Military Importance: What Does It Mean and Can It Be Assessed Objectively?

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Importance describes a thing, action, circumstance, or idea that has a strong effect on the course of events or the nature of things. As such, things that are "militarily important" should have strong – and possibly measurable – effects on the courses of military events (e.g., training activities, combat operations) or the natures of military things (e.g., health and operational capabilities of military members; quality of medical care). In principle, assessments of "military importance" should guide, at least in part, the prioritization of military medical health care practices, policies, training, and research initiatives – and allocations of resources to support them.

In recent years, the Department of Defense – often, at the direction of the U.S. Congress or in collaboration with other federal agencies – has established or continued to support clinical and research centers, institutes, agencies, task forces, and programs focused on medical conditions, syndromes, and health threats considered "militarily important." Such conditions have included deployment-related psychological disorders, including post-traumatic stress disorder (PTSD); suicide; traumatic brain injury; traumatic extremity injuries and amputations; vision, hearing and balance disorders; diseases that are preventable by vaccinations; adverse events of vaccines; effects of chemical and biological weapons; and various naturally occurring infectious diseases, including malaria, dengue, shigellosis, HIV-1 infection, meningococcal disease, and "emerging" infectious diseases. While all of these conditions affect or threaten current or future military members, it is not clear if, why, or how they were considered more militarily important than others.

Inevitably, "military importance" is a subjective assessment because the perceived importance of a condition or threat depends on the perspective, knowledge, experience, and values of the observer and on the context in which importance is judged. Consider, for example, that the "most important" condition to an injured or seriously ill service member, his family, and his close friends is the condition that currently threatens his health, his future, and his overall sense of well-being; to a commander in combat, it is the condition or threat that most affects his unit’s operational effectiveness; to a hospital administrator, it is the condition that demands the most resources for evaluation, treatment, and rehabilitation; to the medical researcher, special interest advocate, politician, investigative journalist, or military public affairs officer, it is the condition or threat (actual or hypothesized) that corresponds to his area of expertise, his constituents’ current interest, popular attention, and so on.

Because of rapid advances in knowledge and technologies related to conditions and threats of military interest, military leaders often seek the advice of "subject matter experts." In general, subject matter experts earn their specialized knowledge and professional reputations through years of focused study, research, teaching, and practice in their fields of expertise. However, because of their rigorous focus on their specialty areas, they may have relatively little knowledge, interest, or experience in other areas (including military operations). In deference to their expert knowledge and professional status, recommendations of subject matter experts regarding military policy, practice, research, and resource priorities may be accepted without objective and systematic consideration of the "military importance" of the conditions or threats of interest relative to all others.

Given the challenges of setting military medical priorities during periods of declining resources, increasing demand for services, and worldwide political and military instability, it is reasonable to wonder how or if "military importance" might be better integrated into decision making.

Determinants of "military importance"

Based on recent experience and published reports, we have identified four general determinants of the "military importance" of medical conditions, military activities, or exposures that degrade or threaten the health, safety, and senses of well-being of U.S. military members and the capabilities of the Military Health System to care for them (Figure 1). If objective measures of the determinants of military importance were available, the relative importance of various conditions could be assessed systematically. Such assessments might enhance the "situational awareness" of military medical leaders and help guide their planning, policy making, and resource allocation decision making.

Costs to the military health system: Each episode of an illness or injury of a military member is associated with health care costs, e.g., due to medical evacuation or other medically-indicated travel; clinical evaluation, treatment, and rehabilitation; disability determination and compensation; and so on. In general, illnesses and injuries that are very common among military members are more costly than those that are rare; those that require hospitalizations are more costly than those treated in ambulatory settings; those with long clinical courses are more costly than those with shorter courses; those that require more invasive or multiple procedures for diagnosis, treatment, and rehabilitation are more costly than those with pathognomonic clinical presentations and short, self-limited clinical courses; and so on.

Effects on military operations and training: Illnesses and injuries can degrade the operational capabilities of affected service members and their units; the effects depend, for example, on the status (e.g., grade, occupational specialty, leadership role) of the affected service member; the type and status of the service member’s unit and operational setting (e.g., combat versus peacetime); and the nature, severity, and duration of acute effects, related disabilities, and rehabilitation. For example, medical conditions that require hospitalizations, convalescence "in quarters," or medical evacuations from operational
or training missions completely remove affected individuals from their units and operational duties; if such conditions occur in large numbers, they cause large amounts of lost duty time. Of particular note, illnesses and injuries that affect many members of mission critical units (e.g., deployed air crews, recruit training centers) in short periods of time can disrupt operational and training missions more than similar numbers of cases more widely distributed across military units, locations, and time periods.

Compassion, empathy, humanitarian concerns: Medical professionals are generally motivated and specifically trained to relieve suffering, minimize disabilities, and preserve the lives of those for whom they care – to the extent of their knowledge and abilities and regardless of the costs. Also, military commanders and other leaders are responsible for and trained to protect the well-being of those whom they lead. Thus, from the standpoints of “frontline” military health care providers and unit leaders, any medical condition that causes pain, disability, or threatens the life of a service member under their care or supervision is inherently very “militarily important.”

In addition, many individuals not in active military service (e.g., family members, military veterans, anti-war advocates) have enormous compassion for and concern regarding the current and future welfare of those affected by military-related illnesses and injuries – particularly those that are clinically severe and permanently disabling (e.g., spinal cord injury, amputation, blindness). When such conditions are directly (e.g., bullet/shrapnel wounds) or hypothetically (e.g., Gulf War illnesses) related to military equipment, substances, activities, or experiences, they are considered inherently militarily important.

Concerns of the popular press, politicians, senior military leaders, celebrities: In the past, and to an increasing degree more recently (e.g., due to wider uses of internet and “social media” networks for information propagation), cases, clusters, or groups of medical conditions among current military members or veterans have been reported as, or alleged to be, unexplained, alarming, military service-related, or otherwise deserving of immediate high-level attention. When such reports or allegations are reported in the popular press (especially at the national level), they often gain the public advocacy support of politicians, celebrities, and individuals or groups of outspoken physicians or scientists. Senior military leaders must be concerned when there is widespread or high level political interest in a military medical issue; as such, such issues are inherently “militarily important.”

Given these determinants of military importance, most, if not all, medical conditions, activities, or exposures would be considered “militarily important” by at least some observers, based on past, current, or hypothesized future circumstances. However, if all conditions and threats could plausibly be considered militarily important, then such importance would not be a useful criterion for establishing priorities for military medical programs – unless the relative importance of various conditions and health threats could objectively be assessed.

Over the past 17 years, the MSMR has periodically described in a quantitative manner the annual impact of various illnesses and injuries on the active component of the U.S. Armed Forces. The impact has been depicted in terms of numbers of individuals affected, hospitalizations, outpatient encounters, health care burdens, lost duty time, and deaths. These reports provide comprehensive and objective overviews of the relative influence of various conditions on the physical and psychological health of military members and on their availability for service with their units – and the relative burdens of various conditions on the military health system.

In the future, military medical leaders and other decision makers will be constantly challenged to balance diminishing resources with: increasing demands for medical services by diverse beneficiary populations; increasingly expensive preventive, diagnostic, therapeutic, and rehabilitative interventions; increasing and more diverse concerns of “special interest” advocates, politicians, and the popular media; and increasing social, political, and military instability throughout the world. Given these constraints, it will be difficult to maintain situational awareness regarding the relative military importance of various conditions and health threats. Objective correlates of determinants of military importance – such as those provided by the MSMR annual reports referred to above – may be useful to help prioritize and guide force health protection policy decisions, clinical practice initiatives, military medical research agendas, and the distribution of military medical resources.

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**Figure 1.** Determinants of military importance and potentially measurable correlates (selected)