



Hospital Sepsis Management and Practices: Findings from the 2023 NHSN Annual Survey



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Hospital Sepsis Management and Practices: Findings from the 2023 National Healthcare Safety Network Patient Safety Component Annual Survey is a publication of the Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention.

Suggested citation: CDC. Hospital Sepsis Management and Practices: Findings from the 2023 National Healthcare Safety Network Patient Safety Component Annual Survey. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2024. www.cdc.gov/sepsis/media/pdfs/hospital-2023-annual-survey-508-pdf.

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Key Points

Question: What practices have U.S. hospitals implemented to monitor and treat sepsis around the release of the CDC Hospital Sepsis Program Core Elements in 2023?

Findings: Nationwide hospital survey results show modest increases in the prevalence and support for hospital sepsis programs in 2023 compared to 2022. However, many programs could benefit from executive sponsorship, improved assessment of the usability of local hospital sepsis tools, processes to support recovery from sepsis, education to certified nursing assistants and patient care technicians, processes to support prompt antimicrobial administration, and access to key sepsis data.

Meaning: Survey results demonstrate modest initial progress in resourcing U.S. hospital sepsis programs in 2023 though many opportunities remain to further strengthen hospital sepsis programs to optimize patient care and outcomes.

Abstract

Importance: Hospital quality improvement programs focused on sepsis have demonstrated reductions in mortality, length of stay, and healthcare costs. The CDC's Hospital Sepsis Program Core Elements was released on August 24, 2023, to provide guidance and best practices for implementation of sepsis programs intended to improve patient care and outcomes.

Objective: To evaluate adoption of key structures and practices recommended in the CDC Hospital Sepsis Program Core Elements in U.S. hospitals.

Methods: All U.S. hospitals enrolled and active in the National Healthcare Safety Network Patient Safety Component were required to answer 14 questions regarding hospital sepsis program structure and practices during calendar year 2023.

Results: Among 5,254 responding hospitals, 78% reported having sepsis committees, 59% reported sufficient dedicated time for sepsis leadership, and 67% reported sufficient data analytics resources, all modest improvements over the prior reporting year. Sixty-six percent of hospitals tracked progress towards achieving hospital sepsis goals, ranging from 44% among hospitals with 0–25 beds to 88% among hospitals with >500 beds. Usability or acceptability of sepsis tools (i.e., clinician acceptance) was tracked by 45% of hospitals. Sixty-four percent of hospitals used antimicrobial orders that default to immediate administration in cases of suspected sepsis. Standardized processes for verbal hand-off were reported by 32% of hospitals, while 32% reported standardized screening for new functional or cognitive impairment. Thirty-eight percent of hospitals provided patients with contact information for clinical staff at discharge. Sepsis education during onboarding and annual sepsis education for certified nursing assistants and patient care technicians was reported by 22–23% of hospitals.

Conclusions: Survey results around the release of the Core elements demonstrate modest initial progress in resourcing hospital sepsis programs, with many opportunities to strengthen hospital sepsis programs to optimize patient care. These areas include executive sponsorship, evaluating the usability of local sepsis tools, implementing processes to support sepsis recovery, improving education to certified nursing assistants and patient care technicians, implementing processes to support prompt antimicrobial administration, and improving access to key sepsis data.

Introduction

Early recognition and treatment of sepsis has been a focus of both clinical guidelines as well as state and federal regulatory programs.¹⁻³ Sepsis is also associated with readmissions to the hospital and long-term adverse health outcomes for patients.⁴⁻⁶ Hospitals that have instituted quality improvement programs focused on sepsis have demonstrated reductions in mortality, length of stay, and healthcare costs.^{7,8} On August 24, 2023, CDC released the Hospital Sepsis Program Core Elements (Sepsis Core Elements),⁹ a guide to help hospitals develop multi-professional programs to monitor and to optimize early identification, management, and outcomes of patients with sepsis.

CDC's National Healthcare Safety Network (NHSN) is the nation's most widely used surveillance system for tracking patient and healthcare personnel safety measures. Hospitals reporting data to NHSN are required to complete an annual survey which includes questions regarding patient safety practices. Questions on hospital sepsis program practices were first added to the 2022 NHSN Patient Safety Annual Survey to describe baseline practices¹⁰ and were expanded in 2023 to reflect the practices recommended in the Sepsis Core Elements.

Methods

All U.S. hospitals are eligible to enroll in NHSN. Enrolled and active hospitals were required to complete the 2023 NHSN Patient Safety Component Annual Hospital Survey between January 1 and March 1, 2024. Hospitals are considered active if they submitted a 2022 or 2023 survey. Hospital staff members completed the survey electronically, based on hospital practices that occurred during 2023, using the NHSN web-based application and responding to 14 questions regarding hospital sepsis program structures and practices. A descriptive analysis, stratified by hospital size (number of beds), was completed on responses received through June 1, 2024, using SAS (version 9.4; SAS Institute). This activity was reviewed by CDC and was conducted consistent with applicable federal law and CDC policy.*

Results by Core Element

As of June 1, 2024, among 5,452 hospitals enrolled and active in the NHSN Patient Safety Component, 5,254 had completed the survey and were included in the analysis (96% completion rate) (Table 1).

Hospital Leadership Commitment

Overall, 3,092 (59%) hospitals indicated that sepsis program leaders were provided sufficient specified time to manage the hospital sepsis program (Table 3), an increase from 2,875 of 5,221 hospitals (55%) the previous year,¹⁰ though this was more common among the largest hospitals (>500 beds) compared to the smallest (0–25 beds; 78% vs. 41%). The amount of specified effort for sepsis program leaders varied by professional background

Hospital Leadership

Many sepsis programs can benefit from increasing support for sepsis leaders, ensuring access to data analytics resources, and providing executive sponsorship.

(physician, nurse, advanced practice provider [APP]), with higher percentages of total effort among nurse and APP leaders, and lower efforts among physician leaders (Table 3). Sufficient data analytics and information technology resources were provided in 3,542 (67%) hospitals, an increase from 3,408 (65%) the previous year (Table 3).¹⁰ Executive sponsors were reported by 2,884 (55%) hospitals (Table 3). Sepsis was identified as a priority and communicated to hospital staff in 3,808 (72%) hospitals (Table 3). For each leadership question, larger hospitals more frequently indicated hospital leadership commitment than smaller hospitals.

Accountability

Committees charged with monitoring and reviewing sepsis management and/or outcomes were reported by 4,087 (78%) hospitals (Table 2), compared to 3,787 (73%) the previous year.¹⁰ These committees were least prevalent in hospitals with 0–25 beds (59%), and progressively more prevalent as hospital size increased (Table 2). Among 3,790 hospitals (72%) having one or two designated leaders for the sepsis program, the leader(s) were most frequently a nurse (80%), followed by a physician (59%), with 1,600 hospitals (42%) having both a physician and nurse leader (Table 3). Progress towards achieving hospital goals for sepsis treatment and/or outcomes was tracked by 3,221 (79%) hospitals (Table 3).

Multi-professional Expertise

Among 4,087 hospitals with sepsis committees, representation was frequently reported from the Emergency Department (89%), Hospital Medicine (81%), and Critical Care/Intensive Care (71%) services or locations (Table 2). Antimicrobial stewardship or Infectious Diseases representatives were included in 74% of sepsis committees (Table 2), compared to 65% the previous year.¹⁰ Most sepsis committees also included representatives from Pharmacy (74%), Laboratory (62%), and Data Analytics (58%) (Table 2).

Action

Hospitals reported a variety of standardized approaches to identify sepsis upon patient presentation and throughout hospitalization, including manual screening, electronic health records-based screening, screening for clinical instability, and screening for sepsis criteria (Table 3). More than one screening approach was used by 69–71% of hospitals, and 6–7% of hospitals reported not using any of the listed approaches upon patient presentation or throughout hospitalization. Hospital guidelines or care pathways for management of sepsis were reported by 3,728 (71%) hospitals (Table 3). Order sets for management of sepsis were reported by 4,512 (86%) hospitals and structured templates for documentation of sepsis treatment were reported by 2,559 (49%) hospitals (Table 3).

Hospitals used various approaches to promote rapid antimicrobial delivery, with 4,118 (78%) hospitals stocking common antimicrobials in locations outside of the pharmacy, 3,341 (64%) immediately processing new antimicrobial orders in patients with sepsis, 2,214 (42%) using orders that default to immediate administration of new antimicrobials, and 2,239 (43%) with pharmacists on-site in key locations outside the pharmacy (Table 3).

Standardized processes for verbal hand-off of sepsis treatment were reported in 1,692 (32%) hospitals (Table 3). Practices to support sepsis recovery and discharge planning were variable, with 4,157 (79%) hospitals reporting medication reconciliation and optimization, 3,495 (67%)

reporting screening for social vulnerability and referrals to support services, and 3,038 (58%) reporting communication of the sepsis diagnosis and care plan to the primary care physician. Only 2,021 (38%) hospitals reported providing patients with contact information to the hospital clinical staff at discharge, 1,677 (32%) screened patients for new functional or cognitive impairment, and 1,585 (30%) contacted patients within 2 days of discharge.

Tracking

Hospitals reported tracking various sepsis metrics, with 3,799 (72%) tracking hospital sepsis outcomes (e.g., mortality, length of hospitalization), 4,018 (76%) tracking sepsis treatment metrics (e.g., time-to-antibiotics, type, and volume of fluid delivery), and 2,637 (50%) tracking sepsis epidemiology (Table 3). Tracking of progress towards achieving hospital goals for sepsis treatment and/or outcomes was reported by 3,486 (66%) hospitals (Table 3). Each of these metrics notably varied by hospital size. For example, 61% of hospitals with 0–25 beds tracked sepsis treatment metrics, compared to 90% of hospitals with >500 beds.

Regarding the use of local sepsis tools, 3,198 (61%) hospitals track the use, 2,371 (45%) track the usability or acceptability, and 2,373 (45%) track the impact of sepsis tools (Table 3). A similar low to high gradient was observed for these metrics moving from small to large hospitals. Use of manual chart review to support performance improvement was reported to varying degrees, with 2,113 (40%) hospitals reviewing all sepsis hospitalizations, 1,651 (31%) reviewing a sample of hospitalizations, 778 (15%) reviewing hospitalizations with adverse outcomes, and 712 (14%) not routinely reviewing charts.

Reporting

Data on sepsis treatment and/or outcomes were reported to unit- or service-based leadership at varying frequencies, with 692 (13%) hospitals providing continuous reporting, 2,274 (43%) at least monthly reporting, and 891 (17%) either not reporting or reporting less often than annually (Table 3).

Among hospitals that report data on sepsis treatment and/or outcomes, 3,084 (71%) reported unit- or service-specific data, 2,271 (52%) reported clinician-specific data, 2,847 (65%) reported benchmarking or comparative data, and 1,898 (44%) reported temporal trends (Table 3).

Support for Sepsis Recovery

Most hospitals could improve support for patients recovering from sepsis. Some examples include standardizing screening for functional or cognitive impairment and providing contact information for clinical staff upon discharge.

Sepsis Tools

Tracking the usability or acceptability of sepsis tools (e.g. clinician acceptability, how often a sepsis order-set is used) is recommended to improve the impact of these tools on improving patient care yet is performed by fewer than half of hospitals.

Education

Sepsis education during hiring or onboarding varied by professional background, with 4,005 (76%) hospitals providing education for nurses, 2,950 (56%) for physicians, and 1,620 (31%) for trainees of various types, 1,179 (22%) for patient care technicians, and 1,154 (22%) for certified nursing assistants (Table 3). Of note, 1,050 (20%) hospitals did not provide sepsis education to any professional groups during the hiring or onboarding process.

Annual sepsis education was provided in similar proportions to hiring or onboarding sepsis education, with 3,901 (74%) hospitals reporting annual education for nurses, 2,900 (55%) for physicians, 1,204 (23%) for patient care technicians, and 1,190 (23%) for certified nursing assistants (Table 3). Of note, 1,162 (22%) hospitals did not provide annual sepsis education to any of these professional groups

Education

Most hospitals could improve sepsis education to certified nursing assistants and patient care technicians to improve the likelihood sepsis is recognized early.

Discussion

This survey of U.S. acute care hospitals describes the evolving state of sepsis programs in 2023, with the Sepsis Core Elements released in the latter half of the year. Thus, these survey of 2023 practices likely represent a combination of “pre-” and “post-” Core Elements influence. These survey results show modest increases in the prevalence of sepsis programs and resources to support those sepsis programs. Modest increases were also seen in the frequency that leadership of the sepsis program was provided sufficient time to lead the program compared to the previous year. Yet approximately four in 10 hospitals reported not providing program leadership with enough time to manage the program, with smaller hospitals less likely to report adequate leadership support than larger hospitals. Notable improvements were also seen in the integration of antibiotic stewardship or infectious disease services with sepsis programs.

This survey highlights many broad opportunities for improving hospital sepsis program practices. While the use of sepsis tools to screen and treat sepsis was commonly reported by 9 out of 10 hospitals, less than half of hospitals tracked the usability and impact of their sepsis tools. Users of sepsis screening tools, even newer predictive models, have raised concerns with poor accuracy and alert fatigue.^{11,12} While the optimal approach to sepsis screening is not known, it is crucial for hospitals to understand the usability of their tools in their patient population. Incorporating feedback from their staff will help refine these tools to optimize sepsis care and minimize distractions from other life-saving care.

This survey also highlights gaps in practices employed by sepsis programs to improve recovery and post-discharge care for patients with sepsis, including a lack of emphasis on standardized patient hand-offs, functional/cognitive impairment screening, and post-discharge contact.

While these survey results demonstrate relatively high frequency of nursing education on sepsis during onboarding and annually, similar education for certified nursing assistants and patient

care technicians was much less frequent. These front-line staff frequently obtain vital signs and perform other direct patient care tasks. Thus, increased sepsis awareness education in these healthcare workers could improve early recognition of sepsis among hospitalized patients.

Many sepsis programs could be strengthened with an executive sponsor. The composition of sepsis programs in some hospitals could be improved by including representatives of antibiotic stewardship (or infectious disease), pharmacy, and data analytics. From an accountability standpoint, one in four programs did not set annual goals and one in three hospitals did not track progress towards treatment or outcome goals. Only 4 in 10 hospitals have physician and nurse co-leaders of the sepsis program.

This survey also identified opportunities to streamline rapid antibiotic administration, a key feature of clinical guidelines.^{1,13} Antimicrobial orders for patients with sepsis should be processed immediately to facilitate rapid administration, yet over one-third of hospitals reported this function was lacking. Changing antimicrobial orders in sepsis to immediate processing may be a relatively simple change that could incrementally improve sepsis care for every hospitalized patient.

This survey highlighted the opportunity to improve access to usable sepsis data, especially among smaller hospitals, which may have less access to analytic tools and resources. It may be possible to close this data gap using analytic tools embedded in increasingly sophisticated Electronic Health Record (EHR) systems, or through an external analytic tool that leverages advancements in data interoperability, such as Fast Healthcare Interoperability Resources (FHIR).

The creation of the Sepsis Core Elements was based on a combination of literature and guideline review, expert opinion, and data from the Michigan Hospital Medicine Consortium. Individual hospitals or systems have identified specific aspects of the Sepsis Core Elements as the keys to their success. However, further research is needed to determine the relationship between the degree of adherence to the Sepsis Core Elements and measures of successful sepsis care, including process and outcome measures, across all hospitals.

In analogous CDC initiatives, such as the CDC Core Elements of Hospital Antibiotic Stewardship Programs,¹⁴ CDC has produced hospital-level summary measures of core element implementation, which has been helpful in assessing and summarizing the uptake of antibiotic stewardship program best practices.¹⁵ The creation of a similar summary score for the Sepsis Core Elements was outside of the scope of this report. CDC is determining the best approach for assessing and summarizing Sepsis Core Element performance.

The findings of this report are subject to several limitations. First, hospitals reported on the presence of various clinical services including Hospital Medicine, Neonatal Intensive Care, Critical Care, Obstetrics/Labor & Delivery, and Pediatrics. However, these clinical services are not present in all hospitals, and thus conclusions cannot be made about whether their lack of representation on some hospitals' sepsis committees represents a gap or is simply because those hospitals do not provide care for those patient populations. Finally, the survey is self-reported and not independently verified.

In conclusion, nationwide survey results around the release of the CDC Hospital Sepsis Program Core Elements indicate modest increases in the prevalence and support for sepsis programs across U.S. acute care hospitals, with many opportunities to improve leadership support, evaluate the usability of sepsis tools, improve education to certified nursing assistants and patient care technicians, promote processes to support patients' recovery from sepsis, streamline antimicrobial administration, and provide access to key sepsis data.

*45 C.F.R. part 46, 21C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C. Sect. 3501 et seq.

References

1. Dellinger RP, Rhodes A, Evans L, et al. Surviving Sepsis Campaign. *Critical Care Medicine*. Apr 1 2023;51(4):431–444. doi:10.1097/CCM.0000000000005804
2. Kahn JM, Davis BS, Yabes JG, et al. Association Between State-Mandated Protocolized Sepsis Care and In-hospital Mortality Among Adults With Sepsis. *JAMA*. Jul 16 2019;322(3):240–250. doi:10.1001/jama.2019.9021
3. Levy MM, Gesten FC, Phillips GS, et al. Mortality Changes Associated with Mandated Public Reporting for Sepsis. The Results of the New York State Initiative. *Am J Respir Crit Care Med*. Dec 1 2018;198(11):1406–1412. doi:10.1164/rccm.201712-2545OC
4. Mayr FB, Talisa VB, Balakumar V, Chang CH, Fine M, Yende S. Proportion and Cost of Unplanned 30-Day Readmissions After Sepsis Compared With Other Medical Conditions. *JAMA*. Feb 7 2017;317(5):530–531. doi:10.1001/jama.2016.20468
5. Prescott HC, Angus DC. Enhancing Recovery From Sepsis: A Review. *JAMA*. Jan 2 2018;319(1):62–75. doi:10.1001/jama.2017.17687
6. Prescott HC, Osterholzer JJ, Langa KM, Angus DC, Iwashyna TJ. Late mortality after sepsis: propensity matched cohort study. *BMJ*. May 17 2016;353:i2375. doi:10.1136/bmj.i2375
7. Afshar M, Arain E, Ye C, et al. Patient Outcomes and Cost-Effectiveness of a Sepsis Care Quality Improvement Program in a Health System. *Critical Care Medicine*. Oct 2019;47(10):1371–1379. doi:10.1097/CCM.0000000000003919
8. Sreeramoju P, Voy-Hatter K, White C, et al. Results and lessons from a hospital-wide initiative incentivised by delivery system reform to improve infection prevention and sepsis care. *BMJ Open Qual*. Feb 2021;10(1) doi:10.1136/bmjopen-2020-001189
9. CDC. Hospital Sepsis Program Core Elements. Atlanta, GA: US Department of Health and Human Services, CDC; 2023. Available at <https://www.cdc.gov/sepsis/core-elements.html>
10. Dantes RB, Kaur H, Bouwkamp BA, et al. Sepsis Program Activities in Acute Care Hospitals—National Healthcare Safety Network, United States, 2022. *MMWR Morbidity and mortality weekly report*. Aug 25 2023;72(34):907–911. doi:10.15585/mmwr.mm7234a2
11. The Lancet Respiratory M. Crying wolf: the growing fatigue around sepsis alerts. *Lancet Respir Med*. Mar 2018;6(3):161. doi:10.1016/S2213-2600(18)30072-9
12. Lyons PG, Hofford MR, Yu SC, et al. Factors Associated With Variability in the Performance of a Proprietary Sepsis Prediction Model Across 9 Networked Hospitals in the US. *JAMA Intern Med*. Jun 1 2023;183(6):611–612. doi:10.1001/jamainternmed.2022.7182
13. Weiss SL, Peters MJ, Alhazzani W, et al. Surviving Sepsis Campaign International Guidelines for the Management of Septic Shock and Sepsis-Associated Organ Dysfunction in Children. *Pediatr Crit Care Med*. Feb 2020;21(2):e52–e106. doi:10.1097/PCC.0000000000002198
14. Core Elements of Hospital Antibiotic Stewardship Programs. (Centers for Disease Control and Prevention) (2019).
15. Centers for Disease Control and Prevention. Antimicrobial Resistance & Patient Safety Portal. Centers for Disease Control and Prevention. Accessed June 16, 2022. <https://arpsp.cdc.gov/profile/stewardship>

Acknowledgements

Special thanks to CDC's Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, for leading the development of this report.

Beth Bouwkamp

Kathryn Haass

Prachi Patel

Raymund B. Dantes

Hemjot Kaur

Audrey Robnett-Brown

Scott Decker

Lindsey Lastinger

Arjun Srinivasan

Margaret Dudeck

Shelley Magill

Mary Whitaker

Nicole Gladden

Pranjal Muthe

W. Wyatt Wilson

Additional thanks to the following external organization

University of Michigan

Jennifer K. Horowitz

Patricia J. Posa

Elizabeth S. McLaughlin

Hallie C. Prescott

Tables

Table 1: Number of Hospitals that Completed a National Healthcare Safety Network, Patient Safety Component 2023 Annual Hospital Survey*†

No. of Beds	Number of Hospitals that Completed a 2023 Survey‡ n (%)
0–25	1629 (31)
26–50	615 (12)
51–100	705 (13)
101–250	1287 (24)
251–500	765 (15)
>500	253 (5)
Total	5254 (100)

* Data based on dataset frozen on June 1, 2024

† Dataset includes data from ACH (Acute Care Hospitals) and CAH (Critical Access Hospitals)

‡ 5254 hospitals completed the survey among 5452 National Healthcare Safety Network-enrolled and active hospitals (96% completion rate)

Table 2: Sepsis Committee Utilization, Responsibilities, and Representation in Acute Care and Critical Access Hospitals—National Healthcare Safety Network, Patient Safety Component 2023 Annual Hospital Survey*

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Our facility has a committee charged with monitoring and reviewing sepsis care and/or outcomes†	4087 (78)	959 (59)	452 (73)	592 (84)	1137 (88)	707 (92)	240 (95)

If Yes, the responsibilities of this committee include the following: (Check all that apply; check at least one)‡§#

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Developing and updating hospital sepsis guidelines	3564 (87)	807 (84)	391 (87)	506 (85)	998 (88)	643 (91)	219 (91)
Developing and updating hospital sepsis order sets	3487 (85)	776 (81)	383 (85)	501 (85)	978 (86)	627 (89)	222 (93)
Monitor and review compliance with Centers for Medicare and Medicaid SEP-1 measure	3638 (89)	750 (78)	417 (92)	544 (92)	1053 (93)	646 (91)	228 (95)
Monitor and review effectiveness of early sepsis identification strategies	3574 (87)	768 (80)	373 (83)	515 (87)	1042 (92)	650 (92)	226 (94)
Monitoring and reviewing management of patients with sepsis	3679 (90)	827 (86)	400 (88)	526 (89)	1047 (92)	656 (93)	223 (93)
Monitor and review outcomes among patients with sepsis	3507 (86)	727 (76)	388 (86)	508 (86)	1010 (89)	650 (92)	224 (93)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Monitor and review antimicrobial use in sepsis in conjunction with antimicrobial stewardship or infectious disease staff	2572 (63)	587 (61)	260 (58)	360 (61)	738 (65)	472 (67)	155 (65)
Providing education to hospital staff on sepsis	3763 (92)	847 (88)	413 (91)	543 (92)	1064 (94)	668 (94)	228 (95)
Setting annual goals for sepsis management and/or outcomes	3221 (79)	642 (67)	344 (76)	463 (78)	954 (84)	609 (86)	209 (87)
None of the above	16 (<1%)	4 (<1%)	1 (<1%)	4 (1)	4 (<1%)	2 (<1%)	1 (<1%)

If Yes, this program or committee includes representatives with the following backgrounds healthcare personnel: (Check all that apply; check at least one)*\$#

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Physician	3799 (93)	816 (85)	407 (90)	550 (93)	1099 (97)	690 (98)	237 (99)
Nurse	3943 (96)	910 (95)	429 (95)	571 (96)	1107 (97)	688 (97)	238 (99)
Pharmacist	3191 (78)	705 (74)	331 (73)	436 (74)	940 (83)	585 (83)	194 (81)
Advanced practice provider (for example, Physician Assistant, Nurse Practitioner)	1529 (37)	322 (34)	137 (30)	194 (33)	431 (38)	305 (43)	140 (58)
Social Worker	258 (6)	56 (6)	19 (4)	28 (5)	86 (8)	46 (7)	23 (10)
Quality Improvement staff member	3788 (93)	840 (88)	418 (92)	557 (94)	1081 (95)	662 (94)	230 (96)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Case manager	731 (18)	200 (21)	75 (17)	94 (16)	222 (20)	107 (15)	33 (14)
Microbiology lab staff member	1972 (48)	410 (43)	231 (51)	268 (45)	609 (54)	346 (49)	108 (45)
Discharge planner	426 (10)	136 (14)	47 (10)	43 (7)	121 (11)	52 (7)	27 (11)
None of the Above	11 (<1%)	3 (<1%)	0 (0)	4 (1)	2 (<1%)	2 (<1%)	0(0)

If Yes, this committee includes representatives from the following hospital locations or services (Check all that apply; check at least one)^{†§#}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Emergency Department	3648 (89)	777 (81)	391 (87)	529 (89)	1056 (93)	665 (94)	230 (96)
Hospital Medicine	3320 (81)	713 (74)	360 (80)	472 (80)	959 (84)	605 (86)	211 (88)
Neonatal Intensive Care	262 (6)	29 (3)	13 (3)	32 (5)	93 (8)	70 (10)	25 (10)
Critical Care/Intensive Care (excluding Neonatal intensive care)	2904 (71)	357 (37)	289 (64)	463 (78)	958 (84)	616 (87)	221 (92)
Obstetrics/Labor and Delivery	706 (17)	118 (12)	67 (15)	98 (17)	225 (20)	147 (21)	51 (21)
Pediatrics	412 (10)	52 (5)	29 (6)	51 (9)	118 (10)	112 (16)	50 (21)
Infectious Disease	1813 (44)	332 (35)	174 (38)	255 (43)	554 (49)	357 (50)	141 (59)
Antimicrobial Stewardship	2712 (66)	685 (71)	300 (66)	357 (60)	748 (66)	461 (65)	161 (67)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Infectious Disease or Antimicrobial Stewardship [¶]	3020 (74)	730 (76)	329 (73)	406 (69)	854 (75)	520 (74)	181 (75)
Pharmacy	3026 (74)	684 (71)	312 (69)	417 (70)	891 (78)	539 (76)	183 (76)
Laboratory	2533 (62)	578 (60)	279 (62)	363 (61)	752 (66)	426 (60)	135 (56)
Information Technology	1763 (43)	287 (30)	182 (40)	247 (42)	532 (47)	363 (51)	152 (63)
Data Analytics	2355 (58)	399 (42)	251 (56)	333 (56)	728 (64)	471 (67)	173 (72)
None of the above	50 (1)	17 (2)	6 (1)	10 (2)	12 (1)	5 (1)	0 (0)

* Data based on dataset frozen on June 1, 2024

† Required survey question completed by all hospitals that submitted a 2023 Annual Hospital Survey. “Yes” responses shown.

‡ A conditionally required survey sub-question is triggered by the facility’s distinct response to a required parent question in the survey.

§ Hospitals may select more than one response per question.

¶ Hospitals that responded with either Infectious Disease or Antimicrobial Stewardship representation or both.

Denominator for sub-questions: All facilities which responded to parent question “Our facility has a committee charged with monitoring and reviewing sepsis care and/or outcomes” = ‘Y’

Table 3: Sepsis Program Characteristics in Acute Care and Critical Access Hospitals–National Healthcare Safety Network, Patient Safety Component 2023 Annual Hospital Survey*

Our facility has one leader or two co-leaders responsible for sepsis program or committee management and outcomes.†

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Yes	3790 (72)	868 (53)	404 (66)	551 (78)	1067 (83)	677 (88)	223 (88)
No (we have no designated leaders)	1289 (25)	721 (44)	186 (30)	133 (19)	173 (13)	61 (8)	15 (6)
No (we have more than 2 leaders)	175 (3)	40 (2)	25 (4)	21 (3)	47 (4)	27 (4)	15 (6)

If yes selected in (the above question regarding sepsis leaders): What is the professional background of the sepsis program or committee leaders(s)?*§¶

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Advanced practice provider (APP)	278 (7)	56 (6)	24 (6)	24 (4)	83 (8)	57 (8)	34 (15)
Nurse	3028 (80)	749 (86)	332 (82)	457 (83)	836 (78)	509 (75)	145 (65)
Physician	2240 (59)	403 (46)	232 (57)	308 (56)	680 (64)	445 (66)	172 (77)
Both Nurse and Physician	1600 (42)	307 (35)	171 (42)	230 (42)	482 (45)	310 (46)	100 (45)
None of the above	75 (2)	16 (2)	6 (1)	11 (2)	20 (2)	21 (3)	1 (<1%)

If Yes selected in (the above question regarding sepsis leaders): Did the sepsis program leader(s) participate in responding to these questions?#†

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Yes	3388 (89)	773 (89)	358 (89)	493 (89)	953 (89)	608 (90)	203 (91)
No	402 (11)	95 (11)	46 (11)	58 (11)	114 (11)	69 (10)	20 (9)

If APP selected in (the above question regarding professional background of sepsis program or committee leader[s]): What percentage of the APP leader's effort is specified for sepsis activities? If there are two APP leaders, please indicate the sum of their combined effort if it were applied towards a single APP.##

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
0% (Sepsis activities are voluntary with no specified effort)	15 (5)	1 (2)	2 (8)	3 (13)	6 (7)	3 (5)	0(0)
1–10%	51 (18)	27 (48)	6 (25)	2 (8)	9 (11)	3 (5)	4 (12)
11–25%	63 (23)	6 (11)	6 (25)	7 (29)	20 (24)	12 (21)	12 (35)
26–50%	30 (11)	1 (2)	2 (8)	3 (13)	12 (14)	11 (19)	1 (3)
More than 50%	75 (27)	9 (16)	6 (25)	4 (17)	20 (24)	21 (37)	15 (44)
Not specified	44 (16)	12 (21)	2 (8)	5 (21)	16 (19)	7 (12)	2 (6)

If nurse selected in (the above question regarding professional background of sepsis program or committee leader[s]): What percentage of the nurse leader's effort is specified for sepsis activities? If there are two nurse leaders, please indicate the sum of their combined effort if it were applied towards a single nurse.^{††}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
0% (Sepsis activities are voluntary with no specified effort)	115 (4)	30 (4)	14 (4)	22 (5)	25 (3)	20 (4)	4 (3)
1–10%	726 (24)	327 (44)	95 (29)	97 (21)	123 (15)	62 (12)	22 (15)
11–25%	571 (19)	131 (17)	65 (20)	112 (25)	163 (19)	78 (15)	22 (15)
26–50%	412 (14)	69 (9)	41 (12)	68 (15)	153 (18)	63 (12)	18 (12)
More than 50%	816 (27)	100 (13)	64 (19)	102 (22)	267 (32)	219 (43)	64 (44)
Not specified	388 (13)	92 (12)	53 (16)	56 (12)	105 (13)	67 (13)	15 (10)

If physician selected in (the above question regarding professional background of sepsis program or committee leader[s]): What percentage of the physician leader's effort is specified for sepsis activities? If there are two physician leaders, please indicate the sum of their combined effort if it were applied towards a single physician.^{†††}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
0% (Sepsis activities are voluntary with no specified effort)	161 (7)	32 (8)	17 (7)	30 (10)	38 (6)	35 (8)	9 (5)
1–10%	864 (39)	207 (51)	111 (48)	119 (39)	238 (35)	127 (29)	62 (36)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
11–25%	453 (20)	60 (15)	27 (12)	62 (20)	141 (21)	109 (24)	54 (31)
26–50%	249 (11)	39 (10)	23 (10)	29 (9)	87 (13)	53 (12)	18 (10)
More than 50%	135 (6)	9 (2)	12 (5)	15 (5)	47 (7)	44 (10)	8 (5)
Not specified	378 (17)	56 (14)	42 (18)	53 (17)	129 (19)	77 (17)	21 (12)

Facility leadership has demonstrated commitment to improving sepsis care by: (Check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Providing sepsis program leader(s) with sufficient specified time to manage the hospital sepsis program.	3092 (59)	670 (41)	350 (57)	446 (63)	869 (68)	560 (73)	197 (78)
Providing sufficient resources, including data analytics and information technology support, to operate the program effectively.	3542 (67)	805 (49)	390 (63)	510 (72)	1000 (78)	622 (81)	215 (85)
Ensuring that relevant staff from key clinical groups and support departments have sufficient time to contribute to sepsis activities.	3125 (59)	739 (45)	351 (57)	443 (63)	858 (67)	549 (72)	185 (73)
Appointing a senior leader to serve as an executive sponsor for the sepsis program.	2884 (55)	535 (33)	302 (49)	427 (61)	849 (66)	559 (73)	212 (84)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Identifying sepsis as a facility priority and communicating this priority to hospital staff.	3808 (72)	957 (59)	419 (68)	541 (77)	1043 (81)	632 (83)	216 (85)
None of the above	804 (15)	446 (27)	111 (18)	84 (12)	107 (8)	49 (6)	7 (3)

Our facility uses the following approaches to assist in identification of sepsis upon presentation to the hospital. (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Manual screening for clinical instability (e.g., MEWS, NEWS score)	1730 (33)	450 (28)	213 (35)	230 (33)	458 (36)	291 (38)	88 (35)
Electronic health record (EHR)-based screening for clinical instability	3163 (60)	836 (51)	361 (59)	420 (60)	840 (65)	518 (68)	188 (74)
Manual screening for sepsis criteria	2842 (54)	794 (49)	342 (56)	381 (54)	753 (59)	435 (57)	137 (54)
Electronic Health Record (EHR)-based screening for sepsis criteria	3981 (76)	1090 (67)	440 (72)	530 (75)	1036 (80)	653 (85)	232 (92)
More than one selected approach	3751 (71)	999 (61)	417 (68)	509 (72)	1001 (78)	613 (80)	212 (84)
None of the above	328 (6)	156 (10)	58 (9)	46 (7)	49 (4)	17 (2)	2 (1)

Our facility uses the following approaches to assist in identification of sepsis throughout hospitalization: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Manual screening for clinical instability (e.g., MEWS, NEWS score)	1735 (33)	425 (26)	209 (34)	243 (34)	466 (36)	307 (40)	85 (34)
Electronic health record (EHR)-based screening for clinical instability	3135 (60)	825 (51)	344 (56)	411 (58)	852 (66)	520 (68)	183 (72)
Manual screening for sepsis criteria	2623 (50)	754 (46)	315 (51)	350 (50)	691 (54)	389 (51)	124 (49)
Electronic Health Record (EHR)-based screening for sepsis criteria	3818 (73)	1055 (65)	423 (69)	518 (73)	995 (77)	608 (79)	219 (87)
More than one selected approach	3635 (69)	963 (59)	393 (64)	497 (70)	973 (76)	606 (79)	203 (80)
None of the above	367 (7)	163 (10)	62 (10)	53 (8)	58 (5)	28 (4)	3 (1)

Our facility uses the following approaches to promote evidence-based management of patients with sepsis: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Hospital guideline or care pathway for management of sepsis	3728 (71)	1004 (62)	409 (67)	512 (73)	981 (76)	605 (79)	217 (86)
Hospital order set for management of sepsis	4512 (86)	1219 (75)	511 (83)	616 (87)	1186 (92)	730 (95)	250 (99)
Structured template for documentation of sepsis treatment	2559 (49)	571 (35)	268 (44)	357 (51)	745 (58)	466 (61)	152 (60)

Table continued on next page

Survey Questions and Responses	All Hospitals	No. of Beds 0–25	No. of Beds 26–50	No. of Beds 51–100	No. of Beds 101–250	No. of Beds 251–500	No. of Beds >500
	5254 (100) n (%)	1629 (31) n (%)	615 (12) n (%)	705 (13) n (%)	1287 (24) n (%)	765 (15) n (%)	235 (5) n (%)
Standardized process for verbal hand-off of sepsis treatment	1692 (32)	399 (24)	192 (31)	249 (35)	478 (37)	293 (38)	81 (32)
Sepsis Response Team	840 (16)	106 (7)	75 (12)	119 (17)	288 (22)	188 (25)	64 (25)
Rapid Response Team with training in sepsis management	2300 (44)	313 (19)	196 (32)	310 (44)	753 (59)	519 (68)	209 (83)
None of the above	449 (9)	247 (15)	73 (12)	55 (8)	58 (5)	15 (2)	1 (<1%)

Our facility uses the following approaches to promote rapid antimicrobial delivery to patients with sepsis: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals	No. of Beds 0–25	No. of Beds 26–50	No. of Beds 51–100	No. of Beds 101–250	No. of Beds 251–500	No. of Beds >500
	5254 (100) n (%)	1629 (31) n (%)	615 (12) n (%)	705 (13) n (%)	1287 (24) n (%)	765 (15) n (%)	235 (5) n (%)
Stocking of common antimicrobials in locations outside the pharmacy	4118 (78)	1155 (71)	461 (75)	554 (79)	1066 (83)	650 (85)	232 (92)
Immediate processing of new antimicrobial orders in patients with sepsis	3341 (64)	901 (55)	372 (60)	459 (65)	866 (67)	560 (73)	183 (72)
Orders that default to ordering immediate administration of new antimicrobials	2214 (42)	504 (31)	230 (37)	274 (39)	631 (49)	422 (55)	153 (60)
Pharmacists on-site in key locations outside the pharmacy	2239 (43)	335 (21)	183 (30)	250 (35)	674 (52)	572 (75)	225 (89)
None of the above	462 (9)	240 (15)	80 (13)	59 (8)	68 (5)	14 (2)	1 (<1%)

Our facility uses the following approaches to facilitate recovery after sepsis hospitalization: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Communicating a patient’s sepsis diagnosis and care plan to the patient’s primary care physician	3038 (58)	880 (54)	366 (60)	420 (60)	770 (60)	461 (60)	141 (56)
Providing contact information for a clinical staff at the hospital to addresses post-discharge questions and/or troubleshoot post-discharge issues	2021 (38)	624 (38)	237 (39)	253 (36)	505 (39)	296 (39)	106 (42)
Contacting patients within 2 days of discharge by clinical staff to follow-up on discharge instructions, symptoms, and/or issues	1585 (30)	589 (36)	186 (30)	205 (29)	343 (27)	206 (27)	56 (22)
Screening patients for new functional and/or cognitive impairment after sepsis and referring patients to relevant evaluation or support services	1677 (32)	454 (28)	192 (31)	214 (30)	443 (34)	277 (36)	97 (38)
Reconciling and optimizing medications prior to hospital discharge	4157 (79)	1173 (72)	463 (75)	563 (80)	1081 (84)	650 (85)	227 (90)
Screening patients for social vulnerability and referring to available support services as needed	3495 (67)	936 (57)	409 (67)	479 (68)	943 (73)	528 (69)	200 (79)
None of the above	598 (11)	260 (16)	90 (15)	84 (12)	104 (8)	47 (6)	13 (5)

Our facility uses the following approaches to ensure that all patients hospitalized with sepsis (or their family or caregivers), are educated on their diagnosis of sepsis, the underlying infection, and signs and symptoms of new infection or sepsis. (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Direct 1:1 education on sepsis from a healthcare personnel	3124 (59)	952 (58)	350 (57)	398 (56)	814 (63)	460 (60)	150 (59)
Written educational material about sepsis	3695 (70)	1116 (69)	412 (67)	495 (70)	924 (72)	571 (75)	177 (70)
Pre-recorded video material about sepsis	244 (5)	31 (2)	16 (3)	38 (5)	81 (6)	59 (8)	19 (8)
None of the above are used routinely	1008 (19)	347 (21)	136 (22)	141 (20)	216 (17)	125 (16)	43 (17)

Our facility tracks the following hospital sepsis metrics. (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Hospital sepsis epidemiology (e.g., number and characteristics of sepsis hospitalizations)	2637 (50)	612 (38)	299 (49)	363 (51)	720 (56)	461 (60)	182 (72)
Hospital sepsis treatment (e.g., time-to-antibiotics, type, and volume of fluid delivery)	4018 (76)	993 (61)	452 (73)	567 (80)	1095 (85)	683 (89)	228 (90)
Hospital sepsis outcomes (e.g., mortality, length of hospitalization)	3799 (72)	842 (52)	402 (65)	540 (77)	1085 (84)	685 (90)	245 (97)
Progress towards achieving hospital goals for sepsis treatment and/or outcomes	3486 (66)	721 (44)	370 (60)	517 (73)	1020 (79)	635 (83)	223 (88)

Table continued on next page

Survey Questions and Responses	All Hospitals	No. of Beds 0–25	No. of Beds 26–50	No. of Beds 51–100	No. of Beds 101–250	No. of Beds 251–500	No. of Beds >500
	5254 (100) n (%)	1629 (31) n (%)	615 (12) n (%)	705 (13) n (%)	1287 (24) n (%)	765 (15) n (%)	235 (5) n (%)
Use of hospital sepsis tools (e.g., how often sepsis order-set is used)	3198 (61)	698 (43)	333 (54)	444 (63)	923 (72)	582 (76)	218 (86)
Usability or acceptability of hospital sepsis tools (e.g., clinician acceptance)	2371 (45)	503 (31)	256 (42)	335 (48)	696 (54)	422 (55)	159 (63)
Impact of hospital sepsis tools (e.g., impact on sepsis alert or order-set on treatment or outcomes)	2373 (45)	435 (27)	242 (39)	335 (48)	736 (57)	450 (59)	175 (69)
None of the above	704 (13)	406 (25)	107 (17)	76 (11)	84 (7)	28 (4)	3 (1)

Describe your facility’s use of manual chart review for sepsis performance evaluation and improvement.†

Survey Questions and Responses	All Hospitals	No. of Beds 0–25	No. of Beds 26–50	No. of Beds 51–100	No. of Beds 101–250	No. of Beds 251–500	No. of Beds >500
	5254 (100) n (%)	1629 (31) n (%)	615 (12) n (%)	705 (13) n (%)	1287 (24) n (%)	765 (15) n (%)	235 (5) n (%)
We review all sepsis hospitalizations	2113 (40)	788 (48)	297 (48)	300 (43)	472 (37)	215 (28)	41 (16)
We review all sepsis hospitalizations with adverse outcomes (e.g., all hospitalizations with in-hospital mortality)	778 (15)	180 (11)	77 (13)	109 (15)	215 (17)	147 (19)	50 (20)
We review a sample of sepsis hospitalizations (e.g., a random sample)	1651 (31)	264 (16)	149 (24)	221 (31)	502 (39)	363 (47)	152 (60)
We do not complete routine chart reviews of sepsis hospitalizations	712 (14)	397 (24)	92 (15)	75 (11)	98 (8)	40 (5)	10 (4)

Sepsis treatment and/or outcome data are reported to unit-based or service-based leadership at following frequency:†

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Continuously (e.g., a sepsis dashboard that updates in real-time)	692 (13)	136 (8)	76 (12)	86 (12)	189 (15)	149 (19)	56 (22)
At least monthly	2274 (43)	492 (30)	235 (38)	336 (48)	662 (51)	423 (55)	126 (50)
At least quarterly	1195 (23)	413 (25)	166 (27)	183 (26)	274 (21)	119 (16)	40 (16)
At least annually	202 (4)	94 (6)	24 (4)	11 (2)	43 (3)	16 (2)	14 (6)
Not reported or reported less often than annually	891 (17)	494 (30)	114 (19)	89 (13)	119 (9)	58 (8)	17 (7)

If (the above question) has one of the following answers selected: “continuously,” “at least monthly,” “at least quarterly,” or “at least annually”] Feedback data provided to clinician and/or unit-based leadership on sepsis treatment and outcomes includes the following elements at least annually. (Check all that apply)^{§##}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Unit-specific or service-specific data	3084 (71)	766 (67)	350 (70)	436 (71)	848 (73)	516 (73)	168 (71)
Clinician-specific data	2271 (52)	471 (41)	260 (52)	351 (57)	659 (56)	407 (58)	123 (52)
Benchmarking or comparative data (i.e., comparison to other similar units or hospitals)	2847 (65)	561 (49)	303 (60)	433 (70)	846 (72)	532 (75)	172 (73)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Temporal trends (i.e., how treatment or outcomes have changed overtime)	1898 (44)	295 (26)	192 (38)	277 (45)	587 (50)	393 (56)	154 (65)
None of the above	168 (4)	73 (6)	21 (4)	16 (3)	32 (3)	18 (3)	8 (3)

Clinicians receive feedback regarding their care of specific patients with sepsis: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Yes, positive feedback is provided for good sepsis care	2923 (56)	689 (42)	327 (53)	412 (58)	817 (63)	519 (68)	159 (63)
Yes, constructive feedback is provided for areas of improvement	3844 (73)	943 (58)	442 (72)	543 (77)	1066 (83)	647 (85)	203 (80)
Neither of the above	1257 (24)	630 (39)	156 (25)	136 (19)	191 (15)	100 (13)	44 (17)

Our facility provides education on sepsis to the following groups as part of their hiring or onboarding process: (check all that apply)^{†§}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
APPs	2129 (41)	450 (28)	205 (33)	323 (46)	610 (47)	386 (50)	155 (61)
Certified nursing assistants	1154 (22)	262 (16)	133 (22)	148 (21)	338 (26)	194 (25)	79 (31)

Table continued on next page

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
Nurses	4005 (76)	1016 (62)	435 (71)	554 (79)	1100 (85)	673 (88)	227 (90)
Patient care technicians	1179 (22)	215 (13)	128 (21)	159 (23)	362 (28)	227 (30)	88 (35)
Physicians	2950 (56)	723 (44)	303 (49)	424 (60)	818 (64)	513 (67)	169 (67)
Trainees (for example, medical students, residents, nursing students)	1620 (31)	248 (15)	132 (21)	205 (29)	518 (40)	363 (47)	154 (61)
None of the above	1050 (20)	569 (35)	154 (25)	117 (17)	138 (11)	59 (8)	13 (5)

Our facility provides sepsis education to the following groups at least annually, for example through lectures, staff meetings, etc.: (check all that apply)^{†‡}

Survey Questions and Responses	All Hospitals 5254 (100) n (%)	No. of Beds 0–25 1629 (31) n (%)	No. of Beds 26–50 615 (12) n (%)	No. of Beds 51–100 705 (13) n (%)	No. of Beds 101–250 1287 (24) n (%)	No. of Beds 251–500 765 (15) n (%)	No. of Beds >500 235 (5) n (%)
APPs	2034 (39)	438 (27)	198 (32)	290 (41)	596 (46)	364 (48)	148 (58)
Certified nursing assistants	1190 (23)	308 (19)	131 (21)	155 (22)	337 (26)	190 (25)	69 (27)
Nurses	3901 (74)	1072 (66)	436 (71)	522 (74)	1037 (81)	632 (83)	202 (80)
Patient care technicians	1204 (23)	252 (15)	136 (22)	171 (24)	348 (27)	213 (28)	84 (33)
Physicians	2900 (55)	709 (44)	313 (51)	392 (56)	827 (64)	490 (64)	169 (67)
None of the above	1162 (22)	512 (31)	150 (24)	155 (22)	203 (16)	105 (14)	37 (15)

* Data based on dataset frozen on June 1, 2024

† Required survey question completed by all hospitals that submitted a 2023 Annual Hospital Survey. “Yes” responses shown.

‡ A conditionally required survey sub-question is triggered by the facility’s distinct response to a required parent question in the survey.

- § Hospitals may select more than one response per question.
- ¶ Denominator for sub-questions: All facilities which responded to parent question “Our facility has one leader or two co-leaders responsible for sepsis program or committee management and outcomes”=“Y”
- # Denominator for sub-questions: All facilities which responded to parent question “Our facility has one leader or two co-leaders responsible for sepsis program or committee management and outcomes”=“Y” and to question “What is the professional background of the sepsis program or committee leaders(s)” option “Advanced practice provider (APP)” =“Y”
- ** Denominator for sub-questions 60d: All facilities which responded to parent question “Our facility has one leader or two co-leaders responsible for sepsis program or committee management and outcomes”=“Y” and to question “What is the professional background of the sepsis program or committee leaders(s)” option “Nurse” =“Y”
- †† Denominator for sub-questions 60e: All facilities which responded to parent question “Our facility has one leader or two co-leaders responsible for sepsis program or committee management and outcomes”=“Y” and to question “What is the professional background of the sepsis program or committee leaders(s)” option “Physician” =“Y”
- ‡‡ Denominator for sub-questions: All facilities which responded to parent question “Sepsis treatment and/or outcome data are reported to unit-based or service-based leadership at following frequency” option “continuously” =“Y” or “at least monthly” =“Y” or “at least quarterly”=“Y,” or “at least annually”=“Y”

For more information, please contact:

Centers for Disease Control and Prevention

Phone: 1-800-CDC-INFO (232-4636)

Web Form: www.cdc.gov/info

Web: <https://www.cdc.gov/sepsis/core-elements.html>

Publication Date: August 2024