

# Defense Health Care: Information on Sepsis Incidence and Management

GAO-25-107357 (Accessible Version)

Q&amp;A

Report to Congressional Committees

April 23, 2025

## Why This Matters

Sepsis—a health condition caused by an extreme response to infection in the body—can be life-threatening and requires prompt medical care. Sepsis is a leading cause of hospital admissions and deaths, and its significance has been compared to heart attacks or strokes.

The Department of Defense (DOD) is responsible for providing health care to millions of beneficiaries, including care that could involve the diagnosis and treatment of sepsis. Approximately 9.4 million beneficiaries, including service members, retirees, and their dependents, are eligible to receive health services through DOD. DOD's Defense Health Agency (DHA) provides these health services through DHA-operated military medical treatment facilities (referred to as the direct care system). DHA also pays for health services provided to beneficiaries through networks of civilian providers that are administered under contract (referred to as the private sector care system).

The House Report accompanying the National Defense Authorization Act for Fiscal Year 2024 includes a provision for GAO to report on various issues related to sepsis within DOD. (H. Rpt. No. 118-125 at 212 (June 30, 2023) accompanying Pub. L. No. 118-31, 137 Stat. 136 (2023).) This report describes admissions involving sepsis at military medical treatment facilities and sepsis management efforts within DHA, including what entities focus on sepsis, what information is tracked, and selected military medical treatment facility experiences with sepsis diagnosis and treatment.

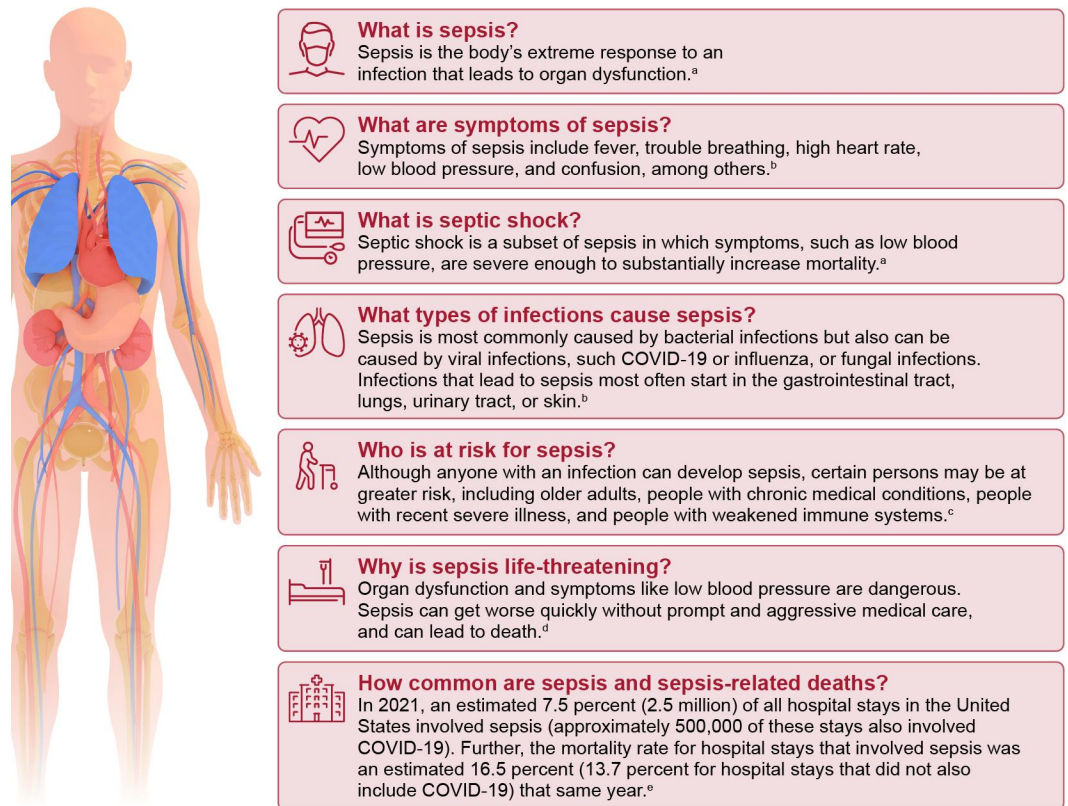
## Key Takeaways

- DHA data show that the number of inpatient admissions at military medical treatment facilities that involved sepsis was relatively consistent from fiscal year 2017 through fiscal year 2023 and accounted for approximately 1 percent of total inpatient admissions.
- DHA formed a Sepsis Working Group in 2021 to standardize efforts related to sepsis detection, diagnosis, and treatment. In February 2025, DHA released a policy memorandum on this condition developed by the Sepsis Working Group.
- DHA tracks information on four sepsis-related quality measures. Military medical treatment facilities generally performed comparable to, or better than, the benchmark rates for all hospitals applicable to calendar year 2023.
- Staff we interviewed at military medical treatment facilities did not report experiencing any major challenges specific to sepsis diagnosis and treatment.

## What is sepsis?

Sepsis is a life-threatening condition caused by the body's extreme response to an infection that leads to organ dysfunction.<sup>1</sup> Sepsis can be identified through the presence of certain clinical signs and symptoms alongside a known or suspected infection. See figure 1 for more information about sepsis.

**Figure 1: Information About Sepsis**



Source: GAO review of Department of Health and Human Services and national organization information (text); PepeGallardo/stock.adobe.com (body illustration); iierlok\_xolms/stock.adobe.com (icons). | GAO-25-107357

<sup>a</sup>Our definition is based on the clinical definition of sepsis published in 2016 by a task force of experts convened by the Society of Critical Care Medicine and the European Society of Intensive Care Medicine. See Mervyn Singer et al., "The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)," *JAMA*, vol. 315, no. 8 (2016).

<sup>b</sup>See Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, *About Sepsis*, accessed February 6, 2025 from <https://www.cdc.gov/sepsis/about/index.html>

<sup>c</sup>See Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, *Risk Factors for Sepsis*, accessed February 6, 2025 from <https://www.cdc.gov/sepsis/risk-factors/index.html>

<sup>d</sup>See American Thoracic Society, ATS Patient Education Series, "What is Sepsis?" *Am J Resp Crit Care Med*, vol. 196, no. 11 (2017).

<sup>e</sup>See Pamela L. Owens et al., *Overview of Outcomes for Inpatient Stays Involving Sepsis, 2016-2021*, Healthcare Cost and Utilization Project Statistical Brief #306 (Rockville, Md.: Agency for Healthcare Research and Quality, April 2024).

## Where is sepsis typically diagnosed or treated within hospitals?

Sepsis may be diagnosed or treated in various locations within a hospital, including the emergency department, intensive care unit, and other inpatient settings. Typically, patients hospitalized with sepsis receive an initial diagnosis and care in the emergency department. Research has found that over 70 percent of patients hospitalized with sepsis have it present upon admission, suggesting that they developed sepsis before (community-onset) rather than after (hospital-onset) hospital admission.<sup>2</sup>

While care for patients with sepsis may begin in the emergency department, subsequent hospitalization is usually necessary to provide appropriate treatment for sepsis given the severity of this condition. According to the Centers for Disease Control and Prevention, this treatment must be coordinated across

multiple care locations and among providers in multiple specialties. It also needs to be tailored to the patient's condition and the specific infection that caused the sepsis.<sup>3</sup> In cases of septic shock, intensive care units can provide advanced care and interventions to optimize patient outcomes, according to the Agency for Healthcare Research and Quality.<sup>4</sup> In addition, specialists like infectious disease providers may be consulted on topics like antibiotic selection and administration.<sup>5</sup>

### **What national guidelines and standards exist related to sepsis?**

National guidelines and standards to help inform clinical care for sepsis and sepsis management programs within hospitals are available from the Centers for Disease Control and Prevention and organizations including the Surviving Sepsis Campaign and The Joint Commission.

**Hospital Sepsis Program Core Elements.** The Centers for Disease Control and Prevention published this resource in 2023, building on existing efforts to track infectious diseases that may lead to sepsis and raise awareness about this condition.<sup>6</sup> The resource identifies seven key features—or core elements—of effective hospital sepsis management programs, such as hospital leadership commitment and support for sepsis education. These core elements allow for variability across hospitals and are intended to complement existing clinical guidelines for sepsis care, such as those from the Surviving Sepsis Campaign, as described by the Centers for Disease Control and Prevention in this resource.

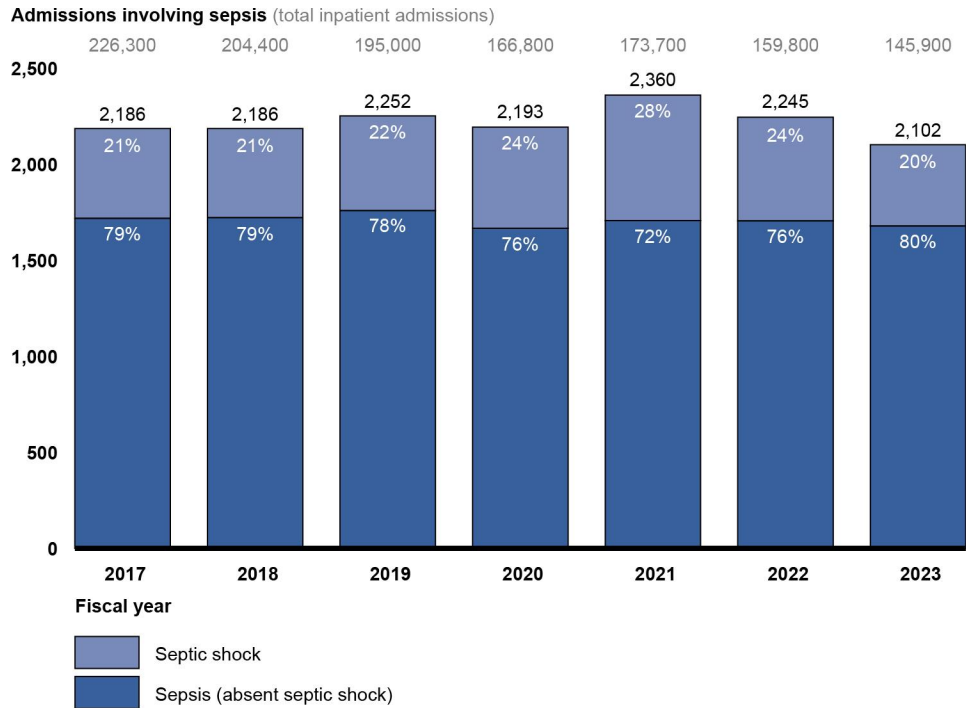
**Surviving Sepsis Campaign guidelines.** The Surviving Sepsis Campaign is a joint initiative of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine that has issued guidelines to inform diagnosis and treatment of sepsis in hospital settings since 2004.<sup>7</sup> The most recent Surviving Sepsis Campaign guidelines for adults were released in 2021 and include, among other things, recommendations for administration of antimicrobial drugs to patients suspected of having sepsis.

**The Joint Commission sepsis certification.** The Joint Commission has offered certification of a health care system's sepsis management practices since 2012, according to The Joint Commission staff.<sup>8</sup> Certification provides external validation of a health care system's practices based on core requirements such as measuring performance and communication among the care planning team. According to The Joint Commission staff, the Surviving Sepsis Campaign guidelines informed the organization's sepsis certification. The Joint Commission also has accreditation standards related to such topics as infection prevention and antibiotic stewardship (the effort to measure and improve how antibiotics are prescribed and used), which are applicable to sepsis management.

### **What do data indicate about the incidence of sepsis within the Department of Defense health systems?**

Our analysis of DHA data indicates that among DOD beneficiaries, the number of inpatient admissions that involved sepsis of any severity at military medical treatment facilities (the direct care system) ranged from approximately 2,100 to 2,300 annually from fiscal year 2017 through fiscal year 2023, totaling 15,524 admissions for this 7-year period.<sup>9</sup> These admissions represented approximately 1 percent of the almost 1.3 million total inpatient admissions at military medical treatment facilities for the period (see fig. 2).

**Figure 2: Number of Inpatient Admissions Involving Sepsis of any Severity at Military Medical Treatment Facilities, Fiscal Years 2017–2023**



Source: GAO analysis of Defense Health Agency data. | GAO-25-107357

**Accessible Data for Figure 2: Number of Inpatient Admissions Involving Sepsis of any Severity at Military Medical Treatment Facilities, Fiscal Years 2017–2023**

Fiscal year	Sepsis (%)	Septic shock (%)	Total admissions involving sepsis	Total number of inpatient admissions
2017	1718 (79%)	468 (21%)	2186	226,300
2018	1722 (79%)	464 (21%)	2186	204,400
2019	1758 (78%)	494 (22%)	2252	195,000
2020	1667 (76%)	526 (24%)	2193	166,800
2021	1707 (72%)	653 (28%)	2360	173,700
2022	1705 (76%)	540 (24%)	2245	159,800
2023	1678 (80%)	424 (20%)	2102	145,900

Source: GAO analysis of Defense Health Agency data. | GAO-25-107357

Note: Total admissions involving sepsis of any severity includes admissions with any diagnostic code that refers to the presence of sepsis. This includes admissions among beneficiaries with sepsis present upon admission as well as admissions among beneficiaries who developed sepsis after admission. For the purposes of this figure, we highlight admissions that include diagnostic codes that refer to septic shock separately from all other admissions involving sepsis-related diagnostic codes. Septic shock is a subset of sepsis in which symptoms, such as low blood pressure, are severe enough to substantially increase mortality.

A diagnosis of sepsis of any severity was present upon admission among 86 percent of the 15,524 admissions.<sup>10</sup> This is consistent with what research has found among the general population—that sepsis typically begins before a patient arrives at a hospital.

In terms of beneficiary outcomes, our analysis of DHA data indicates that approximately 5 percent of the inpatient admissions that involved sepsis (absent septic shock, which is a more severe subset of sepsis) resulted in a mortality-related outcome: a beneficiary's death or discharge to hospice. For admissions that involved a diagnosis of septic shock, approximately 27 percent resulted in a mortality-related outcome. Of note, these mortality-related outcomes cannot be attributed to the diagnoses of sepsis or septic shock. Rather, these beneficiaries may have experienced mortality-related outcomes attributable to other causes, for example, a co-occurring diagnosis of acute kidney failure.<sup>11</sup>

We also analyzed the DHA data by selected beneficiary characteristics. For example, we found that older beneficiaries accounted for most inpatient admissions that involved sepsis of any severity for the 7-year period, while the share of admissions involving males and females were similar to each other (see table 1).

**Table 1: Inpatient Admissions That Involved Sepsis of any Severity at Military Medical Treatment Facilities by Selected Beneficiary Characteristics, Fiscal Years 2017–2023**

Beneficiary characteristic	Beneficiary category	Share of inpatient admissions involving sepsis of any severity
Sex	Male	54%
Sex	Female	46%
Age	< 18 years	6%
Age	18 – 24	7%
Age	25 – 34	6%
Age	35 – 44	6%
Age	45 – 54	8%
Age	55 – 64	15%
Age	65+	51%
Beneficiary type	Active duty service members	9%
Beneficiary type	Dependents <sup>a</sup>	47%
Beneficiary type	Retirees	43%
Beneficiary type	National Guard and Reserve service members	<1%
Beneficiary type	Unknown	<1%

Source: GAO analysis of Defense Health Agency data. | GAO-25-107357

Note: The number of annual inpatient admissions that involved sepsis of any severity at military medical treatment facilities totaled 15,524 for fiscal year 2017 through fiscal year 2023. These admissions represented approximately 1 percent of the almost 1.3 million total inpatient admissions at military medical treatment facilities for this 7-year period.

<sup>a</sup>For the purposes of this analysis, we grouped dependents of active duty service members, retirees, and National Guard and Reserve members together in one beneficiary category.

We found that among current and former service members (8,204 of the 15,524 admissions), the share of inpatient admissions involving sepsis for each branch of the military was proportionate to the overall sizes of that branch. Among this group, the share for enlisted members and officers was similar to their overall numbers in the military (see table 2).

**Table 2: Inpatient Admissions for Current and Former Service Members That Involved Sepsis of any Severity at Military Medical Treatment Facilities, by Selected Characteristics, Fiscal Years 2017–2023**

Beneficiary characteristic	Beneficiary category	Share of inpatient admissions involving sepsis of any severity
Branch of service	Army	42%
Branch of service	Navy	25%
Branch of service	Air Force	24%
Branch of service	Marine Corps	8%
Branch of service	Coast Guard	<1%
Branch of service	Unknown	<1%
Rank	Enlisted members	79%
Rank	Officers	18%
Rank	Warrant officers	3%
Rank	Unknown	<1%

Source: GAO analysis of Defense Health Agency data. | GAO-25-107357

Note: The number of annual inpatient admissions that involved sepsis of any severity for active duty service members, National Guard and Reserve service members, and retirees at military medical treatment facilities totaled 8,204 for fiscal year 2017 through fiscal year 2023. These admissions represented approximately 53 percent of the 15,524 total inpatient admission involving sepsis of any severity for this 7-year period, and less than 1 percent of the almost 1.3 million total inpatient admissions at military medical treatment facilities for this same period.

We also examined beneficiary admissions in the private sector care system. Our analysis of the DHA data indicates that the number of inpatient admissions that



involved sepsis in this system ranged from approximately 44,000 to 49,000 annually for the same 7-year period, totaling 331,774 admissions.<sup>12</sup> Although DOD pays for health services provided through the private sector care system, it is not involved in how these services—including services for sepsis—are provided. Therefore, we did not further analyze these data.

### What entities within the Defense Health Agency focus on sepsis?

Sepsis is a key area of focus for DHA's Critical Care and Trauma Clinical Community, as well as a concern for entities across DHA, according to officials. The Critical Care and Trauma Clinical Community is a group comprised of multidisciplinary providers from across DOD. In 2021, this clinical community created DHA's Sepsis Working Group to integrate and standardize efforts related to sepsis detection, diagnosis, and treatment across the military medical treatment facilities, among other goals. According to DHA officials, the Sepsis Working Group has physician and nurse co-chairs, and membership is open to subject matter experts from across the military departments. The Sepsis Working Group's key activities at the time of our review were the following, according to DHA officials.

- **Issuance of a DHA policy memorandum on sepsis.** In February 2025, DHA released a policy memorandum developed by the Sepsis Working Group.<sup>13</sup> This memorandum establishes a sepsis strategy in the military medical treatment facilities, referencing national standards and guidelines, such as the Centers for Disease Control and Prevention's Hospital Sepsis Program Core Elements and the Surviving Sepsis Campaign guidelines.<sup>14</sup> The memorandum directs military medical treatment facilities to establish multi-disciplinary teams—including physicians, nurses, pharmacists, and other individuals—and outlines a process for these teams and relevant DHA working groups to monitor each facility's performance on the sepsis-related quality measure developed by the Centers for Medicare & Medicaid Services (described below).<sup>15</sup>
- **Completion of sepsis-related electronic health record system modifications to optimize sepsis detection.** The Sepsis Working Group collaborated on a broader effort to modify the federal electronic health record system, including the system used by DOD. As a result of the effort, modifications were made to the electronic health record system to implement an early warning score that alerts providers to possible clinical deterioration based on patients' vital signs, such as oxygen levels. This early warning score can be used to help detect sepsis, among other possible causes of clinical deterioration.
- **Review of available sepsis data to answer relevant clinical questions.** The Sepsis Working Group coordinates with DHA's Clinical Measurement program—a component of the agency's broader quality management framework—to identify and analyze available data relevant to answering sepsis-related clinical questions. For example, the Sepsis Working Group reviewed data to examine whether patients typically arrive at the hospital with sepsis (community-onset) or develop sepsis at the hospital (hospital-onset).

### What information does the Defense Health Agency track related to sepsis?

DHA tracks information on four sepsis-related quality measures. These measures are part of broader quality measurement programs administered by other government agencies and a non-governmental organization. The four measures examine topics such as post-surgical patient outcomes and timely and effective delivery of health care services related to sepsis (see table 3).

**Table 3: Description of Four Sepsis-Related Quality Measures Tracked by the Defense Health Agency**

Sepsis measure	Description	Quality measurement program
Sepsis care measure (commonly referred to as SEP-1)	Percentage of patients who received “appropriate care” for sepsis in the hospital setting (e.g., antibiotics, fluids) <sup>a</sup>	Centers for Medicare & Medicaid Services Hospital Care Compare
Patient Safety Indicator 04	Risk-adjusted death rate among surgical inpatients with sepsis as a serious treatable complication <sup>b</sup>	Agency for Healthcare Research and Quality Patient Safety Indicators
Patient Safety Indicator 13	Risk-adjusted rate of postoperative sepsis among hospitalizations for elective surgery	Agency for Healthcare Research and Quality Patient Safety Indicators
Postoperative sepsis	Risk-adjusted rate of patients diagnosed with sepsis within 30-days post-surgery	American College of Surgeons National Surgical Quality Improvement Program

Source: GAO review of information from the Defense Health Agency and publicly available Department of Health and Human Services and American College of Surgeons National Surgical Quality Improvement Program information. | GAO-25-107357

Note: These measures are part of broader quality measurement programs that examine topics such as post-surgical patient outcomes and timely and effective delivery of health services related, but not limited, to sepsis.

<sup>a</sup>This measure captures whether certain clinical protocols or treatments occur within required time frames for patients with identified severe sepsis or septic shock.

<sup>b</sup>This measure includes information on death rates among surgical inpatients with several types of serious treatable complications, including sepsis. While the overall measure is broader, information specific to sepsis as a serious treatable complication is available.

Notably, according to data DHA provided to us as well as publicly available data, in calendar year 2023 military medical treatment facilities performed comparable to, or better than, the applicable benchmark rates for all hospitals for three of the four quality measures.<sup>16</sup> Such measures included receiving appropriate care for sepsis in hospital settings (sepsis care measure), the death rate among surgical inpatients with sepsis as a serious treatable complication (Patient Safety Indicator 04), and the rate of postoperative sepsis. All but one military medical treatment facility performed comparable to, or better than, the benchmark rate for all hospitals on the fourth measure—postoperative sepsis following elective surgery (Patient Safety Indicator 13).<sup>17</sup>

### What experiences have selected military medical treatment facilities had related to diagnosing and treating sepsis?

Staff from the four selected military medical treatment facilities we included in our review generally expressed confidence in the sepsis care provided at their facilities. These staff did not report experiencing any major challenges specific to sepsis diagnosis and treatment, and most did not express a need for additional sepsis-related support or resources.<sup>18</sup>

Staff at the selected facilities reported leveraging certain existing hospital practices to aid sepsis diagnosis and treatment. For example, staff from three facilities described using rapid response nurses or teams to address sepsis (as well as other critical conditions). According to staff at one facility, the rapid response nurse conducts proactive monitoring to identify patients at risk of sepsis based on early warning scores generated in the electronic health record system. Staff indicated that using rapid response nurses and teams allows their facilities to assemble necessary providers to promptly assess patients and deliver timely care at the bedside. They noted that rapid response nurses and teams can also improve care coordination and facilitate communication across hospital providers and units, which is critical given the multidisciplinary nature of sepsis care.

Staff from the four facilities also described steps taken to inform sepsis diagnosis or treatment. For example, staff from two facilities described the development of facility-specific protocols related to sepsis identification and response. Staff from two facilities also noted the use of devices to reduce the risk of contamination in blood culture samples, enabling providers to more accurately identify infections causing sepsis and initiate appropriate and timely treatment.

## Agency Comments

We provided the Department of Defense with a draft of this report for review and comment. The Department of Defense did not have any comments on this report.

## How GAO Did This Study

To obtain information on sepsis, including how it is defined and where it is typically diagnosed and treated, we reviewed information from federal sources and national organizations. We also interviewed staff from three national organizations, the American College of Emergency Physicians, the Society of Critical Care Medicine, and the Society of Hospital Medicine.<sup>19</sup>

To determine what data indicate about inpatient admissions that involve sepsis at military medical treatment facilities, we analyzed data on inpatient admissions that involved sepsis or septic shock from DHA's Military Health System Data Repository for fiscal years 2017 through 2023. Fiscal year 2017 was the first year after significant changes to all medical coding, including but not limited to sepsis, occurred; fiscal year 2023 was the most recent, complete year for which data were available at the time of our review. We analyzed admissions by type of beneficiary, race, ethnicity, sex, age, military branch, military rank, whether the admissions included a diagnosis of sepsis that was present on admission, and whether the admission resulted in a mortality-related outcome. Further, through discussions with DHA officials, we determined that we could not make comparisons between inpatient admissions that involved sepsis at military medical treatment facilities to such admissions among the general population due to differences among these populations related to occupation, health, and age.

To assess the reliability of these data, we interviewed DHA officials, reviewed the data dictionary for the variables included in our analysis, and conducted data quality checks. Based on these assessments, we determined the variables on beneficiary race and ethnicity were not reliable for reporting purposes due to incompleteness of these data. We found the remaining data to be sufficiently reliable for our reporting purposes.

To understand sepsis management efforts within DHA, we interviewed DHA officials, including officials from the agency's Sepsis Working Group and Clinical Measurement Program, and reviewed related documentation. We also obtained and reviewed DHA and other publicly available information on military medical treatment facility performance on four sepsis-related quality measures. Further, we interviewed staff from four selected military medical treatment facilities and the associated Defense Health Networks regarding their experiences with sepsis management.<sup>20</sup> The facilities were selected for variation in the number of sepsis cases treated, inpatient bed capacity, affiliated service branch, and geography. Defense Health Networks provide administrative services, such as coordinating staff and other resources, for facilities in their region.

We conducted this performance audit from January 2024 to April 2025 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

## List of Addressees

The Honorable Roger Wicker  
Chairman



The Honorable Jack Reed  
Ranking Member  
Committee on Armed Services  
United States Senate

The Honorable Mike Rogers  
Chairman

The Honorable Adam Smith  
Ranking Member  
Committee on Armed Services  
House of Representatives

We are sending copies of this report to the appropriate congressional committees and the Secretary of Defense. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

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## Endnotes

<sup>1</sup>Our definition is based on the clinical definition of sepsis published in 2016 by a task force of experts convened by the Society of Critical Care Medicine and the European Society of Intensive Care Medicine. See Mervyn Singer et al, "The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)," *JAMA*, vol. 315, no. 8 (2016).

<sup>2</sup>See Shannon A. Novosad et al, "Vital Signs: Epidemiology of Sepsis: Prevalence of Health Care Factors and Opportunities for Prevention," *Morbidity and Mortality Weekly Report (MMWR)*, vol. 65, no. 33 (2016); Chanu Rhee et al, "Incidence and Trends of Sepsis in US Hospitals Using Clinical vs Claims Data, 2009-2014," *JAMA*, vol. 318, no. 13 (2017); and Chanu Rhee et al, "Prevalence, Underlying Causes, and Preventability of Sepsis-Associated Mortality in US Acute Care Hospitals," *JAMA Network Open*, vol. 2, no. 2 (2019).

<sup>3</sup>See Department of Health and Human Services, Centers for Disease Control and Prevention, *Hospital Sepsis Program Core Elements* (Atlanta, Ga.: August 2023).

<sup>4</sup>See Department of Health and Human Services, Agency for Healthcare Research and Quality, *AHRQ Report to Congress: An Assessment of Sepsis in the United States and Its Burden on Hospital Care* (Rockville, Md.: September 2024).

<sup>5</sup>See Theresa Madaline et al, "Early Infectious Disease Consultation Is Associated with Lower Mortality in Patients with Severe Sepsis or Septic Shock Who Complete the 3-Hour Sepsis Treatment Bundle," *Open Forum Infectious Diseases* (Oct. 2019), doi: 10.1093/ofid/ofz408.

<sup>6</sup>Department of Health and Human Services, Centers for Disease Control and Prevention, *Hospital Sepsis Program Core Elements*.

<sup>7</sup>See Laura Evans et al., "Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021," *Critical Care Medicine*, vol. 49, no. 11 (2021): e1063-e1143.

<sup>8</sup>The Joint Commission is a not-for-profit organization that sets standards for, accredits, and certifies more than 22,000 health care organizations and programs in the United States, including military medical treatment facilities. See "Disease-Specific Care Certification," The Joint Commission, accessed February 12, 2025, <https://www.jointcommission.org/-/media/tjc/documents/accred-and-cert/certification/certification-by-setting/disease-specific-care-certification/dsc-infection-brochure-lwz-version.pdf>.

<sup>9</sup>These admissions represent 13,586 unique beneficiaries, of which 2,667 (20 percent) had more than one inpatient admission involving a diagnosis of sepsis of any severity, ranging from two to eight admissions each year. According to DHA officials, reasons for multiple admissions could include transfers to different military medical treatment facilities; readmissions that involved a diagnosis of sepsis; or separate admissions that involved the condition.

<sup>10</sup>Of the remaining 14 percent of admissions, 8 percent did not involve a diagnosis of sepsis of any severity upon admission. DHA could not provide values to indicate whether sepsis was present on admission for the other 6 percent of admissions, due to records either missing the appropriate indicator or having a potentially incorrect indicator. According to DHA officials, the missing or potentially incorrect indicators were caused by an issue with the agency's new electronic health record system, which has since been resolved.

<sup>11</sup>For example, the data indicate that admissions involving sepsis also involved a range of other diagnoses, such as acute kidney failure, hypertension, and pneumonia.

<sup>12</sup>These admissions represent 275,058 unique DOD beneficiaries, of which 39,119 (14 percent) had more than one inpatient admission involving a diagnosis of sepsis of any severity, ranging from two to twelve admissions each year. These admissions also represent approximately 11 percent of the more than 2.4 million total inpatient admissions in the private sector care system for this period. For context, DOD has reported that the cost of inpatient sepsis care for the direct care and private sector care systems was \$96 million in fiscal year 2020. See Department of Defense, *Evaluation of the TRICARE Program: Fiscal Year 2021 Report to Congress* (February 26, 2021).

<sup>13</sup>Defense Health Agency, *Establishing Comprehensive Sepsis Strategy within Direct Care Hospital Settings in the Military Medical Treatment Facilities*, Policy Memorandum 25-005 (Falls Church, Va.: February 2025).

<sup>14</sup>See Department of Health and Human Services, Centers for Disease Control and Prevention, *Hospital Sepsis Program Core Elements*, and Laura Evans et al., "Surviving Sepsis Campaign."

<sup>15</sup>According to the memorandum, military medical treatment facilities must establish the multi-disciplinary teams within 90 days of the memorandum's February 2025 publication date.

<sup>16</sup>We used data DHA provided to us as well as publicly available data to compare the performance of each military medical treatment facility on these measures (based on confidence intervals, where available) to the benchmark rates applicable to calendar year 2023. The benchmark rates are generated by each quality measurement program and facilitate comparisons across all hospitals for each measure (including military medical treatment facilities as well as civilian hospitals). According to these data, the benchmark rates applicable to calendar year 2023 were as follows for each sepsis-related measure: 62 percent for the measure of patients receiving appropriate care for sepsis in hospital settings (the Centers for Medicare & Medicaid Services' sepsis care measure); 22.568 per 100 discharges for the death rate among surgical inpatients with sepsis as a serious treatable complication (the Agency for Healthcare Research and Quality's Patient Safety Indicator 04); 0.426 per 100 discharges for the rate of postoperative sepsis following elective surgery (the Agency for Healthcare Research and Quality's Patient Safety Indicator 13); and 0.91 percent for the rate of postoperative sepsis (the American College of Surgeons' postoperative sepsis measure).

<sup>17</sup>According to data provided by DHA, the one military medical treatment facility that did not perform comparable to, or better than, the benchmark rate for this measure had a single case of postoperative sepsis following elective surgery that contributed to this result.

<sup>18</sup>Staff from one of the selected military medical treatment facilities shared information regarding issues related to the initial screening and administration of antibiotics and fluids in a few sepsis cases. However, staff did not identify these issues as major challenges.

<sup>19</sup>We also reached out to four selected military service organizations regarding any feedback they had received from DOD beneficiaries about sepsis care at military medical treatment facilities. The four selected organizations were the National Military Family Association, the Air & Space Forces Association, the Association of the United States Navy, and the Association of the United States Army. Staff from two of the selected organizations shared they had not received any such feedback or learned of any such concerns. Staff from the other two selected organizations shared that they do not maintain this type of information or were otherwise unable to respond to our request.

<sup>20</sup>The four selected military medical treatment facilities were Alexander T. Augusta Military Medical Center (Fort Belvoir, Va.), Brooke Army Medical Center (Fort Sam Houston, Tex.), Naval Hospital Camp Pendleton (Camp Pendleton, Calif.), and 88<sup>th</sup> Medical Group Wright-Patterson Air Force Base (Wright-Patterson Air Force Base, Ohio).