

Hospital Deaths in Patients With Sepsis From 2 Independent Cohorts

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Sepsis, the inflammatory response to infection, affects millions of patients worldwide. However, its effect on overall hospital mortality has not been measured. We quantified the contribution of sepsis to mortality in 2 complementary inpatient cohorts from Kaiser Permanente Northern California (KPNC) and the Healthcare Cost and Utilization Project Nationwide Inpatient Sample (NIS).

RESULTS

Table 1. Inpatients With Sepsis Diagnoses in the Kaiser Permanente Northern California Cohort and the Healthcare Cost and Utilization Project Nationwide Inpatient Sample^a

	Inpatients With Sepsis Diagnoses ^b					
	Kaiser Permanente Northern California (2010-2012) (n = 21 Hospitals) (14 206 Deaths/482 828 Admissions)				Nationwide Inpatient Sample (2010) (n = 1051 Hospitals) (143 312 Deaths/6 555 621 Admissions)	
	Explicit	Explicit POA ^c	Implicit	Implicit POA ^c	Explicit	Implicit
Hospitalizations	55 008 (11.4) [11.3-11.5]	50 520 (10.5) [10.4-10.5]	80 678 (16.7) [16.6-16.8]	73 933 (15.3) [15.2-15.4]	280 663 (4.3) [4.3-4.3]	717 718 (10.9) [10.9-11.0]
Hospital mortality	6272 (11.4) [11.1-11.7]	5238 (10.4) [10.1-10.6]	7941 (9.8) [9.6-10.0]	7391 (10.0) [9.8-10.2]	49 664 (17.7) [17.6-17.8]	74 451 (10.4) [10.3-10.4]
% (95% CI) of all hospital deaths among patients with sepsis	44.2 (43.3-45.0)	36.9 (36.1-37.7)	55.9 (55.1-56.7)	52.0 (51.2-52.8)	34.7 (34.4-34.9)	52.0 (51.7-52.2)

Abbreviation: POA, present on admission.

^bValues expressed as No. (%) [95% CI] unless otherwise indicated.

^a Case definitions are based on explicit sepsis diagnosis codes or the addition of cases identified using the Angus implementation⁵ of the International Consensus Conference Definition of Severe Sepsis (implicit).

^c Indicates diagnoses were POA.

Of 14,206 KPNC inpatient deaths ... patients with sepsis, normal blood pressure, and measured lactate levels of less than 4 mmol/L (n = 15 095) comprised 55.9% (95% CI, 53.6%-58.1%; implicit) of sepsis deaths.

Of 143,312 NIS deaths, 52.0% (95% CI, 51.7%-52.2%; implicit) occurred among patients with sepsis.

Note: lactate GREATER than 4 mmol/L is required for suspected sepsis

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