

# Antimicrobial stewardship: 9a-Surgical antibiotic prophylaxis in accordance with guidelines

## Identifying and definitional attributes

<b>Metadata item type:</b>	Indicator
<b>Indicator type:</b>	Indicator
<b>Short name:</b>	Indicator 9a-Surgical antibiotic prophylaxis in accordance with guidelines
<b>METEOR identifier:</b>	612228
<b>Registration status:</b>	<ul style="list-style-type: none"><li>• <a href="#">Australian Commission on Safety and Quality in Health Care</a>, Retired 25/01/2022</li><li>• <a href="#">Health</a>, Standard 12/09/2016</li></ul>
<b>Description:</b>	Proportion of patients for whom surgical prophylactic antibiotics were prescribed in accordance with <i>Therapeutic guidelines: antibiotic</i> (Antibiotic Expert Group 2014) or locally-endorsed antibiotic prescribing guidelines.
<b>Rationale:</b>	Health services should regularly audit surgical prophylaxis practices to ensure that: <ul style="list-style-type: none"><li>• surgical patients should receive timely prophylaxis when indicated;</li><li>• correct antibiotics, route of administration and dosage are used;</li><li>• the duration of prophylaxis is appropriate.</li></ul>
<b>Indicator set:</b>	<a href="#">Clinical care standard indicators: antimicrobial stewardship</a> <a href="#">Australian Commission on Safety and Quality in Health Care</a> , Retired 25/01/2022 <a href="#">Health</a> , Standard 12/09/2016
<b>Outcome area:</b>	<a href="#">Surgical prophylaxis</a> <a href="#">Health</a> , Standard 12/09/2016

## Collection and usage attributes

<b>Computation description:</b>	<p>Prophylaxis is the use of antibiotics to prevent surgical site infection and, in some circumstances, bacteraemia.</p> <p>The numerator and denominator include patients undergoing surgery for which there are documented guidelines for the administration of prophylactic antibiotics, that is, the <i>Therapeutic guidelines: antibiotic</i> or locally-endorsed antibiotic prescribing guidelines.</p> <p>The numerator and denominator exclude patients undergoing surgery for which there are no documented guidelines for the administration of prophylactic antibiotics, that is, the <i>Therapeutic guidelines: antibiotic</i> or locally-endorsed antibiotic prescribing guidelines, or where prophylaxis is not indicated due to the patient's current antibiotic therapy.</p> <p>For the numerator, 'in accordance' with guidelines means that the choice of antimicrobial is in accordance with guidelines. Timing of dose is dealt with in <a href="#">Antimicrobial stewardship: 9b-Timely administration of prophylactic antibiotics prior to surgery</a>, and duration of antibiotic therapy is dealt with in <a href="#">Antimicrobial stewardship: 9c-Cessation of prophylactic antibiotics following surgery</a>.</p> <p>Presented as a percentage.</p>
<b>Computation:</b>	$(\text{Numerator} \div \text{denominator}) \times 100$
<b>Numerator:</b>	Number of admitted patients undergoing surgery who received prophylactic antibiotics in accordance with <i>Therapeutic guidelines: antibiotic</i> or locally-endorsed antibiotic prescribing guidelines.

**Denominator:** Number of admitted patients undergoing surgery for which there are documented guidelines for the administration of prophylactic antibiotics.

**Comments:** The *Therapeutic guidelines: antibiotic* provides guidance on administration of prophylactic antibiotics for the following types of surgery:

- abdominal surgery, including:
  - colorectal surgery, appendicectomy, and upper gastrointestinal tract or biliary surgery (including laparoscopic approaches)
  - endoscopic procedures
  - hernia repair
- burns, extensive skin loss
- cardiac surgery
- head, neck and thoracic surgery
- lower limb amputation
- neurosurgery
- obstetric and gynaecological surgery, including:
  - hysterectomy and termination of pregnancy
  - caesarean section
- orthopaedic surgery
- urological surgery, including:
  - prostatectomy
  - transrectal prostatic biopsy
- vascular surgery.

Services may select specific procedures to focus on as part of the audit process, based on their own mix of patients and priorities.

This indicator is based on surgical antibiotic prophylaxis indicators developed by the then Victorian Hospital Acquired Infection Surveillance System Coordinating Centre (VICNISS) (Department of Human Services 2007) (now the Healthcare Associated Infection Surveillance Coordinating Centre), and the Western Australian Safety and Quality Investment for Reform (SQulRe) Program (Department of Health WA 2009).

## Representational attributes

**Representation class:** Percentage  
**Data type:** Real  
**Unit of measure:** Service event  
**Format:** N[NN]

## Source and reference attributes

**Reference documents:** Antibiotic Expert Group 2014. *Therapeutic guidelines: antibiotic*. Version 15. Melbourne: Therapeutic Guidelines Limited.

Department of Health WA 2009. *SQulRe 2 CPI guide: Surgical site infection prevention*. Perth: DHWA.

Department of Human Services 2007. *Type 2 surveillance manual version 10*. Melbourne: Victorian Hospital Acquired Infection Surveillance System Coordinating Centre, DHS.