

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Selected best practices and suggestions for improvement for clinicians

Hospital-Acquired Complication **3**

HEALTHCARE-ASSOCIATED INFECTIONS

HOSPITAL-ACQUIRED COMPLICATION	RATE ^a
1 Pressure injury	10
2 Falls resulting in fracture or intracranial injury	4
3 Healthcare-associated infections	135
4 Surgical complications requiring unplanned return to theatre	20
5 Unplanned intensive care unit admission	na ^b
6 Respiratory complications	24
7 Venous thromboembolism	8
8 Renal Failure	2
9 Gastrointestinal bleeding	14
10 Medication complications	30
11 Delirium	51
12 Persistent incontinence	8
13 Malnutrition	12
14 Cardiac complications	69
15 Third and fourth degree perineal laceration during delivery (per 10,000 vaginal births)	358
16 Neonatal birth trauma (per 10,000 births)	49

a per 10,000 hospitalisations except where indicated
b na = national data not available

This hospital-acquired complication (HAC) includes the diagnoses of*:

- Urinary tract infection
- Surgical site infection
- Pneumonia
- Bloodstream infection
- Multi-resistant organism
- Central line and peripheral line associated bloodstream infection
- Infection associated with prosthetics/implantable devices
- Gastrointestinal infection.



Hospital-acquired infections are one of the most common complications affecting hospital patients, and greatly increase morbidity and mortality, as well as the risk of readmission within 12 months.



Hospital-acquired infections increase the length of stay and the cost of admission[§]

Why focus on hospital-acquired infections?

Urinary tract infection (UTI) refers to an infection affecting the bladder, urethra, ureters or kidneys.



Around 20,500 hospital-acquired UTIs occur each year in Australian hospitals[#]

112.1

Highest rate of this HAC at Principal Referral Hospitals[†]



47.1

Aggregate rate of this HAC at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate of this HAC to less than 47.1 per 10,000 hospitalisations, it would prevent at least 2,757 UTIs



All facilities should be working to reduce their rates of UTIs.

Surgical site infection refers to an infection that occurs in the region of the body where prior surgery has been performed. It may or may not be associated with an indwelling device, such as a surgical drain.



Around 5,600 hospital-acquired surgical site infections occur each year in Australian hospitals#

32.9

Highest rate at Principal Referral Hospitals†



13.9

Aggregate rate at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate to less than 13.9 per 10,000 hospitalisations, it would prevent at least **786 surgical site infections**



All facilities should be working to reduce their rates of surgical site infections.

Pneumonia refers to an infection of the lungs.



Around 17,900 hospital-acquired episodes of pneumonia occur each year in Australian hospitals#

167.4

Highest rate at Principal Referral Hospitals†



46.6

Aggregate rate at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate to less than 46.6 per 10,000 hospitalisations, it would prevent at least **2,830 episodes of pneumonia**



All facilities should be working to reduce their rates of pneumonia.

Blood stream infection refers to the presence of live pathogens in the blood, causing an infection.



Around 15,200 hospital-acquired blood stream infections occur each year in Australian hospitals[#]

270.4 Highest rate at Principal Referral Hospitals[†]

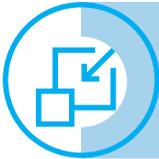


39.5 Aggregate rate at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate to less than 39.5 per 10,000 hospitalisations, it would prevent at least **2,757 blood stream infections**



All facilities should be working to reduce their rates of blood stream infections.

Central line and peripheral line associated blood stream infection (CLABSI) is a blood stream infection caused by introduction of pathogens into the blood stream via a central or peripheral line.



Around 4,400 hospital-acquired central line and peripheral line associated blood stream infections occur each year in Australian hospitals[#]

33.3 Highest rate at Principal Referral Hospitals[†]



11.9 Aggregate rate at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate to less than 11.9 per 10,000 hospitalisations, it would prevent at least **804 CLABSIs**



All facilities should be working to reduce their rates of CLABSIs.

Multi-resistant organism (MRO) refers to bacteria that are resistant to one or more classes of antimicrobial agents and usually are resistant to all but one or two commercially available antimicrobial agents.



Around 3,800 hospital-acquired MROs occur each year in Australian hospitals#



If all hospitals reduced their rate to less than 8.9 per 10,000 hospitalisations, it would prevent at least **791 MROs**



All facilities should be working to reduce their rates of MROs.

Infections associated with prosthetics and implantable devices refer to infections that are complications related to the insertion and care of medical devices, such as shunts, cochlear implants, pacemakers, insulin pumps.



Around 6,800 hospital-acquired infections occur each year in Australian hospitals#



If all hospitals reduced their rate to less than 18.1 per 10,000 hospitalisations, it would prevent at least **1,126 infections associated with prosthetics and implantable devices**



All facilities should be working to reduce their rates of infections associated with prosthetics and implantable devices.

Gastrointestinal infections refers to infections of the gastrointestinal tract that may be acquired in hospital, especially Clostridium difficile, rotavirus, norovirus.



Around 2,900 hospital-acquired gastrointestinal infections occur each year in Australian hospitals[#]

19.9

Highest rate at Principal Referral Hospitals[†]



6.9

Aggregate rate at Principal Referral Hospitals

Per 10,000 hospitalisations



If all hospitals reduced their rate to less than 6.9 per 10,000 hospitalisations, it would prevent at least **540 gastrointestinal infections**



All facilities should be working to reduce their rates of gastrointestinal infections.

* The specifications for the hospital-acquired complications list providing the codes, inclusions and exclusions required to calculate rates is available on the Commission's website: www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications/

§ Independent Hospital Pricing Authority (AU): Pricing and funding for safety and quality: risk adjustment model for hospital-acquired complications, version 3, 2018.

The data used in this sheet are for hospital-acquired complications in Australian public hospitals in 2015–16. Sourced from: Independent Hospital Pricing Authority (AU). Activity Based Funding Admitted Patient Care 2015–16.

† Hospitals were classified in the Principal Referral Hospitals peer group for these purposes according to the Australian Institute of Health and Welfare's former definition of major city hospitals with more than 20,000 acute weighted separations and regional hospitals with more than 16,000 acute weighted separations.



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