

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE



Aseptic Technique Risk Matrix

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The use of aseptic technique during invasive clinical procedures minimises the risk of introducing infectious agents into sterile areas of the body. Effective aseptic technique is vital in all areas where invasive devices are used and invasive procedures are performed, and for patients at greater risk of harm associated with healthcare interventions.

All clinicians who use aseptic technique in their practice need to have their competency assessed from time to time. If necessary, they should be retrained where practice is below accepted levels of performance. A risk matrix can be used to assist health service organisations prioritise competency assessments, and identify clinical areas and/or procedures of high risk.

The risk matrix provides a score for each of the following factors:

- The clinical context where aseptic technique is to occur and how frequently it occurs in that setting
- The treatment type or procedure and how frequently that treatment/procedure occurs
- The recency of assessment of the healthcare professional for competence in aseptic technique.

For two of these factors, clinical context and treatment type, frequency of occurrence is also a factor.

A risk rating is determined by adding the scores for each of the three risk factors. This information can assist in planning the organisation's response to improve aseptic technique in practice. The higher the risk rating, the greater the risk and need for action to be taken.

Additional information on how a risk management approach is applied for aseptic technique is available at: [NSQHS Standards microsite \(http://www.nationalstandards.safetyandquality.gov.au/\)](http://www.nationalstandards.safetyandquality.gov.au/)

Risk factors

The following examples are provided to assist with calculating aseptic technique risks.

1. Clinical context

- Controlled environment, for example theatres, interventional radiology, oncology units
- Semi controlled environment, for example medical wards
- Uncontrolled environment, for example emergency department

2. Treatment type

- Simple, non-invasive procedure, for example simple dressing
- Complex procedure, for example debridement of a wound

- Invasive procedure, for example insertion of a peripheral or central venous access device

3. Assessment of skills of clinical workforce

- Recent assessment, within 12 months
- Recently assessed, but working in a changed clinical context
- Last assessment between 1 and 3 years ago
- Last assessment unknown or greater than 3 years ago

4. Guide to determining frequency of use or occurrence

- Infrequent – less than monthly
- Occasional – several times/month
- Frequently – daily or several times/day

Risk calculator

Calculate the three scores for each of the three risk factors using the following risk matrix.

1. Clinical context			
Frequency	Controlled	Semi-controlled	Uncontrolled
Infrequent	1 = Low	4 = Low	6 = Medium
Occasional	4 = Low	6 = Medium	8 = High
Frequent	6 = Medium	8 = High	10 = Very high

2. Treatment type			
Frequency	Simple procedure	Complex procedure	Invasive procedure
Infrequent	1 = Low	4 = Low	6 = Medium
Occasional	4 = Low	6 = Medium	8 = High
Frequent	6 = Medium	8 = High	10 = Very high

3. Recency of assessment			
Recent (within the last 12 months)	Recent but changed clinical context	Assessed 1-3 years ago	Assessment unknown or >3 years ago
1 = Low	4 = Medium	4 = Medium	8 = High

Determine the risk score and allocate a risk rating to the score using the table below. This risk rating will assist the organisation to identify and prioritise its response within the organisation.

Risk score

Add the three risk scores to determine the total risk score.

Risk factors	Score
1. Clinical content	
2. Treatment type	
3. Recency of assessment	
Total risk score	

Overall risk rating

Use the total risk score to determine the overall risk rating.

Risk factors	Score
Low risk	3 - 9
Medium	10 - 16
High	17 - 24
Very high	25 - 28