarachnoid space and intracranial pressure measured through the infusing catheter. Intracranial pressure was increased incrementally to a maximum of 100 mms of mercury, and serial OPGs were performed.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

Ten attempts at this experiment have been made. However, because of technical problems, six of these attempts had to be aborted. Of the four successful attempts, the first was performed on an animal that was subsequently found to be diabetic and was discontinued from this study. The remaining three successful attempts have been performed on the same animal. In all of these, the intracranial pressure has varied between 8 mms of mercury and 100 mms of mercury for short periods of time, i.e., 5 minutes or less, and no dicrotic notch has been found on the OPG tracing. We have evaluated noninvasively the intraocular pressure associated with the OPG and have found that the intraocular pressure significantly increases immediately after the OPG and gradually decreases over a period of approximately 20 minutes to the baseline value. The presence or absence of the dicrotic notch in rabbits, pigs, and goats may be studied to see if one of these species is suitable for further study of this phenomenon. No further animal experimentation has been done this fiscal year because of time constraints. The principal investigator anticipates preparing a manuscript prior to his departure from TAMC in the summer of 1986.
**Detail Summary Sheet**

**Prot No:** 18/83  
**Status:** Completed

**TITLE:** The Incidence of Dicrotic Notching on Gee-OPG in Patients with Defined Head Trauma or Tumors

**Principal Investigator:** LTC Thomas P. Perone, MC  
**Associate Investigators:** LTC Bernard Robinson, USAR; LTC David W. Olson, MC

**Department/Section:** Surgery/Neurosurgery

**Key Words:** dicrotic notching; Gee-OPG

**Funding:** FY 84: $500. FY 85: $300.  
**Periodic Review Date:**  
**Gifts:** Decision: Completed

**OBJECTIVE:** To determine the incidence of patients with specific trauma/tumor to the head showing dicrotic notching on the Gee-OPG.

**TECHNICAL APPROACH:** In an attempt to identify a noninvasive method of measuring increased intracranial pressure, patients with clinically increased intracranial pressure due to trauma or brain tumors have an OPG performed by the vascular nurse. Excluded from this are patients with ocular trauma, ocular prostheses, or an absent globe. The OPG is a well-established, noninvasive device used in assessing cerebrovascular disease.

**PROGRESS:**  
**No. of Subjects Enrolled - To Date:** 18  
**Reporting Period:** 3

Eighteen patients with various causes of increased intracranial pressure have been studied and we failed to see the dicrotic notch in a significant number. More significant, however, is the maximal amplitude of the OPG, as well as the measurement of the slope of the OPG. Because of the marked decrease in the number of head-injured patients seen at Tripler Army Medical Center, only three additional patients have been added in the past fiscal year. The principal investigator anticipates preparing a manuscript prior to his departure from TAMC in the summer of 1986.
Detail Summary Sheet

Prot No: 21/80               Status: Ongoing

TITLE: International Study on Lateral Electrical Stimulation for Treatment of Scoliosis

Principal Investigator: COL Kent A. Reinker, MC
Associate Investigators:

Department/Section: Surgery/Orthopedics

Key Words: scoliosis

Funding: FY 84: $22,200. FY 85: 0 Periodic Review Date: Jun 85
Gifts: Decision: Continue

OBJECTIVE: To investigate the treatment of scoliosis in adolescents using stimulation of lateral musculature.

TECHNICAL APPROACH: Scoliosis of moderate degree in adolescent females has been treated recently with the use of electrical stimulation of the muscles using a 9-volt direct current with between 50 and 100 milliamperes of current. The muscles are stimulated to contracture at six second intervals while the patient is supine, usually asleep at night. Most stimulation is done during waking hours and the patients are encouraged to engage in perfectly normal activities during the daytime.

PROGRESS: No. of Subjects Enrolled - To Date: 21 Reporting Period: 0

No new patients were enrolled in this study during the past year. We continued to collect data on patients previously enrolled who are still in Hawaii. In our estimation enough data has been collected nationwide to allow adequate assessment of results of this method of treatment. Our results have shown this method to be comparable in efficacy to previous methods of treatment. We are continuing to offer this method of treatment as an alternative to our patients. Those patients using the form of stimulator already approved by the Food and Drug Administration for nonexperimental use are not, however, being enlisted into the study protocol. Only those patients requiring the dual channel stimulator, which has not yet been approved for use, will be enlisted into the protocol.

The nationwide study protocol has been enlarged to include the use of this method in patients with kyphosis. We have elected not to participate in this aspect of the nationwide study as we have very few patients who would be potential participants.
Detail Summary Sheet

Prot No: 46A/85  Status: Ongoing

TITLE: Altered Consciousness Induced by Overdrainage of Cerebrospinal Fluid

Principal Investigator: LTC Bernard Robinson, MC, USAR
Associate Investigators: John R. Claybaugh, Ph.D.; MAJ Jon Graham, MC; LTC Thomas P. Perone, MC

Department/Section: Surgery/Neurosurgery

Key Words: Cerebrospinal fluid

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: Decision: To be reviewed in Sep 86

OBJECTIVE: To create an animal model in which coma can be induced by overdrainage of cerebrospinal fluid. Additionally, we hope to be able to demonstrate complete reversal of coma by replacing the volume of CSF removed. We hope to characterize any changes induced by the test maneuver (CSF drainage) in the parameters studied.

TECHNICAL APPROACH: Various parameters of vital functions are to be monitored during the investigation. These include electroencephalogram, blood pressure, electrocardiogram, and pulse rate. The test animal will require a craniectomy and insertion of a reservoir to be used for the actual access to the intrathecal compartment chosen for removal of CSF.

PROGRESS: No. of Subjects Enrolled - To Date: NA  Reporting Period: NA

This protocol was approved in September 1985.
Title: The Effect of Continuous Passive Motion on Intra-articular Trauma with Continuous Passive Motion Device (CPMD)

Principal Investigator: COL Michael M. Romash, MC
Associate Investigators: CPT Harald J. Henningsen, MC

Department/Section: Surgery/Orthopedic

Key Words: intra-articular trauma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jun 85
Gifts: None Decision: Continue

Objective: To assess the effect of continuous passive motion of joint function and rehabilitation after injury and/or repair of knee.

Technical Approach: Patients with intra-articular injuries of tibial plateau fractures, ruptured knee ligaments, reconstructed knee ligaments, patellar fractures, and dislocated patellae will be placed in the CPMD immediately after treatment. This will be done in a sequential fashion, alternating those so treated with those treated in the present fashion with early active motion or intermittent passive motion with no crossover. A total of 100 patients will be studied. The two groups will be compared regarding range of motion, need for narcotic medications, and bleeding, and will be followed for as long as possible for sequelae to their injury. If further surgery becomes indicated on the involved joint, inspection of cartilage will be accomplished. Rehabilitation parameters will also be measured, thigh girth, ability to weight-lift, and the range and timing of return to active duty or productive employment will be ascertained.

Progress: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Nothing has been accomplished. There is much competition for the continuous passive motion devices which are in use virtually nonstop. Attrition by mechanical breakdown of these devices still leaves a shortage of the number of machines needed to go on with the study.
Detail Summary Sheet

Prot No: 25H/84 Status: Ongoing

TITLE: Comparison of Braces in Anterior Cruciate Deficient Knees

Principal Investigator: COL Michael M. Romash, MC
Associate Investigators: CPT Harald J. Henningsen, MC

Department/Section: Surgery/Orthopedic

Key Words: knee braces; anterior cruciate deficient knees

Funding: FY 84: $300. FY 85: $16,462. Periodic Review Date: June 85
Gifts: None Decision: Continue

OBJECTIVE: To compare several available knee braces on the basis of knee function and patient preference in anterior cruciate deficient knees.

TECHNICAL APPROACH: Ten patients with unstable knees will be fitted with at least seven various knee braces. A series of controlled exercise drills will be set up and used to assess patient function utilizing each brace. Times from each exercise will then be used to compare the patient's performance in each brace and without bracing. These exercises will be designed to test mobility, agility, and strength of the patient. Each patient will train on the course at his convenience. Braces will be issued to the volunteers in a random fashion.

PROGRESS: No. of Subjects Enrolled - To Date: 8 Reporting Period: 8

After extraordinary delay in procurement branch, the patients were fitted with their braces. The inability of procurement section to respond in a timely fashion continues to impede progress as their delay in paying bills has caused some suppliers to withhold braces. The subjects are being tested on the functional course and examined with the KT1000 knee ligament arthrometer.
**Detail Summary Sheet**

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<tr>
<td><strong>TITLE:</strong> A Double-Blind Study of Prophylactic Antimicrobial Use (Nitrofurantoin Macrocrystals) in Outpatient Cystourethroscopies</td>
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<tr>
<td><strong>Principal Investigator:</strong> MAJ Farhad Sateri, MC</td>
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<tr>
<td><strong>Associate Investigators:</strong> COL Douglas W. Soderdahl, MC</td>
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<td><strong>Department/Section:</strong> Surgery/Urology</td>
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<td><strong>Key Words:</strong> cystourethroscopies</td>
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<td><strong>Funding:</strong> FY 84: NA</td>
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<td><strong>Periodic Review Date:</strong> Decision: To be reviewed in Aug 86</td>
<td></td>
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<tr>
<td><strong>Gifts:</strong> None</td>
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**OBJECTIVE:** To verify the usefulness of the above-mentioned antibacterial agent for the prevention of urinary tract infection following cystourethroscopic examination. Our purpose is to determine whether nitrofurantoin macrocrystals can prevent or reduce the incidence of lower urinary tract infections with the symptomatology of fever, bacteriuria, and urinary retention following endoscopy.

**TECHNICAL APPROACH:** Two hundred patients who have urologic problems requiring cystourethroscopy will enter this study. On a double-blinded schedule they will enter either the test group or the placebo group. The test group will receive nitrofurantoin macrocrystals, 100 mg b.i.d. for 48 hours. All candidates will have a normal urinalysis and negative culture prior to endoscopic examination. All patients will have urinalysis and urine culture on the 1st, 3rd, and 7th days, and two weeks following the endoscopic examination. Patients must not have received antibiotics for at least one week prior to entry on the study.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

This project has not yet been started.
Detail Summary Sheet

Prot No: 22H/85

Status: Ongoing

TITLE: Flow Cytometry Network for Bladder Cancer

Principal Investigator: COL Douglas W. Soderdahl, MC

Associate Investigators: LTC William Kennon, MC; CPT Bruce Stone, MC; CPT Scott Michael, MC

Department/Section: Surgery/Urology

Key Words: bladder cancer

Funding: FY 84: NA FY 85: $300. Periodic Review Date:

Gifts: * Decision: To be reviewed in May 86

OBJECTIVE: To develop a laboratory flow cytometric network to study urinary bladder cancer.

TECHNICAL APPROACH: The application of flow cytometry to the diagnosis of cancer is still being actively investigated, and the work of this project will include evaluations for sample preparation and cell dispersal, cell fixation, and different staining techniques, as well as the implications of degrees of aneuploidy. This latter would include studies to evaluate the role of various papilloma virus in bladder cancer, to establish flow cytometry as an effective screening method in following recurrent disease, and in correlating the degree of aneuploidy with histological grade and progress.

PROGRESS: No. of Subjects Enrolled - To Date: 12 Reporting Period: 12

Work on this protocol has just begun; 12 patients have been enrolled.

*Flow cytometry to be done at the Cancer Research Center of Hawaii
**Detail Summary Sheet**

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**TITLE:** The Effect of Indomethacin on Vasopressin Levels and Postobstructive Diuresis in a Conscious Goat Model

**Principal Investigator:** CPT Bruce C. Stone, MC  
**Associate Investigators:** John R. Claybaugh, Ph.D.; Jill Sondeen, Ph.D.; CPT William S. Stokes, VC; COL Douglas Soderdahl, MC; LTC William Kennon, MC

**Department/Section:** Surgery/Urology

**Key Words:** postobstruction ADH; prostaglandin inhibitor

**Funding:** FY 84: $1,046  FY 85: $300  Periodic Review Date:  
**Gifts:** None  Decision: Completed

**OBJECTIVE:** To determine if prostaglandin synthesis inhibition in the renal medulla during postobstructive diuresis improves the renal concentration defect and correlates with changes in vasopressin levels.

**TECHNICAL APPROACH:** Bilateral internal catheters are surgically placed under anesthesia. Baseline urine and blood samples are taken via intravenous lines. Ureters are then obstructed for 48 hours to induce a diuresis. Repeat urine and blood samples are taken. Indomethacin is administered intravenously before release of obstruction in one study arm.

**PROGRESS:** No. of Subjects Enrolled - To Date: NA  Reporting Period: NA  
Project has been completed. A presentation at the Kimbrough Urologic Seminar in 1985 was awarded Honorable Mention.
Detail Summary Sheet

Prot No: 5011/85 Status: Ongoing

TITLE: Arthroscopic Evaluation of Acute Primary Shoulder Dislocations

Principal Investigator: MAJ Courtenay S. Whitman, IV., MC
Associate Investigator: MAJ John Uribe, MC

Department/Section: Surgery/Orthopedics

Key Words:
Shoulder dislocations; arthroscopy

Funding: FY 84: NA FY 85: $300.
Gifts: None Decision: To be reviewed Sep 86

OBJECTIVE: To evaluate arthroscopically the lesions associated with shoulder dislocations and correlate these lesions with prognostic indicators relative to recurrent dislocations.

TECHNICAL APPROACH: Patient referral requests will be sent to all outlying clinics requesting referral of all patients with initial shoulder dislocations documented by radiographs. Patients entered into the study will be admitted to TAMC Orthopedic Service and placed on the surgery schedule. Arthroscopy will be performed as soon as possible after the injury. Intra-articular pathology will be documented on operative findings data sheets and photographs of pathology will also be maintained in the data file for each patient. Postoperatively, patients will be placed in shoulder immobilizers for three weeks, followed by physical therapy with range of motion and shoulder bridle strengthening program for four weeks. Patients will then be progressed to full duty over a four-week period, and will be followed monthly in Sports Medicine Clinic for six months to one year, documenting clinical progress. Subsequent clinical progress and recurrent dislocation will be correlated with initial pathology documented by arthroscopy.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
Detail Summary Sheet

Prot No: 19/83  Status: Ongoing

Title: Phase II Study of Human Interferons-α (HuIFN-α (Le)) in Patients with Nasopharyngeal Carcinoma (NPC) and Determination of the Effect of IFN on Epstein-Barr virus (EBV)-related Immunological Markers

Principal Investigator: COL Donald W. S. Yim
Associate Investigators: Nathaniel Ching, M.D.; Thomas Lou, M.D.; Kevin Loh, M.D.; Meredith Pang, M.D.; Clara Ching, M.D.; Thomas Merigan, M.D.

Department/Section: Surgery/Otolaryngology
Key Words: Interferon-α; nasopharyngeal carcinoma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jun 85
Gifts: Interferon Decision: Continue

Objective:

1. To determine the objective response rate to HuIFN-α(Le) in patients with NPC.
2. To measure time and onset and duration of response.
3. To determine changes in EBV-related immunologic markers in response to IFN.
4. To determine clinical and laboratory factors that correlate with therapeutic activity.
5. To determine the toxicity of IFN in patients with NPC.

Technical Approach:
Approximately 20 patients will be enrolled in the study who have received at least two weeks of treatment with (HuIFN-α(Le). Approximately 10 patients will be entered from Hawaii. This Honolulu aspect of the study will be in collaboration with Dr. Thomas Merigan who is the principal investigator at Stanford University, and the interferon will be administered under his IND number for use of the investigational drug.

Progress:
No. of Subjects Enrolled - To Date: 1  Reporting Period: 0

This study received full approval at the SGO level in February 1984. One patient was entered on the study with special approval. No new patients have been enrolled.

Detail Summary Sheet

Prot No: 28H/84 Status: Ongoing

TITLE: The Effect of Prenatal Iron Administration on Zinc Nutriture and Pregnancy Outcome

Principal Investigator: CPT Eileen Szeto, AM
Associate Investigators: Jill Burt, Ph.D., R.D.

Department/Section: Directorate of Nutrition Care/Clinical Dietetics Branch

Key Words: zinc; pregnancy; iron

Funding: FY 84: $300. FY 85: $4,300. Periodic Review Date: Sep 85
Gifts: None Decision: Continue

OBJECTIVE: To determine if prenatal iron administration adversely affects zinc status and pregnancy outcome.

TECHNICAL APPROACH: Healthy pregnant women, without pre-existing chronic disease (to include anemia), between the ages of 18 and 35, will be recruited. Twenty-four hour typical dietary recall will be obtained during the first and third trimesters of pregnancy for determination of specific nutrient analysis (to be done by the University of Hawaii School of Public Health). Pertinent demographic information will be collected to control variables and to determine prenatal vitamin-mineral and iron compliance. Serum zinc, iron panel, and special SMAC-6 biochemical analysis will be obtained during routine prenatal blood collections for correlation this data with the dietary and biochemical parameters. Delivery outcome data will be collected to determine if prenatal iron supplementation in excess of 60 mg/day interferes with zinc nutriture and pregnancy outcome as measured by specific outcome criteria.

PROGRESS: No. of Subjects Enrolled - To Date: 519 Reporting Period: 519

To date, 519 women have been enrolled in the study. Currently, 375 women are participating, which represents a 28% dropout rate due to a variety of reason. Initial biochemical and dietary analyses correspond with results reported in similar studies in the literature. Thus far, a total of 62 women have delivered. All data (laboratory, dietary, and demographic) is checked for accuracy and entered directly into the computer system by the data processing person. Last deliveries should occur in April 1986, at which time the study will be completed. With simultaneous data entry via computer, results should be available for the final report and this should result in an expeditious summarization of findings.
Detail Summary Sheet

Prot No: 26D/84  Status: Ongoing

Title: Use of Sodium Allopurinol to Control Hyperuricemia in Patients With No Therapeutic Alternative

Principal Investigator: CPT Dominic A. Solimando, Jr., MS
Associate Investigators: COL Jeffrey L. Berenberg, MC; LTC Stephen R. Stephenson, MC; MAJ Bruce A. Cook, MC; MAJ William J. Uphouse, MC; MAJ Daniel T. Tell, MC

Department/Section: Pharmacy Service/Oncology

Key Words: Hyperuricemia; allopurinol

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Sep 85
Gifts: Allopurinol Decision: Continue

OBJECTIVE: To provide a water soluble form of allopurinol that can be given intravenously to patients with hyperuricemia who are too ill to take oral medication.

TECHNICAL APPROACH: This is a "convenience" protocol to make an uncommonly required dosage form available for use without the need for individual, special exception approval of the committee for each patient. This study also centralizes and simplifies the procedures for requesting the drug for patients. It is anticipated that 3-4 patients a year will be treated on this protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 6  Reporting Period: 5

Five patients were entered on this study between 7 November 1984 and 30 September 1985. A total of six patients have been entered on the study. Reports on all patients have been filed with Burroughs-Wellcome. Study remains open.
Detail Summary Sheet

Prot No: GOG 26(84)  Status: Terminated

TITLE: A Phase II Trial of Progesterone in the Treatment of Advanced or Recurrent Epithelial Ovarian Cancers That Have Failed Combination Chemotherapy

Principal Investigator: MAJ Enrique Hernandez, MC
Associate Investigators: COL Kunio Miyazawa, MC; COL Edward N. Raleigh, MC; COL Sam Shannon, Jr., MS

Department/Section: Obstetrics and Gynecology

Key Words: cancer, ovary

Funding: FY 84: $300. FY 85: 0  Periodic Review Date: June 85
Gifts: None  Decision: Terminate

OBJECTIVE: To determine whether epithelial ovarian cancer will respond to treatment with a hormone, C.T. Provera, administered by mouth as three tablets daily.

TECHNICAL APPROACH: Patients with epithelial ovarian carcinoma who have progressed on a first-line combination chemotherapy regimen consisting of at least two drugs will be eligible for the study. Estrogen and progesterone receptor determinations will be obtained of tumor removed at the time of primary surgery, second-look laparotomy, or from biopsy of external lesions. To be eligible, patients must have measurable disease. After informed consent, the patient will be registered with the Gynecologic Oncology Operations Office. The patient will receive C. T. Provera, 50 mg orally, three times a day.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Our liaison with GOG, The Hawaii Medical Association, has withdrawn from GOG. Therefore, TAMC's participation in GOG protocols is temporarily suspended.
OBJECTIVE: To determine whether the administration of estrogen-progesterone oral contraceptives following the evacuation of a hydatidiform mole, and prior to the HCG titer reaching undetectable levels, affects the incidence of trophoblastic sequelae requiring chemotherapy.

TECHNICAL APPROACH: Patients with a histologically verified diagnosis of hydatidiform mole with no evidence of metastasis will be randomized within two weeks of mole evacuation to hormonal contraception. At the end of 12 weeks, all patients will be evaluated for development or nondevelopment of trophoblastic sequelae. All patients will remain on the study for a minimum of six months after primary evacuation. The patients will be followed with weekly serum Beta-HCG determinations, history, and pelvic examination every two weeks and chest x-ray every four weeks. The end point will be the development or nondevelopment of trophoblastic sequelae. The patient will be judged to have no trophoblastic sequelae if a single Beta-HCG is negative by 12 weeks post-evaluation and the patient has no clinical evidence of persistent trophoblastic disease.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Our liaison with GOG, The Hawaii Medical Association, has withdrawn from GOG. Therefore, TAMC's participation in GOG protocols is temporarily suspended.
Prot No: GOG 61(84) Status: Terminated

TITLE: Phase II Randomized Study of Cisplatin Plus Cyclophosphamide Versus Hexamethylmelamine After Second-look Surgery in Non-measurable Stage III and IV Ovarian Adenocarcinoma Partially Responsive to Previous Regimens Containing Cisplatin and Cyclophosphamide.

Principal Investigator: MAJ Enrique Hernandez, MC
Associate Investigators: COL Kunio Miyazawa, MC.; COL Edward N. Raleigh, MC.; COL Sam Shannon, Jr., MS

Department/Section: Obstetrics and Gynecology

Key Words: cancer, ovary; chemotherapy

Funding: FY 84: $300. FY 85: 0 Periodic Review Date: Jun 85 Decision: Terminate

OBJECTIVE: To determine, in non-measurable but residual Stage III ovarian adenocarcinoma partially responsive after treatment with regimens containing Cis-platinum and cyclophosphamide, if the progression-free interval and survival are improved by continuing cyclophosphamide plus Cis-platinum or by changing treatment to hexamethylmelamine.

TECHNICAL APPROACH: Patients with Stage III and IV non-measurable epithelial ovarian cancer, who on second-look laparotomy are found to have residual disease of less or same volume as on the original laparotomy, will be randomized by the GOG Operations Office to Regimens 1 or 2. Regimen 1 consists of Cis-platinum, 50 mg/m², IV, every three weeks, plus cyclophosphamide, 1000 mg/m², IV, every three weeks. Regimen 2 consists of hexamethylmelamine, 280 mg/m², p.o., in divided daily doses, days 1-14 every three weeks, plus pyridoxine, 50 mg, p.o., t.i.d., daily during HMM treatment. The treatment will continue for one year or until progression.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Our liaison with GOG, The Hawaii Medical Association, has withdrawn from GOG. Therefore, TAMC's participation in GOG protocols is temporarily suspended.
Detail Summary Sheet

Prot No: GOG 77(84) Status: Terminated

TITLE: A Randomized Study of Carboplatin Versus CHIP in Advanced Carcinoma of the Cervix

Principal Investigator: MAJ Enrique Hernandez, MC
Associate Investigators: COL Kunio Miyazawa, MC; COL Edward N. Raleigh, MC; COL Sam Shannon, Jr., MS

Department/Section: Obstetric and Gynecology

Key Words: cancer, cervix; chemotherapy

Funding: FY 84: $300. FY 85: 0
Gifts: None

Periodic Review Date: Aug 85
Decision: Terminate

OBJECTIVE: To determine in a randomized study whether Carboplatin or CHIP has a superior (statistically significant) objective response rate in cervical carcinoma and to assess and compare toxicity (gastrointestinal and renal) of Carboplatin and CHIP.

TECHNICAL APPROACH: Patients who have histologically confirmed, locally advanced, recurrent, persistent, or metastatic squamous cell carcinoma of the cervix that is resistant to curative treatment with surgery or radiotherapy, and who meet all the eligibility criteria, will be randomized to one of two treatment regimens, receiving either Carboplatin or CHIP.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Our liaison with GOG, The Hawaii Medical Association, has withdrawn from GOG. Therefore, TAMC's participation in GOG protocols is temporarily suspended.
OBJECTIVE: To determine the activity of a synthetic Vitamin A derivative called 13-cis-retinoic acid in treating patients with advanced lung cancer who have failed prior chemotherapy and for whom radiation is not appropriate. If there is any available tumor tissue that was resected in the past, this may be submitted for Vitamin A receptor protein levels.

TECHNICAL APPROACH: Patients with advanced lung cancer who have failed prior chemotherapy will receive 13-cis-retinoic acid by mouth daily until their cancer progresses.

PROGRESS: No. of Subjects Enrolled - To Date: 9   Reporting Period: 7

A total of nine patients have been entered on this study. A manuscript is in preparation.
OBJECTIVE: To compare the response rate, duration of response, side effects, duration, and quality of survival in previously untreated patients with metastatic prostate cancer treated with Diethylstilbestrol or Flutamide in a prospective randomize double-blind phase III trial.

TECHNICAL APPROACH: Patients will be accessioned to the Cancer Center of Hawaii for participation in this study. The study is randomized and double-blind, and will be limited to 200 patients for all participating centers. Treatment will be indefinite depending on patient response.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Terminated at the request of the principal investigator.
Prot No: NBCCGA 1(85)  Status: Terminated

TITLE: Patterns of Care and Their Effects in Patients with Transitional Cell Carcinoma of the Bladder

Principal Investigator: COL Douglas W. Soderdahl
Associate Investigators:

Department/Section: Surgery/Urology

Key Words: carcinoma of the bladder

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date: 
Gifts: None  Decision: Terminated

OBJECTIVE: To identify the population of patients with bladder neoplasms; to categorize them and manage them as administered in the collaborating institutions; to determine the rates of recurrence and the pathogenesis of the disease; and to identify risk factors.

TECHNICAL APPROACH: Patients will be accessioned to the NBCCGA statistical center via registration forms and followed via contact reports. Evaluations will include cystoscopy and saline bladder washings, and biopsies as specified in the collaborating institutions.

PROGRESS:  No. of Subjects Enrolled - To Date: 0  Reporting Period: 0
Terminated at the request of the principal investigator.
Detail Summary Sheet

Prot No: NBCCGA 8(85)  Status: Terminated

TITLE: Phase I Trial of Cis-diammine-dichloroplatinum (II) (DDP) Confined with Small-Field Pelvic Radiation Therapy for Patients with Clinically Localized Invasive Primary Carcinoma of the Bladder Who are Unsuitable for Cystectomy

Principal Investigator: COL Douglas W. Soderdahl
Associate Investigators:
Department/Section: Surgery/Urology

Key Words: bladder carcinoma

Funding: FY 84: NA   FY 85: $300.  Periodic Review Date:
Gifts: None  Decision: Terminated

OBJECTIVE: To assess toxicity associated with concurrent therapies and to evaluate therapeutic response.

TECHNICAL APPROACH: The criteria for patient eligibility are outlined in the master protocol. All patients in this group who are deemed eligible and who agree to participate will be administered this combined drug.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0
Terminated at the request of the principal investigator.
Detail Summary Sheet

Prot No: NBCCGA 9(85)  Status: Terminated

TITLE: Phase II FAM Protocol (5-Fluorouracil, doxorubicin, Mitomycin C): Evaluation of These Agents for the Treatment of Patients with Advanced Urothelial Cancer

Principal Investigator: COL Douglas W. Soderdahl, MC
Associate Investigators:
Department/Section: Surgery/Urology

Key Words: urothelial cancer

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date:
Gifts: None  Decision: Terminated

OBJECTIVE: This protocol outlines the procedures designed to screen chemotherapeutic agents for activity in patients having advanced urothelial carcinoma.

TECHNICAL APPROACH: Patients will be accessioned to the NBCCGA statistical center via registration forms. Treatment duration is specifically defined for each drug in the master protocol. Follow-up evaluations include chest x-rays, bone scans, hematological and blood chemistry studies, bone marrow aspirations, cystoscopies and bladder biopsies, cytologies of urine and bladder workings, and physical examinations. Other studies may be included such as abdominal or head CT scans as deemed appropriate.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Terminated at the request of the principal investigator.
Detail Summary Sheet

Protocol Number: NBCCGA 10(85)  Status: Terminated

Title: Phase III Randomized Study to Compare the Ablative Effects of Thiotepa (n,n', n" Triethylenethiophosphoramide) with Mitomycin C in Patients with a Diagnosis of Superficial Bladder Carcinoma with Residual Tumor

Principal Investigator: COL Douglas W. Soderdahl, MC

Associate Investigators:

Department/Section: Surgery/Urology

Key Words: bladder carcinomas

Funding: FY 84: NA  FY 85: $300.  Perioidic Review Date:

Gifts: None  Decision:

Objective: To compare the gross ablating effects, the disease-free intervals, and the toxic effects of thiotepa with those of Mitomycin C.

Technical Approach: All patients in this group who agree to participate will be randomized by the National Bladder Cancer Collaborative Group A Statistical Center in Baltimore, MD to one of two treatments: (1) Thiotepa, 30 mg instilled intravesically each week for 8 weeks; (2) Mitomycin C, 40 mg instilled intravesically each week for 8 weeks.

Progress: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Terminated at the request of the principal investigator.
Detail Summary Sheet

Prot No: NBCCGA 11(85)    Status: Terminated

TITLE: Comparative Evaluation of a Single Dose of Intravesical Thiotepa to an Initial Dose Followed by an Intensive Maintenance Regimen of Thiotepa in the Treatment of Patients with Superficial Bladder Tumor at High Risk of Developing a Subsequent Tumor

Principal Investigator: COL Douglas W. Soderdahl, MC
Associate Investigators:

Department/Section: Surgery/Urology

Key Words: bladder tumor

Funding: FY 84: NA    FY 85: $300.    Decision: Terminated

OBJECTIVE: To determine whether a single dose of Thiotepa instilled into the bladder within 36 hours following complete endoscopic resection/fulguration of a superficial bladder tumor provides the same protection against subsequent bladder tumor as multiple course therapy.

TECHNICAL APPROACH: Patients who fulfill the eligibility criteria and who agree to participate will be randomized by the Statistical Center of the National Bladder Cancer Collaborative Group A (NBCCGA) in Baltimore, MD within three risk strata, and then to two treatment modes: (1) single instillation 60 mg Thiotepa within 36 hours of endoscopy, or (2) same treatment followed by three weekly doses of 30 mg Thiotepa and then monthly for 23 months. Assessments of response include cystoscopies and urine cytologies.

PROGRESS: No. of Subjects Enrolled - To Date: 0    Reporting Period: 0

Project terminated at the request of the principal investigator.
OBJECTIVE: To study the activity of intravesical BCT against superficial transitional cell carcinoma of the bladder.

TECHNICAL APPROACH: Patients who fulfill the eligibility criteria and who agree to participate will receive six weekly instillations of intravesical BCG (5x3x10^9 microorganisms), with evaluations four to six weeks after the last instillation using cystoscopy and biopsy. Patients who are then tumor-free will receive monthly BCG instillations for one year.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Terminated at the request of the principal investigator.
**Detail Summary Sheet**

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**TITLE:** Comparative Evaluation of Methotrexate (MTX) Alone and the Combination of Cis-Diammine-Dichloroplatinum (II) (DDP) Plus MTX in the Treatment of Patients with Advanced Carcinoma of the Bladder

**Principal Investigator:** COL Douglas W. Soderdahl, MC

**Associate Investigators:**

**Department/Section:** Surgery/Urology

**Key Words:** bladder carcinoma

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**OBJECTIVE:** To determine the relative response rates and toxicity of methotrexate alone and the combination of methotrexate and cis-diammine-dichloroplatinum (II) (DDP) in the treatment of advanced or metastatic bladder cancer.

**TECHNICAL APPROACH:** Patients fulfilling the eligibility criteria who agree to participate will be stratified according to performance data, then randomized by the Statistical Center of the National Bladder Cancer Collaborative Group A (NBCCGA) in Baltimore, MD to receive either (1) methotrexate, 40 mg/M² IV, days 1 and 15, plus DDP, 70 mg/M² IV, day 4, repeated every 21 days for three courses, or (2) methotrexate, 40 mg/M² IV every seven days for three courses.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0

Reporting Period: 0

Terminated at the request of the principal investigator.
OBJECTIVE: To assess response and toxicity of small field, high dose, external beam irradiation in patients with recurrent superficial primary bladder cancer who have failed prior endoscopic treatment and intravesical chemotherapy and/or immunotherapy.

TECHNICAL APPROACH: Patients fulfilling the eligibility criteria who agree to participate will receive radiotherapy according to the schedule in the master protocol, established by the Radiation Subcommittee and similar to the schedule that is standard for invasive bladder cancer patients receiving curative radiotherapy (total dose 6480 rads).

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Terminated at the request of the principal investigator.
Objectives:

To determine in a controlled, randomized trial, whether radical cystectomy alone confers the same protection against disease progression as does preoperative radiotherapy followed by cystectomy.

Technical Approach:

Patients who fulfill the criteria and consent to participate will be randomized by the Statistical Center of the National Bladder Cancer Collaborative Group A (NBCCGA) to be stratified according to stage, morphology, and vascular invasion, and then receive either 4800 rads in the schedule set followed by radical cystectomy or radical cystectomy alone.

Progress:

No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

Terminated at the request of the principal investigator.
Detail Summary Sheet

Prot No: NBCG 18(85) Status: Ongoing

TITLE: A Trial of Neoadjuvant Chemotherapy Followed by Combined Cisplatinum and Radiation for Patients with Localized Invasive Bladder Cancer Unsuitable for Cystectomy, Phase I/II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William J. Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS; MAJ Lawrence Sakas, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: Bladder cancer

Funding: FY 84: NA FY 85: $300. Periodic Review Date: Gifts: None Decision: To be reviewed in Sep 86

OBJECTIVE: To determine the response of unresectable bladder cancer to chemotherapy given prior to radiation.

TECHNICAL APPROACH: All patients agreeing to the study will receive two cycles of the above combination chemotherapy program, and then three cycles of cisplatinum given simultaneously with radiation therapy to the bladder.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
Detail Summary Sheet

Prot No: NSABP B11(84) Status: Closed

TITLE: A Protocol to Compare Melphalan-5-FU With and Without Adriamycin in the Management of Patients With Primary Breast Cancer and Positive Axillary Nodes Whose Tumors Are Negative for Estrogen Receptors

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC, CPT Dominic Solimando, MS
Department/Section: Medicine/Hematology-Oncology

Key Words: breast cancer

Funding: FY 84: $300 FY 85: $300 Periodic Review Date: 
Gifts: None Decision: Closed

OBJECTIVE: To determine if adding Adriamycin to two other drugs will decrease the chances of breast cancer recurring after primary surgery.

TECHNICAL APPROACH: All patients registered on this protocol are randomized to receive either (1) melphalan plus 5-FU every 6 weeks for 2 years or (2) melphalan plus 5-FU plus Adriamycin for the same time period.

PROGRESS: No. of Subjects Enrolled - To Date: 1 Reporting Period: 0

One Tripler patient has been registered on this protocol. This protocol was closed to patient entry in September 1984; 690 patients were entered nationwide. Hematologic toxicity was greater in the Adriamycin arm. Nausea and vomiting affected the majority of participants. No survival or relapse analysis was performed; this will be done in the future.
Prot No: NSABP B12(84) Status: Closed

TITLE: A Protocol to Compare Melphalan-5-FU-Tamoxifen With and Without Adriamycin in the Management of Patients With Primary Breast Cancer and Positive Axillary Nodes Whose Tumors are Positive for Estrogen Receptors

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC, CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: breast cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Gifts: None Decision: Closed

OBJECTIVE: To determine if adding Adriamycin to three other drugs will decrease the chances of breast cancer recurring after the primary surgery.

TECHNICAL APPROACH: All patients are randomized to receive one of two treatment programs: (1) Melphalan plus 5-FU plus tamoxifen every 6 weeks for 2 years or melphalan plus 5-FU plus adriamycin plus tamoxifen for the same period.

PROGRESS: No. of Subjects Enrolled - To Date: 1 Reporting Period: 0

One Tripler patient has been registered on this protocol. Nationally, this protocol accrued a very large number of patients and was closed to entry in September 1984. Hematologic and gastrointestinal toxicity was greater on the Adriamycin-containing arms. The study has not been analyzed yet for relapse differences. Full analysis will follow over the next years.
TITLE: A Protocol to Assess Sequential Methotrexate-5-FU in Patients with Primary Breast Cancer and Negative Axillary Nodes Whose Tumors Are Negative for Estrogen Receptor

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS; MAJ Daniel Tell

Department/Section: Medicine/Hematology-Oncology

Key Words: breast cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Nov 84

Gifts: Fluorouracil and Leucovorin Decision: Continue

OBJECTIVE: To determine if giving a relatively nontoxic chemotherapy program to women after surgery will decrease the chances of relapse and improve survival.

TECHNICAL APPROACH: All eligible patients are randomized to receive (1) chemotherapy with 5-FU and methotrexate twice a month for 1 year or (2) no treatment.

PROGRESS: No. of Subjects Enrolled - To Date: 6 Reporting Period: 3

A total of six Tripler patients have been registered on this protocol. The number of patients accrued nationally has been good; 297 patients have been randomized. Hematologic toxicity has been mild. Gastrointestinal toxicity (nausea, vomiting, diarrhea, and stomatitis) has been noted, but not life-threatening. There is no available data on relapse.
OBJECTIVE: To determine if Tamoxifen given to women after surgery for breast cancer will prolong survival and prevent recurrences.

TECHNICAL APPROACH: All patients who are eligible are randomized to tamoxifen p.o. for 4 years or placebo p.o. for 4 years.

PROGRESS: No. of Subjects Enrolled - To Date: 3 Reporting Period: 0

Three patients have been entered on this study from Tripler. Accrual of patients has been excellent nationally; 862 eligible patients have been randomized. Toxicity reported has been mild gastrointestinal and menopausal symptoms. Treatment arms are coded and there is no obvious differences. No data is available on relapse.
Detail Summary Sheet

Prot No: NSABP B15(84)  Status: Ongoing

TITLE: A Three-Arm Clinical Trial Comparing Short Intensive Chemotherapy With or Without Reinduction Chemotherapy to Conventional CMF in Receptor-Negative Positive-Node Breast Cancer Patients

Principal Investigator:  COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; LTC Joseph Woods, MC; CPT Dominic Solimando, MS

Department/Section:  Medicine/Oncology-Hematology

Key Words:  breast cancer

Funding:  FY 84: $300. FY 85: $300. Periodic Review Date:  Decision: To be reviewed Ma. 1986

OBJECTIVE: To determine if a short course of chemotherapy in the adjuvant setting is as effective as the "standard" six months of CMF. Also, to determine if a later "reinduction" will improve survival.

TECHNICAL APPROACH: Patients agreeing to participate will be randomized to one of three treatment groups: (1) Adriamycin and Cytoxan for four cycles, (2) Adriamycin and Cytoxan as above, then, after six months of rest, three cycles of CMF, or (3) six cycles of CMF ("standard" therapy).

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

No patients entered at Tripler. Nationally, 26 patients entered. One patient developed an allergic reaction which is a known complication.
Detail Summary Sheet

Prot No: NSABP B16(84)  Status: Ongoing


Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; LTC Joseph Woods, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Oncology-Hematology

Key Words: breast cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: 
Gifts: Fluorouracil, Tamoxifen, Alkeran Decision: To be reviewed in Jan 86

OBJECTIVE: To determine if chemotherapy added to tamoxifen is superior to tamoxifen alone in the adjuvant therapy of receptor-positive breast cancer. Also, to determine which of two chemotherapy regimens, when added to tamoxifen, results in the best survival.

TECHNICAL APPROACH: Patients agreeing to participate in this study will be randomized to one of three treatments: (1) tamoxifen alone for four years, (2) tamoxifen for four years, plus four cycles of Adriamycin and Cytoxan, or (3) tamoxifen for four years, plus L-PAM and 5-FU every six weeks for 17 courses.

PROGRESS: No. of Subjects Enrolled - To Date: 1  Reporting Period: 1

One Tripler patient entered to date. It is too early for any analyses. No national data is available.
TITLE: A Clinical Trial Evaluating the Postoperative Portal Vein Infusion of 5-FU and Heparin in Patients with Resectable Adenocarcinoma of the Colon

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse MC; CPT Dominic Solimando, MS; COL Peter J. Barcia, MC; LTC Margaret Lee, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: colon adenocarcinoma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: None Decision: Continue

OBJECTIVE: To determine if 5-FU infused through the portal vein for one week postoperatively will decrease the recurrence rate of operable adenocarcinoma of the colon in comparison to a control group given no therapy.

TECHNICAL APPROACH: Patients who appear to have Dukes A, B, or C colon cancer and who agree to participate will be randomized preoperatively to receive a 5-FU and heparin infusion via the portal vein for 7 days postoperatively or to receive no further therapy.

PROGRESS: No. of Subjects Enrolled - To Date: 7 Reporting Period: 5

Seven Tripler patients have been entered to date. Nationally, 143 patients were randomized. Preliminary toxicity analysis indicates no bone marrow or surgical toxicity.
Detail Summary Sheet

Prot No: POG 7837 (81)  Status: Ongoing

TITLE: Evaluation of Systemic Therapy for Children with T-Cell Acute Lymphatic Leukemia, Phase II

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC
Department/Section: Pediatrics/Hematology-Oncology

Key Words: Leukemia, T-cell

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: None Decision: Continue

OBJECTIVE: To determine the effectiveness of aggressive treatment of T-cell acute lymphatic leukemia and to determine which of two protocols is most effective with the least amount of side effects.

TECHNICAL APPROACH: Children with T-cell leukemia are eligible. Treatment as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 269  Reporting Period: 0

This protocol was activated 1 Apr 79. Total patient accrual to date is 269. One patient was registered from TAMC in FY 82. This is a modified protocol as of July 1981 with the exclusion of a previous randomized treatment arm #1 because of early poor response. Protocol has continued since July 1981 as a nonrandomized study with particular attention paid to the response of certain T-cell patient subgroups. Results of treatment arms are preliminary at this date with overall 90% induction rate and 50% 30-month survival. Cell marker studies show that ER-, PT+ patients have improved survival over ER+, PT+ patients (70% vs 50% survival, P = 0.01). The study remains open for accrual of new patients.
OBJECTIVE: To compare two forms of treatment. At the present time there is no evidence that either of these treatment programs is superior and the purpose of the study is to compare the response to treatment, duration of disease control, and side effects which result from the treatment.

TECHNICAL APPROACH: All patients 21 years of age or under with diagnosis of rhabdomyosarcoma or of undifferentiated sarcoma are eligible. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 2  Reporting Period: 0

This protocol was activated 1 Nov 78. Total patient accrual to date is 1017. Two patients have been registered from TAMC. In general, for nonmetastatic disease there is no significant difference in survival over the previous protocol. The actual survival rate for both Stage I and II approaches 100%. For advanced rhabdomyosarcoma the more aggressive staging and chemotherapeutic treatment regimens adopted in IRS-II are showing significant improvement in 5-year survival, from 45% to 60%. There is no difference between the two treatment arms; therefore, Adriamycin did not improve prognosis in this study. The protocol was closed to patient entry on 1 December 1984.
**Detail Summary Sheet**

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<tr>
<th>Prot No:</th>
<th>POG 7909(82)</th>
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<tr>
<td><strong>TITLE:</strong></td>
<td>Evaluation of MOPP Adjuvant Chemotherapy in the Treatment of Localized Medulloblastoma and Ependymoma</td>
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<tr>
<td>Principal Investigator:</td>
<td>LTC Stephen R. Stephenson, MC</td>
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<tr>
<td>Associate Investigators:</td>
<td>MAJ Bruce A. Cook, MC</td>
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**OBJECTIVE:** To study the effect of surgery and radiation therapy on medulloblastoma or ependymoma and to determine whether the addition of the MOPP chemotherapy drugs to the surgery and radiation therapy improves the success rate in treating these tumors.

**TECHNICAL APPROACH:** Children diagnosed as having medulloblastoma or ependymoma are eligible. Treatment will be as outlined in the study protocol.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered into this protocol as yet.
OBJECTIVE: To determine the effect of chemotherapy of Wilms' tumor and to determine which chemotherapy schedule is best. This study is also designed to determine if radiation therapy is necessary when the tumor has been completely removed and in what dosage.

TECHNICAL APPROACH: Children diagnosed as having Wilms' tumor are eligible. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 4    Reporting Period: 1

This is a national protocol comprised of patients from several cancer study groups. As such, the data represent cumulative figures for these various groups and not specifically for POG patients. This protocol was activated 5 Jan 79. As of May 1983, 1,300 patients have been registered, of which 40% have completed two years on study. Three patients have been registered from TAMC, none in FY 84. This important study has demonstrated several important advances that will allow less therapy to be given to Wilms' tumor patients. (1) Stage I patients do well with only 10 weeks vs 6 months of therapy. (2) Radiotherapy does not improve results in Stage II or III patients. (3) In Stage III patients, the addition of a third drug (Adriamycin) improves survival. However, 1000R is as effective as 2000R in local disease control. (4) In Stage IV disease, a 3-drug regimen is as effective as a 4-drug regimen.
OBJECTIVE: To compare the results of treatment of the various subtypes.

TECHNICAL APPROACH: Pediatric patients and adolescent patients under 18 years of age are eligible.

Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 4 Reporting Period: 2

This protocol was activated (opened for patient entry) 29 May 81 and revised 20 Nov 81. Total patient accrual to date is 1,266. Four TMC patients have been registered, two in FY 85. Data from this extremely complicated protocol is just beginning to be analyzed. Sub-classification data has yielded valuable prognostic information concerning lymphocyte subgroups such as B-cell ALL. The major thrust of the protocol continues to be to correlate laboratory subgrouping of acute lymphoid leukemias with response to therapy and tailoring of therapy to deal with those subgroups that are recognized to have a poorer prognosis. Subtype incidence: "null", 64%; Pre B, 18%; T, 16%; B, 2%.

Complete remission rates: good risk, 97%; poor risk, 93%.
Detail Summary Sheet

Prot No: POG 8101(82) Status: Ongoing

TITLE: Acute Nonlymphocytic Leukemia (ANLL) in Children (Phase III)

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC

Department/Section: Pediatrics/Hematology-Oncology

Key Words: Leukemia, nonlymphocytic

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: 5-Azacytidine Decision: Continue

OBJECTIVE: To determine the effect of combination chemotherapy and radiation therapy to the brain on acute nonlymphocytic leukemia and to determine which of the combinations gives the best results with the fewer side effects.

TECHNICAL APPROACH: Patients less than 21 years of age with the diagnosis of acute leukemia other than lymphoblastic are eligible. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 2 Reporting Period: 0

This study was activated 20 Jun '81 and 169 patients have been accrued. Two patients were entered from TAMC in FY 83. To date, induction arm 1 has been shown to be superior over the non-anthracycline induction arm 2 (87% vs 69%). Induction arm 2 has been deleted. It is too early to evaluate the effect of the maintenance regimens.
Detail Summary Sheet

Prot No: POG 8104(83) Status: Ongoing

TITLE: Comprehensive Care of the Child with Neuroblastoma: A Stage and Age Oriented Study, Phase III

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC
Department/Section: Pediatrics/Hematology-Oncology

Key Words: neuroblastoma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: VM-26 Decision: Continue

OBJECTIVE: Attempts to reduce later complications by separating by age and stage those patients that require surgery only; surgery and chemotherapy; surgery, chemotherapy, and radiation therapy, etc.

TECHNICAL APPROACH: Pediatric patients and adolescent patients under the age of 18 with neuroblastoma are eligible for enrollment in this study. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 4 Reporting Period: 1

This study was activated nationally on 20 Nov 81. To date, 422 patients have been entered, four from TAMC in FY 84 and 1 in FY 85. This is a very complex study with seven subcategories of treatment. To date, the induction rates for the two chemotherapy regimens are very similar. Stage A patients have done very well with only 5% relapsing following surgery and staging. In advanced disease (Stage 4), survival remains at 20% regardless of induction regimen. Currently, these patients are being considered for HLA compatible or autologous transplant under a new protocol, POG 8340, with improvement of survival to the 50% range.
**Detail Summary Sheet**

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<tr>
<td><strong>TITLE:</strong></td>
<td>High-Dose Cyclophosphamide/High-Dose Methotrexate with Coordinated Triple Intrathecal Therapy for Stages III and IV nonlymphoblastic Lymphoma</td>
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<tr>
<td>Principal Investigator:</td>
<td>LTC Stephen R. Stephenson, MC</td>
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<td>MAJ Bruce A. Cook, MC</td>
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**OBJECTIVE:** To determine the effect of high-dose cyclophosphamide/high-dose methotrexate with coordinated triple intrathecal therapy for stages III and IV nonlymphoblastic lymphoma.

**TECHNICAL APPROACH:** Pediatric patients and adolescent patients under 18 years of age with stage III and IV nonlymphoblastic lymphoma are eligible for enrollment in this study. Treatment will be as outlined in the study protocol.

**PROGRESS:** No. of Subjects Enrolled - To Date: 2 Reporting Period: 0

This protocol was activated nationally on 20 Jan 82 and has accrued 117 patients. Two TAMC patients were registered in FY 83. There are only very preliminary results available at this time. Induction results reveal 72% CR and 25% PR. Severe induction toxicity has led to the altering of induction chemotherapy by decreasing the high dose Cytoxan to a single dose each cycle. Results of randomizing to a short or long maintenance will not be reported until all currently registered patients are randomized.
Detail Summary Sheet

Prot No: POG 8107(83)  Status: Ongoing

TITLE: Multi-institutional Controlled Trial of Adjuvant Chemotherapy in the Treatment of Osteosarcoma, Phase III

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC

Department/Section: Pediatrics/Hematology-Oncology

Key Words: osteosarcoma

Funding: FY 84: $300.  FY 85: $300.  Periodic Review Date: Aug 85
Gifts: Methotrexate; Leucovorin  Decision: Continue

OBJECTIVE: To determine the role of chemotherapy in the treatment of this disease, and to determine the best timing of chemotherapy.

TECHNICAL APPROACH: Pediatric patients under 18 years of age with osteosarcoma are eligible for enrollment in this study. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 3  Reporting Period: 2

This very important study was opened nationally on 20 Jun 82 and has accrued 178 patients. One TAMC patient was entered in FY 84 and 2 in FY 85. Disease-free survival is already very significant with 65% of chemotherapy patients versus 17% of the surgery only patients remaining free of metastatic disease.
OBJECTIVE: To determine the effectiveness, if any, of the chemotherapy drug Cis-Platinum on brain tumors that have recurred after previous therapy.

TECHNICAL APPROACH: Pediatric patients under the age of 18 years who have recurrent brain tumor. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered into this protocol as yet.

Detail Summary Sheet

Prot No: POG 8140(83) Status: Closed
TITLE: Cis-Platinum in Recurrent Brain Tumors, Phase II
Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC
Department/Section: Pediatrics/Hematology-Oncology
Key Words: Brain tumor, recurrent
Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 75
Gifts: None Decision: Closed
Detail Summary Sheet

Prot No: POG 8158(83)  
Status: Ongoing

TITLE: NWTS Long Term Follow-up Study

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC

Department/Section: Pediatrics/Hematology-Oncology

Key Words: Wilm's tumor

Funding: FY 84: $300.  FY 85: $300.  Periodic Review Date: Aug 85
Gifts: None  Decision: Continue

OBJECTIVE: To examine the late consequences of successful treatment given for Wilm's tumor.

TECHNICAL APPROACH: Pediatric patients and adolescent patients under 18 years of age with Wilm's tumor. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

No TAMC patients have been entered into this protocol as yet.
OBJECTIVE: To evaluate response and toxicity of this drug in children with recurrent malignant solid tumors unresponsive to standard therapy.

TECHNICAL APPROACH: Pediatric patients and adolescent patients under 18 years of age are eligible. Treatment will be as outlined in the study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been enrolled in this study.
TITLE: Combination Chemotherapy for First Bone Marrow and/or Testicular Relapse of Childhood Acute Lymphoblastic Leukemia (ALL) During or Shortly Following Initial Continuation Therapy (Simal 3), Phase III

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC; LTC M. Ordonez-Schneider, MC; CPT Dominic Solimando, MSC

Department/Section: Pediatrics/Hematology-Oncology

Key Words: Leukemia, acute lymphocytic

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 95
Gifts: None Decision: Continue

OBJECTIVE: To determine the effectiveness of two aggressive induction regimens and two maintenance regimens in recurrent acute lymphocytic leukemia.

TECHNICAL APPROACH: All patients less than 21 years of age bone marrow or occult testicular relapse after three years of remission and patients with CNS relapse (on or off therapy) are eligible. Treatment will be as outlined in the protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0
No TAMC patients have been entered to date.
**Detail Summary Sheet**

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<td>TITLE:</td>
<td>Study of MTX Pharmacology During ALL Maintenance Therapy</td>
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<tr>
<td>Principal Investigator:</td>
<td>LTC Stephen R. Stephenson, MC</td>
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<td>Associate Investigators:</td>
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<td>Key Words:</td>
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**OBJECTIVE:** To determine whether the levels of red cell methotrexate and folate can be correlated with remission duration.

**TECHNICAL APPROACH:** This is a study of methotrexate pharmacology during maintenance therapy of children with acute lymphocytic leukemia.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No patients have been entered on this protocol due to HSC guidelines restricting pediatric research that has "no direct patient benefit."
OBJECTIVE: This study is directed toward comprehensive care of the child with Ewing's Sarcoma. Several questions are being asked in this study, but there are essentially two major points to the investigation: (1) Do sequential cyclophosphamide and Adriamycin produce complete or partial responses as well as group and historical controls? (2) Is local tumor control achieved as well with radiation therapy to a small field (tumor plus margin) as compared to the standard whole bone field?

TECHNICAL APPROACH: After initial induction chemotherapy, patients are evaluated to assess completeness of response. Patients are then randomized to small field or whole bone radiation.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered as yet.
**Detail Summary Sheet**

**Prot No:** POG 8361(84)  
**Status:** Ongoing

**TITLE:** VP 16-213 and 5-Azacytidine in Combination For Refractory Acute Nonlymphocytic Leukemia (ANLL), Phase II

**Principal Investigator:** LTC Stephen R. Stephenson, MC  
**Associate Investigators:** MAJ Bruce A. Cook, MC; CPT Dominic Solimando, MS  
**Department/Section:** Pediatrics/Hematology-Oncology

**Key Words:** Leukemia, nonlymphocytic

**Funding:** FY 84: $300. FY 85: $300.  
**Periodic Review Date:** Aug 85

**Gifts:** VP-16  
**Decision:** Continue

**OBJECTIVE:** Patients with ANLL under 21 years of age with disease refractory to standard drugs will be given a combination of nonstandard drugs shown to be effective in pilot studies. The objective is to improve response in these patients.

**TECHNICAL APPROACH:** This phase II study will test whether increasing the dose of VP-16 will produce hypoplasia in two versus three courses and improve response.

**PROGRESS:** No. of Subjects Enroled - To Date: 0  
**Reporting Period:** 0

No TAMC patients have been entered as yet.
OBJECTIVE: This is a nonrandomized trial employing four drugs: Cis-platinum, VM-26, Cytoxan, and Adriamycin. This study is intended to test the efficacy of these four drugs against advanced, Stage D, disease.

TECHNICAL APPROACH: A nonrandomized study comparing a four-drug induction to the two-drug induction regimens in the previous study.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered to date.
OBJECTIVE: To study environmental exposures within hereditary and nonhereditary subgroups of Wilm's tumor to better understand the role that genetic-environmental factors play in the development of Wilm's tumor.

TECHNICAL APPROACH: All patients entered in the National Wilm's Tumor Study (NWTS) protocol are eligible. Data will be collected with a self-administered questionnaire and this data will be correlated with biologic data from the NWTS forms.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
OBJECTIVE: This study will employ VM-26 with continuous infusion ARA-C in an attempt to induce marrow remission in children with ALL who fail initial chemotherapy induction. This protocol will also look at drug resistance as correlated with the presence or absence of cell surface resistance associated protein and gene amplification of dihydrofolate reductase.

TECHNICAL APPROACH: Nonrandomized study of intensive therapy in a high-risk group of ALL patients. Included is a biologic evaluation of the clinically resistant tumor cells to determine if induction failures can be predicted or prevented in future front-line studies.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered to date.
DETAIL SUMMARY SHEET

Prot No: POG 8462(85) Status: Ongoing

TITLE: ICRF-187 in Children with Solid Tumors or Acute Leukemia, Phase II

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC.; CPT Dominic Solimando, MSC

Department/Section: Pediatrics/Pediatric Hematology-Oncology

Key Words: solid tumors; leukemia, acute

Funding: FY 84: NA FY 85: $300. Periodic Review Date: 0
Gifts: ICRF-187 Decision: To be reviewed in Sep 86

OBJECTIVE: To determine (1) the therapeutic efficacy of ICRF-187 in the treatment of children with leukemia or solid tumors and (2) the qualitative and quantitative toxicity to children given the drug daily for three days every three weeks.

TECHNICAL APPROACH: All patients agreeing to participate in the study will be treated with the same regimen.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
TITLE: Phase II Study of Carboplatin in the Therapy of Children with Progressive or Recurrent Brain Tumors

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC; CPT Dominic Solimando, MS

Department/Section: Pediatrics/Pediatric Hematology-Oncology

Key Words: brain tumor

Funding: FY 84: NA FY 85: $300. Periodic Review Date:
Gifts: Carboplatin Decision: To be reviewed in Sep 86

OBJECTIVE: To determine the effectiveness of carboplatin in the treatment of children with brain tumors unresponsive to standard therapy, and to further evaluate the toxicities of the drug.

TECHNICAL APPROACH: All patients agreeing to participate in the study will receive (1) audiogram prior to each course of chemotherapy (if the patient is over 3 years of age and cooperative), and (2) Carboplatin to be given IV over one hour, preceded and followed by one hour of intravenous hydration.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
OBJECTIVE: To study biologic differences of acute lymphocytic leukemia (ALL) in infants and improve the very poor disease-free survival in this group. A major objective is to identify toxicities and determine criteria for dose modification in infants.

TECHNICAL APPROACH: All patients will be treated with the same regimen and response rates will be compared to 75 controls from POG's previous ALL studies.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

This protocol was approved in September 1985.
Detail Summary Sheet

Prot No: POG 8552(85) Status: Ongoing

TITLE: A Case Control Study of Childhood Rhabdomyosarcoma

Principal Investigator: LTC Stephen R. Stephenson, MC
Associate Investigators: MAJ Bruce A. Cook, MC

Department/Section: Pediatrics/Pediatric Hematology-Oncology

Key Words: rhabdomyosarcoma

Funding: FY 84: NA FY 85: $300. Periodic Review Date:
Gifts: None Decision: To be reviewed in Sep 86

OBJECTIVE: To evaluate the relationships between environmental exposures, gestational factors, and genetic factors in childhood rhabdomyosarcoma.

TECHNICAL APPROACH: Data will be collected by telephone interview conducted by the Intergroup Rhabdomyosarcoma Group and by a questionnaire. These data will be correlated with biologic data collected from treatment protocol forms.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
Detail Summary Sheet

Prot No: SWOG 7804  Status: Ongoing

TITLE: Adjuvant Chemotherapy with 5-FU, Adriamycin and Mitomycin C (FAM) versus Surgery Alone for Patients with Locally Advanced Gastric Adenocarcinoma, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS; COL Peter J. Barcia, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: gastric adenocarcinoma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 86
Gifts: None Decision: Continue

OBJECTIVE: To determine whether or not chemotherapy (FAM) given to patients with advanced but resected gastric carcinoma will prevent relapses and prolong life.

TECHNICAL APPROACH: Patients will be randomized to either (1) receive chemotherapy with FAM twice a month for 1 year or (2) receive no treatment.

PROGRESS: No. of Subjects Enrolled – To Date: 1 Reporting Period: 0

There is only one TAMC patient on this study. It remains open with acceptable toxicity.
Prot No: SWOG 7808(83)  Status: Ongoing

TITLE: Combined Modality Treatment for Stage III and IV Hodgkin's Disease - MOPP 6, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS; MAJ Marylin P. Ordonez, MC; MAJ Aida Ronquillo, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: Hodgkin's disease

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Nov 84
Gifts: None  Decision: Continue

OBJECTIVE: To determine if radiation therapy given after the chemotherapy will increase the chance of being cured, and to see if a drug called levamisole given as a pill will increase the chance of being cured.

TECHNICAL APPROACH: As outlined in study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 13  Reporting Period: 1

National accrual is 489. One patient was entered at TAMC over the past year, making a total of 13 TAMC patients in this study.
OBJECTIVE: To determine if chemotherapy given over a 2-month period will decrease the relapse rate and improve survival in patients with testicular cancer which has spread to the retroperitoneum (but has been removed surgically).

TECHNICAL APPROACH: Patients with retroperitoneal involvement will be randomized to the two months of chemotherapy (after the surgery) or to no further treatment.

PROGRESS: No. of Subjects Enrolled - To Date: 4 Reporting Period: 0

Four Tripler patients have been entered on this study to date. No new patients were entered this year. This study was closed to patient entry on March 22, 1985.
**Detail Summary Sheet**

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<th>Prot No: SWOG 8001(84)</th>
<th>Status: Closed</th>
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**TITLE:** Evaluation of Two Maintenance Regimens in the Treatment of Acute Lymphoblastic Leukemia in Adults, Phase III

**Principal Investigator:** COL Jeffrey Berenberg, MC

**Associate Investigators:** MAJ William Uphouse, MC; MAJ Daniel Tell, MC; CPT Dominic Solimando, MS

**Department/Section:** Medicine/Hematology-Oncology

**Key Words:** leukemia, lymphoblastic

**Funding:** FY 84: $300. FY 85: $300.

**Gifts:** None

**Periodic Review Date:**

**Decision:** Closed

**OBJECTIVE:** To compare two maintenance chemotherapy regimens (LIO and POMP) in terms of response, duration, and survival.

**TECHNICAL APPROACH:** All patients agreeing to participate in this study will receive the same weekly induction and consolidation therapy with prednisone, vincristine, and Adriamycin, but will then be randomized to receive either the LIO or POMP regimens for maintenance (for 36 months).

**PROGRESS:** No. of Subjects Enrolled - To Date: 1 Reporting Period: 0

One Tripler patient has been entered on this study to date. Study closed March 22, 1985. No new TAMC patients were admitted to the study this year. Interim results show a median survival of 18.5 months, which is comparable to prior regimens used in adult ALL.
Detail Summary Sheet

Prot No: SWOG 8049(84) Status: Ongoing

TITLE: The Treatment of Resected Poor Prognosis Malignant Melanoma Stage I: Surgical Excision Versus Surgical Excision + Vitamin A, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: melanoma, malignant

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 85
Gifts: None Decision: Continue

OBJECTIVE: To determine if vitamin A given daily by mouth will decrease the relapse rate and improve survival in patients who have had poor prognosis melanomas completely resected.

TECHNICAL APPROACH: Patients with melanomas that extend deeper than .76 mm and that have been completely resected are randomized to receive vitamin A daily by mouth for 18 months or to receive no therapy.

PROGRESS: No. of Subjects Enrolled - To Date: 9 Reporting Period: 1

A total of 260 patients have been entered on this study. TAMC has registered one this year and has a total of nine patients on the study. There has been no serious toxicity reported. Interim results are no longer provided for open studies.
Detail Summary Sheet

Prot No: SWOG 8104(83)  Status: Ongoing

TITLE: Treatment of Advanced Seminoma (Stage CII(N4) + CIII) with Combined Chemotherapy and Radiation Therapy, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William J. Uphouse, MC; CPT Dominic Solimando, MS
                       MAJ Marylin Ordonez; MAJ Aida Ronquillo, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: seminoma

Funding: FY 84: 300. FY 85: $300. Periodic Review Date: Nov 84
Gifts: None Decision: Continue

OBJECTIVE: To determine if combined chemotherapy and radiation therapy is more effective in treatment of advanced seminoma than radiation therapy alone.

TECHNICAL APPROACH: As outlined in study protocol.

PROGRESS: No. of Subjects Enrolled - To Date: 2  Reporting Period: 0

No new TAMC patients have been admitted to this study this year. Accrual remains poor. No interim results were provided at the last group meeting. Study will remain open nationally.
OBJECTIVE: To determine the relative activity of 3 chemotherapy programs in patients with metastatic melanoma: (1) DTIC and Actinomycin-D (2) Cis-platinum and (3) Cis-platinum, Velban, and Bleomycin. In addition, to determine if prophylactic cranial irradiation will prevent the later development of brain metastases.

TECHNICAL APPROACH: Patients with metastatic melanoma are randomized to receive or not to receive 5 days of prophylactic cranial radiation. They are also randomized to receive one of the three chemotherapy programs listed above.

PROGRESS: No. of Subjects Enrolled - To Date: 6 Reporting Period: 0

Six patients from Tripler have been entered. No new TAMC patients have been entered this year. The phase II portion of this study was closed October 1984. The phase III portion of the study remains open to accrual.
Detail Summary Sheet

Prot No: SWOG 8122(84) Status: Closed

TITLE: Combined Modality Treatment of Extensive Small Cell Lung Cancer, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS; MAJ Marilyn Ordonez, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: lung cancer, small cell

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 85
Gifts: None Decision: Closed

OBJECTIVE: To compare two chemotherapy programs for the treatment of small cell lung cancer that has metastasized outside of the chest.

TECHNICAL APPROACH: The patients in this study are randomized to receive either the "standard" three drugs (CAV) or the new four-drug program (BTOC).

PROGRESS: No. of Subjects Enrolled - To Date: 4 Reporting Period: 0

Four patients have been entered to date from Tripler. No new TAMC patients have been entered in the study. The study was closed March 22, 1985. An update at the most recent SWOG Meeting reported no difference in survival between the various treatment arms of this study.
Detail Summary Sheet

Prot No: SWOG 8124/25/26(84) Status: Ongoing

TITLE: Treatment of Acute Nonlymphocytic Leukemia with Conventional Induction, Consolidation Chemotherapy: Maintenance with Chemotherapy Versus Bone Marrow Transplantation, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: leukemia, nonlymphocytic

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 85

Gifts: None Decision: Continue

OBJECTIVE: This study is twofold. First, it seeks to determine whether further chemotherapy or whether bone marrow transplantation is best for patients who achieve complete remission with initial chemotherapy. Second, it seeks to determine whether maintenance chemotherapy is superior to no maintenance chemotherapy in patients who successfully complete 3 months of initial chemotherapy.

TECHNICAL APPROACH: After the patient achieves complete remission, he or she is randomized to receive a bone marrow transplant (if the patient has an appropriate donor and agrees to this) or to receive consolidation chemotherapy. Patients who complete the 2 months of consolidation chemotherapy are then randomized to receive or not to receive maintenance chemotherapy.

PROGRESS: No. of Subjects Enrolled - To Date: 3 Reporting Period: 1

There are three TMC patients on this study. No new patients have been entered during the past year. There are 530 patients on this study nationally and early deaths have continued to be a problem. Nevertheless, responses and survival data remain comparable to standard therapy and the study remains open for accrual.
Objective: To determine the activity of a new drug, Spirogermanium, in patients with metastatic prostate cancer who have failed prior hormonal therapy.

Technical Approach: All patients will receive the drug IV three times a week until their disease progresses.

Progress: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

Closed March 22, 1985. No TAMC patients are registered. Of 43 patients registered, there was one partial response and five with stable disease.
Detail Summary Sheet

Prot No: SWOG 8228(85)  Status: Ongoing

TITLE: Correlation Between Progesterone Receptor and Response to Breast Cancer, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: breast cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Decision: To be reviewed in Jan 86

OBJECTIVE: To determine if progesterone receptor level correlates with response of breast cancer to tamoxifen treatment.

TECHNICAL APPROACH: All patients agreeing to this study will receive p.o. tamoxifen until their cancer progresses.

PROGRESS: No. of Subjects Enrolled - To Date: 1 Reporting Period: 1

Only one TAMC patient has been registered on this study. There are 216 patients registered nationally. There has been no unanticipated toxicity and the study remains open to accrual.
OBJECTIVE: To compare the effectiveness of two chemotherapy programs for the treatment of small cell lung cancer that is clinically limited to one hemithorax.

TECHNICAL APPROACH: All patients eligible will receive either the four-drug combination (EVAC) or a three-drug regimen: VAC (the three-drug regimen is alternated with two other drugs listed above).

PROGRESS: No. of Subjects Enrolled - To Date: 5 Reporting Period: 2

There are five TAMC patients on this study. The study was closed on October 7, 1984. An analysis of the response and survival data reveals no difference between the two treatment arms at present.
**Detail Summary Sheet**

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**TITLE:** Evaluation of Continuous Infusion Vinblastine in Pancreatic Adenocarcinoma, Phase II

**Principal Investigator:** COL Jeffrey Berenberg, MC  
**Associate Investigators:** MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS

**Department/Section:** Medicine/Hematology-Oncology

**Key Words:** pancreatic adenocarcinoma

**Funding:** FY 84: $300. FY 85: $300.  
**Gifts:** None  
**Periodic Review Date:**  
**Decision:** Closed

**OBJECTIVE:** To determine the response rate to vinblastine given by constant infusion in advanced pancreatic carcinoma.

**TECHNICAL APPROACH:** All patients agreeing to this study will receive vinblastine by constant I.V. infusion for five days every three weeks.

**PROGRESS:**  
No. of Subjects Enrolled - To Date: 0  
Reporting Period: 0

TAMC has not entered any patients in this study. The study was closed March 22, 1985. Nationally, 34 patients were entered. They had a median survival of two months. Response data has not been presented.
**OBJECTIVE:** To determine the relative activity of five chemotherapy programs for the treatment of metastatic non-small (oat) cell lung cancer.

**TECHNICAL APPROACH:** Patients with non-small cell lung cancer that is metastatic are randomized to one of five programs of chemotherapy. Each program has been piloted with a small number of patients and appears promising.

**PROGRESS:** No. of Subjects Enrolled - To Date: 10          Reporting Period: 7

There are ten TAMC patients on this study. The study was closed November 1, 1984. Analysis of the response and survival data reveal no differences between the five treatment arms.
OBJECTIVE: To determine the response rate of a new chemotherapy program in small cell lung cancer.

TECHNICAL APPROACH: All patients agreeing to this study will receive 12 weeks of chemotherapy with cisplatinum, VP-16, and vincristine with concurrent chest radiation. After this, the patient will finish treatment with 12 more weeks of chemotherapy (VMV-VAC).

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

There are no TAMC patients on this study. Closure is anticipated within the next six months given current accrual. Toxicity has been tolerable with no unusual problems to date.
Detail Summary Sheet

Prot No: SWOG 8291/8391(84) Status: Ongoing

TITLE: The Intergroup Adult Adjuvant Soft Tissue Sarcoma, Protocol #122

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: sarcoma, soft tissue

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Jul 85

Gifts: None Decision: Continue

OBJECTIVE: To determine if Adriamycin given after either surgery or surgery plus irradiation will prolong survival and prevent relapses in patients with soft-tissue sarcomas with poor prognosis.

TECHNICAL APPROACH: Patients with poor prognosis soft-tissue sarcomas that have been completely resected (SWOG 8291) or that are either inoperable or incompletely resected (SWOG 8391) are randomized (after radiation therapy if indicated) to receive Adriamycin every 3 weeks for five doses or to receive no treatment.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No Tripler patients have been entered on this study as yet. Accrual has been poor, such that these two protocols may be combined at a future group meeting if current trends continue. No response or survival data was presented at the most recent group meeting.
Detail Summary Sheet

Prot No: SWOG 8293(85)   Status: Closed

TITLE: Management of Locally or Regionally Recurrent but Surgically Resectable Breast Cancer, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; LTC Marylin P. Ordonez, MC; CPT Dominic Solimando, MS; COL Peter Barcia, MC; LTC Y.T. Margaret Lee, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: breast cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: 
Gifts: None Decision: Closed

OBJECTIVE: To determine which of three possible treatments will be most beneficial (in terms of survival and side effects) to patients with recurrent breast cancer.

TECHNICAL APPROACH: All patients (after surgical resection of the tumor) agreeing to this study will be randomized to one of three treatment arms:
(1) Nine cycles of CAF chemotherapy, then local radiation; (2) Nine cycles of CAF chemotherapy with radiation reserved for another relapse; or (3) radiation to local area alone.

PROGRESS: No. of Subjects Enrolled - To Date: 0   Reporting Period: 0

There are no TAMC patients on this study. This study was closed because of poor accrual.
**Detail Summary Sheet**

**Prot No:** SWOG 8300(84)  
**Status:** Ongoing

**TITLE:** Treatment of Limited Non-small Cell Lung Cancer: Radiation Versus Radiation Plus Chemotherapy (FOMi/CAP), Phase III

**Principal Investigator:** COL Jeffrey Berenberg, MC  
**Associate Investigators:** MAJ William Uphouse, MC; MAJ Daniel Tell, MC; LTC Joseph Woods, MC; CPT Dominic Solimando, MS

**Department/Section:** Medicine/Hematology-Oncology

**Key Words:** lung cancer, non-small cell

**Funding:** FY 84: $300. FY 85: $300.  
**Periodic Review Date:**  
**Gifts:** None  
**Decision:** To be reviewed in Mar 86

**OBJECTIVE:** To determine whether chemotherapy added on to standard radiation therapy in patients with limited, non-small cell lung cancer will improve response rates and survival.

**TECHNICAL APPROACH:** Patients agreeing to participate in this study will be randomized to receive (1) definitive radiation therapy alone, or (2) 8 weeks of FOMi/CAP followed by definitive radiation and then two further cycles of FOMi/CAP. All patients are also randomized to receive or not receive prophylactic cranial irradiation.

**PROGRESS:**  
**No. of Subjects Enrolled - To Date:** 1  
**Reporting Period:** 0

One Tripler patient was registered on this protocol in 1984. No new TAMC patients were registered on this study this year. Accrual has been good and no unusual or unanticipated toxicity has occurred.
Prot No:  SWOG 8305(84)  Status:  Closed

TITLE:  Chemotherapy of Metastatic Colorectal Carcinoma With 5-FU and Folinic Acid, Phase II

Principal Investigator:  COL Jeffrey Berenberg, MC
Associate Investigators:  MAJ William Uphouse, MC; CPT Dominic Solimando, MS
Department/Section:  Medicine/Hematology-Oncology

Key Words:  colorectal carcinoma

Funding:  FY 84: $300.  FY 85: $300.
Gifts:  Folinic acid

Periodic Review Date:  Decision:  Closed

OBJECTIVE:  To determine the activity of a new chemotherapy program for metastatic colon or rectal cancer.

TECHNICAL APPROACH:  All patients who are eligible are randomized to either a 4 or 5 day schedule of 5-FU plus folinic acid.

PROGRESS:  No. of Subjects Enrolled - To Date:  1  Reporting Period:  1

This protocol was closed on March 16, 1984. An analysis of the data was not presented at the last SWOG Meeting. There are two TAMC patients on this study.
Detail Summary Sheet

Prot No: SWOG 8308(94) Status: Ongoing

TITLE: Combination Cis-platinum and Dichloromethotrexate in Patients with Advanced Bladder Cancer, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS
Department/Section: Medicine/Hematology-Oncology

Key Words: Bladder cancer

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: None Decision: Continued

OBJECTIVE: To determine the response rate of metastatic bladder cancer to a new combination of two chemotherapy drugs, cis-platinum and dichloromethotrexate in patients with good renal function. This study will also look at the response rate of dichloromethotrexate alone in patients with impaired renal function.

TECHNICAL APPROACH: Patients with good renal function will receive two doses of cis-platinum IV one month apart, then one dose every six weeks. They will also receive dichloromethotrexate IV weekly times 8, then every two weeks. Patients with impaired renal function will receive only the dichloromethotrexate.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

There are no TAMC patients on this study. No interim results are available. Accural is satisfactory and the study will remain open.
OBJECTIVE: To determine if combined hormone therapies are superior to single hormone therapy in sequence for metastatic breast cancer.

TECHNICAL APPROACH: All patients agreeing to this study will be randomized to one of three treatments: (1) megestrol acetate, (2) aminoglutethimide plus hydrocortisone, or (3) megestrol acetate plus aminoglutethimide plus hydrocortisone.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

There are no TMC patients on this study. Study remains open with no unanticipated toxicity. Accrual is adequate.
OBJECTIVE: To determine the response rate of advanced renal cell carcinoma to a new chemotherapy drug, fludarabine.

TECHNICAL APPROACH: Fludarabine will be given to consenting patients as an IV bolus each day for 5 days every 4 weeks.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No TAMC patients have been entered on this study. The study was closed on November 1, 1984. Thirty-six patients have been entered nationally. Median survival is 7.4 months. Of 31 patients evaluated for response, there were no partial or complete responses. Ten patients had stable disease.
Detail Summary Sheet

Prot No: SWOG 8318(84) Status: Closed

TITLE: Evaluation of Fludarabine Phosphate in Hepatoma, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: hepatoma

Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Gifts: None Decision: Closed

OBJECTIVE: To determine the response rate and response duration of hepatomas treated with a new drug, fludarabine.

TECHNICAL APPROACH: All patients agreeing to participate in this study will receive fludarabine IV bolus day 1 through day 5 every 28 days until their tumor progresses.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

No Tripler patients have been entered on this study. Seventeen patients have been entered nationally and because of unanticipated neurologic toxicity, this study has been closed temporarily. Response and survival data have not been reported.
**Detail Summary Sheet**

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**TITLE:** Evaluation of Combination Chemotherapy Using High Dose Ara-C in Adult Acute Leukemia and Chronic Granulocytic Leukemia in Blast Crisis, Phase III

**Principal Investigator:** COL Jeffrey Berenberg, MC  
**Associate Investigators:** MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS; MAJ Lawrence Sakas, MC

**Department/Section:** Medicine/Hematology-Oncology

**Key Words:** leukemia, adult acute; leukemia, chronic granulocytic

**Funding:** FY 84: NA  
FY 85: $300.  
**Periodic Review Date:**  
**Gifts:** None  
**Decision:** To be reviewed in Jul 86

**OBJECTIVE:** To determine the response and response duration of a high dose program of Ara-C in patients with relapsed acute leukemia.

**TECHNICAL APPROACH:** Patients agreeing to the study will be randomized to receive (1) six days of high dose Ara-C, (2) the same Ara-C plus three days of m-AMSA, or (3) the same Ara-C plus three days of Mitoxantrone.

**PROGRESS:** No. of Subjects Enrolled - To Date: 0  
Reporting Period: 0  
There are no TAMC patients on this study. Ten patients have been entered nationally, and it is too early to evaluate the progress of this study.
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS - 1963-A
Prot No: SWOG 8369(85)  Status: Ongoing

TITLE: Combination Chemotherapy with Mitoxantrone, Cis-Platinum, and MGBG for Refractory Lymphomas, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS; MAJ Lawrence Sakas, MC

Department/Section: Medicine/Hematology-Oncology

Key Words: lymphoma

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date:  Decision: To be reviewed in Jul 86

OBJECTIVE: To determine the response role of refractory (previously treated) non-Hodgkin's lymphoma to a new combination of chemotherapy drugs.

TECHNICAL APPROACH: All patients agreeing to the study will receive the three drugs IV on day 1 and then every 3 weeks until disease progression occurs.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

There are no TAMC patients on this study. Nationally, there are seven patients on the study with one complete response. The study will remain open another six months to assess accrual.
Detail Summary Sheet

Prot No: SWOG 8390(84)  Status: Ongoing
TITLE: Chemotherapy of Gastric Cancer with 5-FU and Folinic Acid, Phase II
Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS
Department/Section: Medicine/Hematology-Oncology
Key Words: gastric cancer
Funding: FY 84: $300. FY 85: $300. Periodic Review Date: Aug 85
Gifts: Folinic acid  Decision: Continue

OBJECTIVE: To determine the response rate of metastatic gastric carcinoma to a new combination of drugs (5-FU and folic acid).

TECHNICAL APPROACH: Patients who agree to participate will be randomized to receive 5-FU either by constant IV infusion on day 1 through day 4, or by IV bolus on day 1 through day 5. Folinic acid will be given in both arms by IV bolus on each day of 5-FU. Courses will be repeated monthly.

PROGRESS: No. of Subjects Enrolled - To Date: 4  Reporting Period: 4

There are four TAMC patients on this study. Toxicity has been acceptable and this study will remain open. No response or survival data has been reported.
Detail Summary Sheet

Prot No: SWOG 8393(84)  Status: Ongoing
TITLE: National Intergroup Protocol for Intermediate Thickness Melanoma
Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; CPT Dominic Solimando, MS; COL Peter J. Barcia, MC
Department/Section: Medicine/Hematology-Oncology
Key Words: melanoma
Funding: FY 84: $300. FY 85: $300.  Periodic Review Date: Aug 85
Gifts: None  Decision: Continued

OBJECTIVE: (1) To determine the optimal surgical margins (2 versus 4 cm) around the intermediate thickness melanomas (1-4 mm) that are being resected for cure. (2) To evaluate the value of elective regional lymph node dissection in these same melanomas.

TECHNICAL APPROACH: Patients with primary melanomas of the head or neck or distal extremities will be randomized to receive or not receive elective node dissection, but all patients in this group will have 2 cm surgical margins. Patients with melanomas of the trunk or proximal extremities will undergo two randomizations, (1) to receive or not to receive elective node dissection, and (2) to have either a 2 or 4 cm surgical margin.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

No Tripler patients have been registered on this protocol. Seventeen patients have been entered nationally from SWOG. It is too early to assess efficacy of this protocol approach.
**Detail Summary Sheet**

**Prot No:** SWOG 8403(84)  **Status:** Closed

**TITLE:** Evaluation of Fludarabine in Squamous Cell Carcinoma of the Head and Neck Region, Phase II

**Principal Investigator:** COL Jeffrey Berenberg, MC  
**Associate Investigators:** MAJ William Uphouse, MC; MAJ Daniel Tell, MC; LTC Joseph Woods, MC; CPT Dominic Solimando, MS

**Department/Section:** Medicine/Hematology-Oncology

**Key Words:** squamous cell carcinoma

**Funding:** FY 84: $300. FY 85: $300. **Periodic Review Date:**  
**Gifts:** Fludarabine  **Decision:** Closed

**OBJECTIVE:** To determine the response rate and response duration of advanced head and neck cancer to a new drug.

**TECHNICAL APPROACH:** All patients agreeing to participate will receive fludarabine as an IV infusion over 30 minutes on day 1 to 5 every 28 days until their disease progresses.

**PROGRESS:** No. of Subjects Enrolled - To Date: 2  **Reporting Period:** 2

Two TAMC patients were entered on this study. There are no complete responses reported with this agent. The study is temporarily closed because of unanticipated neurologic toxicity.
OBJECTIVE: To determine the response rate and duration of response to a new chemotherapy regimen for aggressive lymphomas.

TECHNICAL APPROACH: All patients who agree to participate will receive weekly chemotherapy with the six drugs being given intermittently for a total of 30 weeks.

PROGRESS: No. of Subjects Enrolled - To Date: 2  Reporting Period: 1

There are two TAMC patients on this study, one was entered this past year. The study was closed March 22, 1985. This treatment will be one arm of the new phase III lymphoma study as toxicity and response rates were acceptable.
OBJECTIVE: To compare two consolidation chemotherapy programs in terms of remission, duration, and survival.

TECHNICAL APPROACH: All patients agreeing to participate will be randomized to receive either the L-10M consolidation or the new (shorter) consolidation program.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was approved in September 1985.
Detail Summary Sheet

Prot No: SWOG 8421(85) Status: Closed

TITLE: Cyclophosphamide, Methotrexate, and 5-Fluorouracil in the Treatment of Stage D2 Adenocarcinoma of the Prostate, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: prostate cancer

Funding: FY 84: NA FY 85: $300. Periodic Review Date:
Gifts: None Decision: Closed

OBJECTIVE: To determine the response rate of advanced prostate cancer to a combination of three chemotherapy drugs, cyclophosphamide, methotrexate, and 5-fluorouracil.

TECHNICAL APPROACH: All patients agreeing to participate in this study will receive daily cyclophosphamide p.o. and weekly methotrexate and 5-fluorouracil (IV). An adequate trial is 8 weeks.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

This protocol was closed on September 27, 1985. There are no TAMC patients on this study. Fifty-seven patients were entered through SWOG in six months. It is too early to assess impact of this treatment on survival.
OBJECTIVE: To determine the response rate of advanced colorectal cancer to a new chemotherapy drug, VM-26.

TECHNICAL APPROACH: All patients agreeing to participate in this study will receive VM-26 I.V. over 45 minutes for 5 days in a row. This cycle repeats every 3 weeks.

PROGRESS: No. of Subjects Enrolled - To Date: 5 Reporting Period: 5

Five TAMC patients were entered on this study in the past year. The study has been closed and is undergoing analysis.
Detail Summary Sheet

Prot No: SWOG 8493(85) Status: Ongoing

TITLE: Simultaneous Cisplatinum Plus Radiation Therapy Compared with Standard Radiation Therapy in the Treatment of Unresectable Squamous or Undifferentiated Carcinoma of the Head and Neck

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; LTC Marylin Ordonez, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: carcinoma, head and neck

Funding: FY 84: NA FY 85: $300. Periodic Review Date: Decision: To be reviewed in Jan 86

OBJECTIVE: To determine if cisplatinum given simultaneously with radiation will improve the results of radiation alone in patients with unresectable head and neck cancer.

TECHNICAL APPROACH: All patients agreeing to this study will be randomized to receive either (1) radiation therapy alone or (2) radiation plus simultaneous weekly cisplatinum during the radiation only.

PROGRESS: No. of Subjects Enrolled - To Date: 0 Reporting Period: 0

There are no TAMC patients on this study. Accrual is good and no response data was reported. The study will probably be revised to stratify patients based on whether they are newly diagnosed or recurrent.
Detail Summary Sheet

Prot No: SWOG 8494(85) Status: Ongoing

TITLE: A Comparison of Leuprolide with Flutamide and Leuprolide in Patients with Stage D2 Cancer of the Prostate, Phase III

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: prostate cancer

Funding: FY 84: NA FY 85: $300. Periodic Review Date: Decision: To be reviewed i.. Apr 86

OBJECTIVE: To determine if the combination of leuprolide (a LHRH agonist) and flutamide (an anti-androgen) produces superior responses in advanced prostate cancer over leuprolide alone.

TECHNICAL APPROACH: All patients agreeing to participate in this study will be randomized to receive either (1) leuprolide, 1 mg 5 times daily, plus flutamide, 250 mg p.o. t.i.d., or (2) leuprolide, 1 mg 5 times daily, plus placebo capsules (that look like flutamide).

PROGRESS: No. of Subjects Enrolled - To Date: 2 Reporting Period: 2

Two TAMC patients have been entered on this study. Accrual remains good and this study will remain open.
TITLE: Combination Chemotherapy of Intermediate and High-Grade Non-Hodgkin's Lymphoma with ProMACE-CytaBOM, Phase II

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel T. Tell, MC; CPT Dominic Solimando, MS; MAJ Lawrence Sakas, MC

Department/Section: Medicine/Adult Hematology-Oncology

Key Words: lymphoma, non-Hodgkin's

Funding: FY 84: NA FY 85: $300. Periodic Review Date: Decision: Closed

OBJECTIVE: To determine the response rate and duration of response to a new chemotherapy program.

TECHNICAL APPROACH: Patients agreeing to participate in this study will all receive this 9-drug regimen for a total of six 3-week courses.

PROGRESS: No. of Subjects Enrolled - To Date: 3 Reporting Period: 3

Three patients have been enrolled from TAMC. The study has been closed to patient entry.
Detail Summary Sheet

Prot No: SWOG 8591(85)  Status: Ongoing

TITLE: Phase III Study to Determine the Effect of Combining Chemotherapy with Surgery and Radiotherapy for Resectable Squamous Cell Carcinoma of the Head and Neck

Principal Investigator: COL Jeffrey Berenberg, MC
Associate Investigators: MAJ William Uphouse, MC; MAJ Daniel Tell, MC; CPT Dominic Solimando, MS

Department/Section: Medicine/Hematology-Oncology

Key Words: squamous cell carcinoma

Funding: FY 84: NA  FY 85: $300.  Periodic Review Date:
Gifts: None  Decision: To be reviewed in Apr 86

OBJECTIVE: To determine if adding chemotherapy will improve results of surgery and radiation for advanced (Stage III and IV) but resectable head and neck cancer.

TECHNICAL APPROACH: All patients agreeing to participate in the study will be randomized to receive (1) surgery, then radiation therapy, or (2) surgery, then 3 cycles of chemotherapy ('cisplatinum plus 5-FU), then radiation.

PROGRESS: No. of Subjects Enrolled - To Date: 0  Reporting Period: 0

There are no TAMC patients on this study. Response data has not been released. The number of this protocol has been changed from 8591 to 8590. There are only four patients on this study nationwide.
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