

敗血症は

common disease である

WORLD SEPSIS DAY INFOGRAPHICS



A GLOBAL HEALTH CRISIS

Sepsis; How big is the problem?



27 000 000 - 30 000 000 people
per year develop sepsis



7 000 000 - 9 000 000 die
- 1 death every 3.5 seconds



Survivors may face
lifelong consequences

CDC website



Each year, at least **1.7** million adults in America develop sepsis.

Nearly **270,000** Americans die as a result of sepsis each year.

1 in **3**

One in three patients who die in a hospital have sepsis.

Epidemiology of severe sepsis in the United States: Analysis of incidence, outcome, and associated costs of care

Derek C. Angus, MD, MPH, FCCM; Walter T. Linde-Zwirble; Jeffrey Lidicker, MA; Gilles Clermont, MD; Joseph Carcillo, MD; Michael R. Pinsky, MD, FCCM

3/1,000 population

Objective: To determine the incidence, cost, and outcome of severe sepsis in the United States.

Design: Observational cohort study.

Setting: All nonfederal hospitals (n = 847) in seven U.S. states.

Patients: All patients (n = 192,980) meeting criteria for severe sepsis based on the International Classification of Diseases, Ninth Revision, Clinical Modification.

Interventions: None.

Measurements and Main Results: We linked all 1995 state hospital discharge records (n = 6,621,559) from seven large states with population and hospital data from the U.S. Census, the Centers for Disease Control, the Health Care Financing Administration, and the American Hospital Association. We defined severe sepsis as documented infection and acute organ dysfunction using criteria based on the International Classification of Diseases, Ninth Revision, Clinical Modification. We validated these criteria against prospective clinical and physiologic criteria in a subset of five hospitals. We generated national age- and gender-

and an additional 130,000 (17.3%) were ventilated in an intermediate care unit or cared for in a coronary care unit. Incidence increased >100-fold with age (0.2/1,000 in children to 26.2/1,000 in those >85 yrs old). Mortality was 28.6%, or 215,000 deaths nationally, and also increased with age, from 10% in children to 38.4% in those >85 yrs old. Women had lower age-specific incidence and mortality, but the difference in mortality was explained by differences in underlying disease and the site of infection. The average costs per case were \$22,100, with annual total costs of \$16.7 billion nationally. Costs were higher in infants, nonsurvivors, intensive care unit patients, surgical patients, and patients with more organ failure. The incidence was projected to increase by 1.5% per annum.

Conclusions: Severe sepsis is a common, expensive, and frequently fatal condition, with as many deaths annually as those from acute myocardial infarction. It is especially common in the elderly and is likely to increase substantially as the U.S. population ages. (Crit Care Med 2001; 29:1303–1310)

adjusted estimates of incidence, cost, and outcome. We identified 192,980 cases, yielding national estimates of 751,000 cases (3.0 cases per 1,000 population and 2.26 cases per 100 hospital

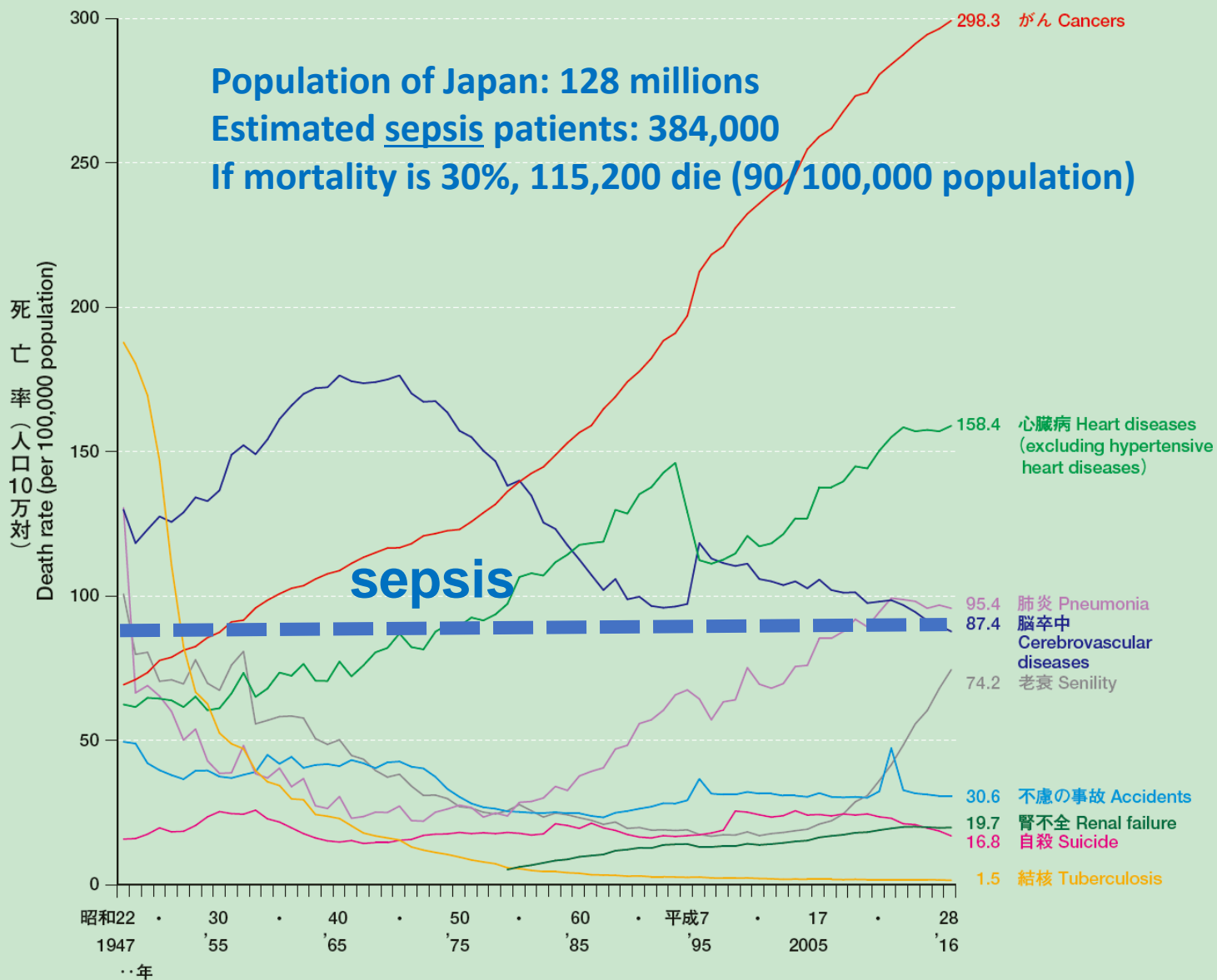
主な死因別にみた死亡率の年次推移—昭和22～平成28年—

Trends in death rates for leading causes of death, 1947-2016



動態

an



敗血症は
ときに診断が難しい

敗血症ってどんな病気？

[Q1. 敗血症とは何ですか？](#)

[Q2. どのようなときに](#)

[敗血症に罹患するのですか？](#)

[Q3. 敗血症の原因は？](#)

[Q4. 敗血症の症状は？](#)

[Q5. 改善しないまたは悪化するような](#)

[感染にかかったと思ったら、](#)

[どうしたらいいのですか？](#)

[Q6. 敗血症はどのように](#)

[診断されるのですか？](#)

[Q7. 敗血症はどのように治療する？](#)

[Q8. 敗血症の予防は？](#)

どんな人が敗血症にかかりやすい？

Q4. 敗血症の症状は？

敗血症では何か一つの症状や兆候が出るというようなことはなく、発症とに様々な症状が組み合わさって出現します。敗血症というのは感染症の結して起こることなので、嘔吐下痢や咽頭痛などの普段よくみる感染症症状うかもしれませんし、以下にあげるように様々な症状を呈します。

- 悪寒とふるえ、発熱
- 身体の疼痛や不快感
- 冷たく湿潤した皮膚
- 意識低下（混乱や見当識障害）
- 息切れ、頻呼吸
- 頻脈

Q5. 改善しないまたは悪化するような

[感染にかかったと思ったら、](#)

[どうしたらいいのですか？](#)

もし感染や敗血症の症状が検ば、十分に医療機関を相談していただくか、敗

とは言っても
早期治療が鍵

Time to Treatment and Mortality during Mandated Emergency Care for Sepsis

Christopher W. Seymour, M.D., Foster Gesten, M.D., Hallie C. Prescott, M.D., Marcus E. Friedrich, M.D., Theodore J. Iwashyna, M.D., Ph.D., Gary S. Phillips, M.A.S., Stanley Lemeshow, Ph.D., Tiffany Osborn, M.D., M.P.H., Kathleen M. Terry, Ph.D., and Mitchell M. Levy, M.D.

ABSTRACT

BACKGROUND

In 2013, New York began requiring hospitals to follow protocols for the early identification and treatment of sepsis. However, there is controversy about whether more rapid treatment of sepsis improves outcomes in patients.

METHODS

We studied data from patients with sepsis and septic shock that were reported to the New York State Department of Health from April 1, 2014, to June 30, 2016. Patients had a sepsis protocol initiated within 6 hours after arrival in the emergency department and had all items in a 3-hour bundle of care for patients with sepsis (i.e., blood cultures, broad-spectrum antibiotic agents, and lactate measurement) completed within 12 hours. Multilevel models were used to assess the associations between the time until completion of the 3-hour bundle and risk-adjusted mortality. We also examined the times to the administration of antibiotics and to the completion of an initial bolus of intravenous fluid.

RESULTS

Among 49,331 patients at 149 hospitals, 40,696 (82.5%) had the 3-hour bundle completed within 3 hours. The median time to completion of the 3-hour bundle was 1.30 hours (interquartile range, 0.65 to 2.35), the median time to the administration of antibiotics was 0.95 hours (interquartile range, 0.35 to 1.95), and the median time to completion of the fluid bolus was 2.56 hours (interquartile range, 1.33 to 4.20). Among patients who had the 3-hour bundle completed within 12 hours, a longer time to the completion of the bundle was associated with higher risk-adjusted in-hospital mortality (odds ratio, 1.04 per hour; 95% confidence interval [CI], 1.02 to 1.05; $P < 0.001$), as was a longer time to the administration of antibiotics (odds ratio, 1.04 per hour; 95% CI, 1.03 to 1.06; $P < 0.001$) but not a longer time to the completion of a bolus of intravenous fluids (odds ratio, 1.01 per hour; 95% CI, 0.99 to 1.02; $P = 0.21$).

CONCLUSIONS

More rapid completion of a 3-hour bundle of sepsis care and rapid administration of antibiotics, but not rapid completion of an initial bolus of intravenous fluids, were associated with lower risk-adjusted in-hospital mortality. (Funded by the National Institutes of Health and others.)

From the Departments of Critical Care Medicine and Emergency Medicine, University of Pittsburgh School of Medicine, and the Clinical Research, Investigation, and Systems Modeling of Acute Illness (CRISMA) Center — both in Pittsburgh (C.W.S.); the New York State Department of Health, Albany (F.G., M.E.F.), and IPRO, Lake Success (G.S.P., K.M.T.) — both in New York; the University of Michigan and the Veterans Affairs Center for Clinical Management Research — both in Ann Arbor (H.C.P., T.J.I.); the Division of Biostatistics, Ohio State University College of Public Health, Columbus (S.L.); Washington University, St. Louis (T.O.); and the Warren Alpert Medical School at Brown University, Providence, RI (M.M.L.). Address reprint requests to Dr. Seymour at the Departments of Critical Care Medicine and Emergency Medicine, University of Pittsburgh School of Medicine, 3550 Terrace St., Scaife Hall, Rm. 639, Pittsburgh, PA 15261, or at seymourcw@upmc.edu.

This article was published on May 21, 2017, at NEJM.org.

N Engl J Med 2017;376:2235-44.

DOI: 10.1056/NEJMoa1703058

Copyright © 2017 Massachusetts Medical Society.

Time to Treatment and Mortality during Mandated Emergency Care for Sepsis

Christopher W. Seymour, M.D., Foster Gesten, M.D., Hallie C. Prescott, M.D., Marcus E. Friedrich, M.D., Theodore J. Iwashyna, M.D., Ph.D., Gary S. Phillips, M.A.S., Stanley Lemeshow, Ph.D., Tiffany Osborn, M.D., M.P.H., Kathleen M. Terry, Ph.D., and Mitchell M. Levy, M.D.

ABSTRACT

BACKGROUND

In 2013, New York began requiring hospitals to follow protocols for the early identification and treatment of sepsis. However, there is controversy about whether more rapid treatment of sepsis improves outcomes in patients.

METHODS

We studied data from patients with sepsis and septic shock that were reported to the New York State Department of Health from April 1, 2014, to June 30, 2016. Patients had a sepsis protocol initiated within 6 hours after arrival in the emergency department and had all items in a 3-hour bundle of care for patients with sepsis (i.e., blood cultures, broad-spectrum antibiotic agents, and lactate measurement) completed within 12 hours. Multilevel models were used to assess the associations between the time until completion of the 3-hour bundle and risk-adjusted mortality. We also examined the times to the administration of antibiotics and to the completion of an initial bolus of intravenous fluid.

RESULTS

Among 49,331 patients at 149 hospitals, 40,696 (82.5%) had the 3-hour bundle completed within 3 hours. The median time to completion of the 3-hour bundle was 1.30 hours (interquartile range, 0.65 to 2.35), the median time to the administration of antibiotics was 0.95 hours (interquartile range, 0.35 to 1.95), and the median time to completion of the fluid bolus was 2.56 hours (interquartile range, 1.33 to 4.20). Among patients who had the 3-hour bundle completed within 12 hours, a longer time to the completion of the bundle was associated with higher risk-adjusted in-hospital mortality (odds ratio [OR], 1.02 to 1.05; $P < 0.001$), as was antibiotics (odds ratio, 1.04 per hour; 95% CI, 1.02 to 1.06; $P < 0.001$) and longer time to the completion of a bolus of intravenous fluid (odds ratio, 1.01 per hour; 95% CI, 0.99 to 1.02; $P = 0.21$).

CONCLUSIONS

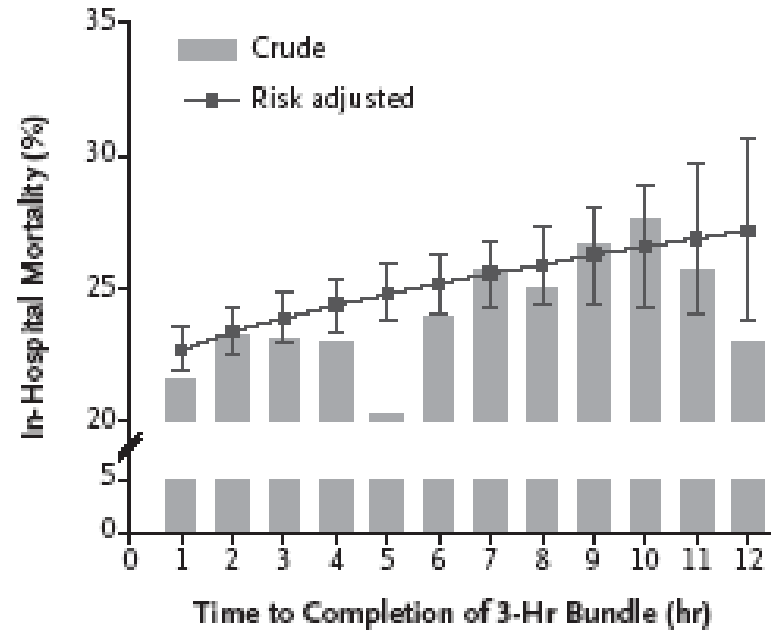
More rapid completion of a 3-hour bundle of care for patients with sepsis was associated with lower risk-adjusted in-hospital mortality. However, more rapid completion of antibiotics, but not rapid completion of intravenous fluid, were associated with lower risk-adjusted in-hospital mortality. (Funded by the National Institutes of Health and others.)

From the Department of Medicine and Emergency Medicine, University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center (UPMC), University of Pittsburgh Graduate School of Public Health, and the Clinical Research and Systems Modeling (CRISM) Center — (C.W.S.); the New York State Department of Health, Albany (F.G.); the New York State Department of Health, Albany (H.C.P.); the Department of Biostatistics, Ohio State University (M.E.F.); the Department of Public Health, University of Washington (T.J.I.); the Department of Public Health, University of Washington (G.S.P.); the Department of Public Health, University of Washington (S.L.); Washington University in St. Louis (T.O.); and the Warren Alpert Medical School at Brown University (M.M.L.). Address correspondence and reprint requests to Dr. Seymour at the Department of Critical Care Medicine, University of Pittsburgh Medical Center, 3550 Tower Road, 639, Pittsburgh, PA 15261 (seymourcw@upmc.edu).

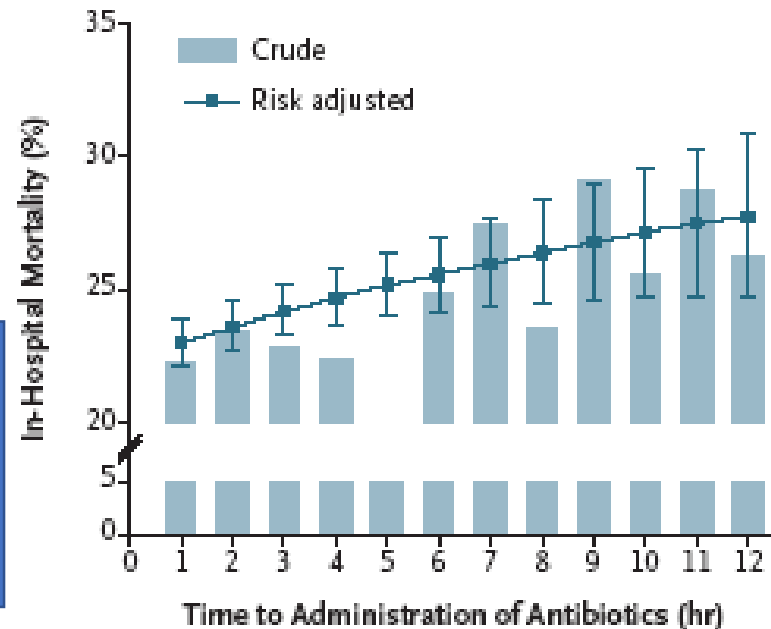
This article was published online first on July 11, 2017, at NEJM.org.

N Engl J Med 2017;376:1196-1204.

A 3-Hr Bundle



B Administration of Antibiotics



治療が遅れると死亡率上昇

しかし、受診時の死亡率が0%でないこと注意

市民とともに行動



NEWS

[see all news](#)



Aug 22, 2019

World Sepsis Day Advocacy in the Heart of Downtown Vancouver, Canada



Aug 20, 2019

Tom's Sepsis Story - A Sepsis Survivor, Twenty Years On



Aug 15, 2019

The WSD Photo Challenge - A Quick and Easy Way to Raise Awareness for Sepsis and World Sepsis Day



Aug 14, 2019

TED Talk: Partnering to Beat Sepsis by Melanie Wright



Improving the prevention, diagnosis and clinical management of sepsis

The Seventieth World Health Assembly,

Having considered the report on improving the prevention, diagnosis and clinical management of sepsis;¹

Concerned that sepsis continues to cause approximately six million deaths worldwide every year, most of which are preventable;

Recognizing that sepsis as a syndromic response to infection is the final common pathway to death from most infectious diseases worldwide;

Considering that sepsis follows a unique and time-critical clinical course, which in the early stages is highly amenable to treatment through early diagnosis and timely and appropriate clinical management;

Considering also that infections which may lead to sepsis can often be prevented through appropriate hand hygiene, access to vaccination programmes, improved sanitation and water quality and availability, and other infection prevention and control best practices; and that forms of septicaemia associated with nosocomial infections are severe, hard to control and have high fatality rates;



Home / About WHO / G



< Governance

World Health Asse

Executive Board

Recognizing Sepsis as a Global Health Priority — A WHO Resolution

Konrad Reinhart, M.D., Ron Daniels, M.D., Niranjana Kissoon, M.D., Flavia R. Machado, M.D., Ph.D.,
Raymond D. Schachter, L.L.B., and Simon Finfer, M.D.

N ENGL J MED 377;5 NEJM.ORG AUGUST 3, 2017

“Some very important clinical issues, some of them affecting life and death, stay largely in a backwater which is inhabited by academics and professionals and enthusiasts, dealt with very well at the clinical and scientific level but not visible to the public, political leaders, leaders of health-care systems. . . . The public and political space is the space in which [sepsis] needs to be in order for things to change.”

the world have died prematurely or faced long-term disability. This toll of unnecessary suffering drove Germany, with the unanimous support of the WHO executive board and at the urging of the Global Sepsis Alliance (GSA), to propose the resolution adopted by the WHA. The resolution urges member states and the WHO director general to take specific actions to reduce the burden of sepsis through improved preven-

code” in the Global Burden of Disease statistics, where most deaths due to sepsis are classified as being caused by the underlying infection. Improving the coding of sepsis and establishing a proper accounting in those statistics are essential steps envisaged by the WHA.

The resolution also calls for health care workers to increase awareness of sepsis by using the term “sepsis” in communication



は い け つ し ょ う
敗血症.com

敗血症情報サイト

敗血症とは

敗血症対策

敗血症Q&A

世界敗血症デー

ご意見・ご質問

医療関係者の
皆様へ

**9月13日は
世界敗血症デー**

敗血症セミナー in 東京2019 開催のご案内

セミナー概要

開催目的

東京オリンピック・パラリンピック2020を目前に海外との交流は増々盛んになっています。それに伴い、日本国内では流行・経験のない感染症や多剤耐性菌の国内への持ち込みが増加することが懸念されています。今回の敗血症セミナー in 東京2019では、「輸入感染症と敗血症」をテーマに国内外の感染症の動向や対策などの講演を企画します。輸入感染症に対する知識を得て、予防から重症化した場合の対応について習得することを目標とします。

日時：	2019年9月7日（土）13:00～17:00
場所：	東京大学 伊藤謝恩ホール（〒113-0033 東京都文京区本郷7-3-1） アクセス（伊藤国際学術研究センター内）： https://www.u-tokyo.ac.jp/adm/iirc/ja/access.html
対象・募集人数：	感染症治療・救急治療・集中治療における医療従事者 300人
受講料：	5,000円