



# Peripheral Intravenous Cannula (PIVC) Guideline

## 1. Guiding Principles

The purpose of this guideline is to outline the principles associated with insertion, care and management of a peripheral intravenous cannula (PIVC) throughout the WA Country Health Service (WACHS).

This guideline is aligned with the Australian Commission for Safety and Quality in Health Care (ACSQHC)'s [Management of Peripheral Intravenous Catheters Clinical Care Standard](#) and should be read in conjunction with the Clinical Care Standard and the WA Department of Health's [MP 0038/16 Insertion and Management of Peripheral Intravenous Cannulae in Healthcare Facilities Policy](#).

A peripheral intravenous cannula provides direct access to the patient's bloodstream and therefore poses a serious risk for infection from microorganisms introduced either at the time of insertion or while the cannula is in situ.<sup>1</sup>

PIVC related infections are associated with increased morbidity and mortality, prolonged hospital stay and additional healthcare costs. Infections associated with PIVC are considered preventable adverse events.<sup>1</sup>

## 2. Guideline

### 2.1 Assess intravenous access needs

**Refer** to Quality Statement 1 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To ensure that all alternative routes of administration are considered and excluded before using the intravenous route.<sup>2</sup>

#### **Considerations:**

- If a patient requires medicines or fluids, assess the patient to identify the most appropriate route of administration for their clinical needs before starting therapy
- Consider whether another route of administration (for example, the oral, intramuscular, subcutaneous, rectal route) is appropriate before using the IV route
- Consider if the patient already has venous access insitu that could be utilised
- If all other routes of administration have been excluded and IV access is needed, assess whether peripheral or central venous access is appropriate by considering the:
  - Patient's medical history, immunological status, age, clinical and vascular condition (e.g. lymph node clearance post breast cancer, history of DVT, or fistula in haemodialysis patients)
  - Expected duration of therapy
  - Likelihood of repeated or prolonged administration of vesicants or irritants such as vancomycin, flucloxacillin, potassium or certain types of chemotherapy

- Patient's history of infusion therapy and whether there were complications associated with its use – for example, difficulty locating suitable veins
- Availability of appropriate insertion sites and the likelihood of first-time insertion success
- Position of the patient during any planned procedures
- Patient's lifestyle, body image, and preferences for therapy and location of the device, and whether therapy can be delivered safely in accordance with their preferences
- Availability of resources and ability to care for the device.
- Collection of pathology samples:
  - Routine collection of pathology samples alone is not a valid reason to insert a PIVC.
    - While this practice is sometimes observed in emergency departments, it can result in unused PIVCs being left insitu, increasing the risk of complications.
    - If frequent sampling is anticipated (e.g. fourth hourly troponin levels), exceptions may be considered following individual assessment to optimise patient comfort, or if difficult venous access is a concern.<sup>2</sup>
    - In infants and children if multiple blood sampling is required for short term investigative procedures or emergency management, a peripheral blood sampling line may be inserted.<sup>1</sup>
    - In emergency situations a PIVC may be inserted in anticipation of intravenous fluid resuscitation or intravenous medication administration. However, if intravenous therapy is not likely to be required a venepuncture should be performed solely for sample collection to avoid unnecessary cannulation.
  - In adults blood samples may be drawn from a PIVC directly after insertion, but not at other times. Do not routinely aspirate blood samples directly from PIVC due to potential risk of haemolysis. Exceptions are in an emergency when the patient has limited vascular access or is at increased risk of bleeding or receiving thrombolytic therapy<sup>1</sup>
  - In **neonates, infants and children** refer to WA Health [Communicable Disease Control Directorate Guideline for the Insertion and Management of Intravenous Cannulae in Healthcare Facilities](#) section 4.3.8 for specific guidance on PIVC blood sampling (including blood cultures)
  - PIVCs should not be used to obtain blood cultures as this leads to an increased risk of contamination to the blood culture and PIVC.<sup>2</sup> If the procedure is performed, a second set of blood cultures collected by venepuncture are to be collected<sup>1</sup> Additionally, an exception may be in select cases on the advice of Infectious Diseases/Microbiology – they may request sampling from the PIVC followed by removal of the PIVC
  - Refer to the WACHS Specimen Collection Procedure Table for blood sampling via PIVC.

A [Vascular access decision pathway](#) can be used by clinicians to evaluate the type of vascular access needed.

### DRIP Criteria

The DRIP Criteria asks four simple questions that support risk assessment at the time of PIVC

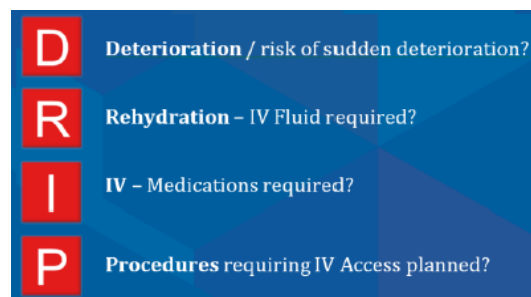


Figure 1: D.R.I.P Criteria

insertion and in monitoring the ongoing need for a PIVC. If the answer is 'No' to **all** criteria, the PIVC may not be required.

Posters are available to be printed and laminated and attached to WACHS IV Trolleys and computers-on-wheels to encourage removal at the decision point.

[DRIP Poster blue](#)

[DRIP poster white](#)

### 2.2 Inform and partner with patients

**Refer** to Quality Statement 2 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To ensure that, when clinically possible, a patient is given information about their need for IV access and the procedures associated with inserting, maintaining and removing a PIVC. This is so patients can consider the risks and benefits and make a decision about whether it is right for them. Patients also have the opportunity to ask questions so that they can be engaged in the management of their PIVC and help reduce the risk of device-related complications.<sup>2</sup>

**Pre-insertion resources:** The Australian Commission on Safety and Quality in Health Care has developed the [IV Wise – patient discussion tool](#) – this tool provides key discussion points for clinicians and patients to help involve patients in their care and prevent PIVC-related complications.

#### Post-insertion resources:

WACHS	<ul style="list-style-type: none"><li>• <a href="#">Your intravenous cannula-drip: How to care for your drip while in hospital (adult version)</a></li><li>• <a href="#">Your intravenous cannula-drip: How to care for your drip while in hospital (paediatric version)</a></li></ul>
ACSQHC	<ul style="list-style-type: none"><li>• <a href="#">Looking after your cannula – patient information</a></li><li>• <a href="#">IV Wise – patient discussion tool</a></li></ul>

### 2.3 Ensure competency

**Refer** to Quality Statement 3 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To minimise trauma to the patient by ensuring that PIVCs are inserted and/or maintained by appropriately skilled members of the healthcare team.<sup>2</sup>

**Scope of practice:** In WACHS clinicians inserting PIVCs are to work within their individual and professional scope of practice, level of training and experience, and job role. Clinicians are encouraged to maintain evidence of currency within their professional portfolio.

### 2.3.1 Training

**Note:** Insertion of PIVC has a pre-requisite of completion of the WACHS Aseptic Technique course via our Learning Management System (LMS).

For those new to the skill or refreshing there are a number of training opportunities and resources available in WACHS. These include:

- **eLearning program** via our LMS - Peripheral Intravenous Cannulation Insertion.
- **Skills trainers** - observe and practice cannulation on a skill trainer prior to supervised cannulation of a patient (seek support of a staff member that has PIVC insertion within their scope of practice)
- **Video** – PIVC insertion by Anaesthetist Royal Perth Hospital (<https://www.youtube.com/watch?v=liuGJdKARCE> – also available as a resource within the Peripheral Intravenous Cannulation Insertion training program via our LMS
- **Supervised practice** – evidenced using the WACHS [PIVC Insertion Observation Checklist](#) (two successful insertions). This document can also be used as evidence for Aseptic Technique Competence and recorded in the LMS.

### 2.4 Choose the right insertion site and PIVC

**Refer** to Quality Statement 4 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To ensure that an appropriate PIVC is selected and inserted in a suitable site that minimises the risk of failure and other PIVC-related complications, considering the patient's clinical condition and preferences for the location of the PIVC.<sup>2</sup>

#### **Device considerations:**

- **Safety engineering** - use devices with safety-engineered protective features to reduce the risk of injury involving a sharp
- **Administration of blood products** - when selecting venous access for the administration of blood products consider the following information from the: Australian and New Zealand Society of Blood transfusion Ltd and Royal College of Nursing Australia, Guidelines for the Administration of Blood Products, specifically Section 6.1 Venous Access<sup>4</sup>:
  - Intravenous access cannula size must be large enough to maintain an adequate flow rate for the transfusion
  - An18-20G or larger is recommended for non-emergency transfusion in adults. Smaller gauge devices can be used but may restrict the flow rate of the transfusion and result in a much longer time to infuse a component. 22-24G or larger is recommended for paediatric patients. However, the individual clinical context of the patient requiring transfusion will determine the size and type of IV access
  - In the critical bleeding / massive transfusion setting, large diameter IV access may be required to achieve adequate flow rates to resuscitate the patient. Additional IV access points may also be required if blood products need to be administered concurrently
  - In paediatric patients, and in adults with fragile or difficult veins, a smaller gauge cannula may restrict the flow rate and impact on infusion times
- **Patients with chronic renal impairment:**

- the veins of the forearm, upper arm and subclavian are not routinely used for venous access because they are of critical importance for the creation of arterio-venous fistula for haemodialysis. Cannulation in an emergency is acceptable with early removal of the PIVC once the patient is stabilised. If the patient has a fistula, a PIVC should not be inserted into the fistula
- In patients with chronic renal impairment or receiving dialysis who require a PIVC, the metacarpal veins (on the dorsum of hand) is the preferred site. Avoid cannulation of the arm with a functioning arteriovenous fistula in place
- The medical team of patients with chronic renal impairment must determine and document the most appropriate type and site for vascular access devices considering current and future dialysis access requirements
- **Neutropenic patients** – refer to the WACHS [Nursing Management of the Neutropenic ADULT Haematology and Oncology Patient Procedure](#) for specific considerations for venous access
- **Rapid infusion catheters** - consider the use of rapid infusion catheters in situations where rapid volume infusions is needed
- **Aeromedical retrieval** - consider if the patient is likely to require aeromedical retrieval - Refer to the [Acute Patient Transfer Coordination \(APTC\) Service](#) for PIVC requirements for WACHS Patient Transport
- **Contrast media for diagnostic purposes** - consider whether the PIVC is to be used to administer contrast media for diagnostic purposes. In some cases, radiology may require certain size PIVCs located in more proximal veins. Clinicians should request advice from radiology as appropriate

### 2.5 Maximise first insertion success

Refer to Quality Statement 5 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To reduce multiple failed insertion attempts that increase the risk of device failure and cause patient's undue pain and anxiety, as well as diminished vascular health.<sup>2</sup>

#### **Considerations**<sup>1,2:</sup>

Multiple PIVC insertion attempts can increase patient's anxiety, increase overall procedural pain, reduce patient satisfaction, and increase risk of infection. Reducing the number of unsuccessful PIVC attempts and time to PIVC insertion is important to improve patient and staff experience, patient outcomes, patient flow and overall costs to the organisation.<sup>8</sup>

- If the clinical presentation of a patient is such that the likelihood of inserting a PIVC successfully on the first attempt is low given the clinician's current experience in PIVC insertion, refer to a clinician who is more experienced in PIVC insertion where possible
- Strategies to optimise first-time insertion success include<sup>1,2:</sup>
  - escalating to a more experienced clinician
  - using technology-assisted devices such as ultrasound (improves identification of suitable veins in patients with difficult IV access and reduces the requirement for central venous lines, which are more time-consuming and carry a higher risk of complications<sup>8</sup>)
  - adjunct supportive therapies such as local anaesthetics

- for paediatric patients, consider using parental support or child play therapy to maximise the likelihood of successful insertion on the first attempt
- Difficult or unsuccessful insertions can cause bruising, thrombosis, delays in treatment, reduced access to veins for future health needs, and undue pain and anxiety for the patient
- It is important to conduct a thorough assessment of risk factors that may contribute to difficult insertion, ask the patient about whether they have had issues with PIVC insertions previously, and escalate to a more experienced clinician where possible
- If more than one attempt to insert the PIVC is required, specify the reason (for example, lack of more experienced staff to escalate to in the after-hours setting, or patient dehydration) in the patient's healthcare record and escalate to a more experienced clinician

### 2.6 Insert and secure

**Refer** to Quality Statement 6 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To emphasise the need for correct infection prevention and control measures regarding PIVC insertion. The device is secured to minimise complications and unintentional loss of IV access, and the PIVC and insertion site can be easily monitored.<sup>2</sup>

#### Key points:

- Insert and secure a PIVC using standard precautions, including aseptic technique
- Use a dressing pack (or PIVC insertion pack where stocked)
- Gloves are to be utilised for insertion of a PIVC as per MP 0038/16
- Decontaminate the skin with 2% chlorhexidine gluconate in 70% alcohol unless contraindicated or in neonates<sup>1</sup>
- Use a sterile, transparent, semipermeable dressing to secure the PIVC (refer Figure 2 for sample PIVC dressing)<sup>1,2</sup>:
  - consider patient characteristics such as allergies to tapes
  - secure the dressing, taking care not to contaminate the insertion site
  - ensure that the dressing remains intact for the duration of the insertion to prevent complications such as unintended dislodgement (unless there is no longer a seal or there is excessive accumulation of blood or moisture)
- All PIVC are to have an extension set attached<sup>1</sup> (e.g. j-loop) except for those PIVC utilised for short stay therapy in an outpatient, emergency or procedural setting, where the use of a needleless valve is acceptable (extension sets help maintain stability and reduce trauma to the vein)
- Labelling in accordance with the National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines<sup>1,2</sup>



Figure 2: Example of PIVC Dressing

- specifically, catheters must be identified when there is a risk of wrong route of administration (for example, where the patient entry port is distant from the administration site).

### 2.7 Document decisions and care

**Refer** to Quality Statement 7 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To ensure that the plan of care for a patient's PIVC is clear and that decisions relating to the PIVC and its condition are accurately recorded and accessible to all clinicians involved in the patient's care.<sup>2</sup>

#### Insertion information:

- the clinician inserting the PIVC documents the record of insertion site, date, time and their name<sup>1,2</sup>
- where an insertion sticker is available, this is completed and affixed to the MR179
- insertion details recorded on the MR179 and healthcare record include<sup>2</sup>:
  - Why the PIVC is needed
  - Length and gauge of the PIVC
  - Where the PIVC is located
  - Who inserted the PIVC
  - Date and time of insertion (this should also be recorded on the label)
  - Infection prevention and control methods used (use of aseptic technique, dressing, and any issues arising during insertion)
- PIVC is labelled with date and time of insertion, and is affixed:
  - for adults and paediatrics – on the edge of the PIVC dressing so as not to interfere with visible assessment of the PIVC site<sup>1</sup>
  - for Neonates – on the splint<sup>19</sup>
- **A plan of care** for the patient's PIVC should include details about when the device is expected to be removed and any results of assessments of the need for the PIVC (refer [section 2.9](#))
- **Pre-hospital environment:**
  - St John Ambulance patients who have cannulas inserted in the pre-hospital environment will have a special 'Emergency' insertion IV dressing to prompt removal within/by 24hs (see Figure 3).
- **Theatre patients:**

It is recognised that the peri-operative setting provides a controlled environment in relation to performing aseptic technique procedures, in comparison to a semi-controlled environment such as a medical wards and uncontrolled environments such as an emergency department.



Figure 3: Sample emergency insertion IV dressing  
(Image used with permission by 3M)

PIVC insertion in the Peri-operative setting is routinely undertaken by Anaesthetists who specialise in this procedure. In this unique environment some modified insertion practices may be applied as follows:

- Use of a sterile pack / field e.g. IVC starter kit, dressing pack, sterile sheet or anaesthetic pack

- insertion is to be documented on the anaesthetic record when PIVC is inserted by the anaesthetist
- any additional cannula insertions / insertion attempts in the peri-operative setting are to be documented
- any cannulas that are required to remain insitu must be documented and relevant information transferred to the MR179 WACHS Peripheral Intravenous Cannula Observation Record
- each point of transition of care i.e. from theatre – recovery – ward, provides an opportunity to ensure that PIVC documentation is complete
- **Medical imaging:**
  - for patients attending WACHS Medical imaging departments who have a PIVC inserted by medical imaging staff for administration of contrast media for computed tomography (CT) scans or other procedures (and are removed prior to leaving their appointment), the insertion sticker from the PIVC insertion pack is to be completed and attached to the IV contrast patient questionnaire or medical imaging request form, then scanned into the Radiological Information System (RIS)
  - if an inpatient in medical imaging already has an MR179 WACHS Peripheral Intravenous Cannula Observation Record and requires additional cannula insertion (and this is subsequently removed following their imaging procedure), the insertion and removal are also recorded on the existing MR179
  - where an outpatient's PIVC remains insitu e.g. if patient is going to the emergency department (ED) for triage after having CT scan, the cannula is left insitu and the insertion information is recorded by the radiology staff on the MR179 WACHS Peripheral Intravenous Cannula Observation Record. The MR179 is sent with the patient to ED for ongoing use.

Refer also to the WACHS Clinical Documentation Policy.

### 2.8 Routine use: inspect, access and flush

**Refer** to Quality Statement 8 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To reduce the risk of PIVC device failure and preserve vessel health by ensuring that PIVCs are regularly reviewed, and access is maintained using standard precautions, including aseptic technique. PIVCs are also flushed at intervals to maintain patency, reduce the risk of blockage, and prevent mixing of incompatible medicines or solutions.<sup>2</sup>

#### Inspect

- Routinely inspect the PIVC and insertion site for signs of complications that can lead to device failure<sup>1,2</sup>. Where extravasation is suspected or occurred refer to the '[PIVC Complication – Extravasation Guide](#)' (paravenous leak / extravasation occurs where a drug or substance breaches the venous wall and leaks into the surrounding tissues leading to tissue damage with potential for further harm).
- Inspection is performed at least every eight hours while the PIVC is insitu, each time the PIVC is accessed, and continued for 48 hours post removal<sup>1,2</sup>
- a peripheral intravenous assessment score (PIVAS) is documented on the [MR179 WACHS Peripheral Intravenous Cannula Observation Record](#)

- any ongoing PIVC site issues are to be documented in the patient's healthcare record
- where a patient has a PIVC inserted, **the PIVAS score must be included in clinical handover**
- **Neonates and paediatrics**<sup>1</sup>: there is a requirement to inspect the PIVC insertion site at least hourly when a continuous infusion is in progress, and with each intermittent medication and flush administration, ensuring any covering is removed completely to perform an assessment of the insertion site and to observe the limb above and below the site. Site assessment can be recorded in the PIVAS column on the MR144P WACHS Neonatal / Paediatric Fluid Balance Worksheet. Any adverse findings are to be documented in the patient's medical record.
- During the inspection:
  - **Look**: observe the PIVC site for erythema, swelling or exudate. Is the dressing intact, clean and dry?
  - **Listen**: Ask the patient or use visual cues. Is there pain or tenderness on infusion/ palpation or movement? Ask the patient questions to check whether they are tolerating their PIVC, and whether they understand why it is needed and the treatment they are having. Ask if they have any concerns associated with the use of their PIVC and deal with those concerns.
  - **Feel**: palpate the site through the intact dressing for heat or vessel hardening.

### Access

- Use standard precautions, including aseptic technique, when accessing the PIVC or performing site care to help reduce the risk of PIVC-associated infections<sup>2</sup>
- Decontaminate needleless connectors before and after access with 70% alcohol and allow to fully air dry<sup>1,2</sup>
- Administration sets are single use devices. If they are disconnected from the intravenous cannula for any reason (e.g. intermittent medication dosing) the set is to be discarded and a new administration set connected using aseptic technique<sup>1</sup> (Intermittent disconnection of administration sets increases risk of infection through manipulation of the hub and contamination, and occlusion due to reflux of blood into the catheter tip<sup>11</sup>)

### Flush

- Sodium chloride 0.9% (5-30 mL) may be administered without prescription to maintain venous access patency and flushing. Consider compatible diluents
- With 5-10 mL of sterile sodium chloride 0.9% using a 10 mL luer-lock syringe or commercially available pre-filled syringe to help avoid excessive pressure using a pulsatile motion (push-pause)<sup>1</sup>:
  - after the PIVC is inserted and prior to use to confirm placement
  - before each medication or infusion is given to ensure the PIVC is still patent
  - after each injection / infusion to remove irritant material from the vein
  - between multiple infusions or medications to prevent interactions and incompatibilities
  - prior to and after blood drawing (refer section 9. Blood collection)
  - at least every 12 hours if the PIVC is not in use (strong consideration should be given to removing the PIVC if it has not been accessed for 12 hours)
- Special circumstances:

- **Adult Resuscitation** - 20-30 mL sodium chloride 0.9% is used to flush medications in adult resuscitation situations, followed by external cardiac compression<sup>5</sup>
- **Infant and child resuscitation** - small boluses of sodium chloride 0.9% is used<sup>5</sup>
- **Amiodarone** - glucose 5% is used.<sup>5</sup>

### 2.9 Review ongoing need

**Refer** to Quality Statement 9 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To ensure that PIVCs are promptly removed when they are no longer needed.<sup>2</sup>

#### **Review:**

- daily or when clinically indicated, for ongoing need and removed as soon as no longer required<sup>1</sup>
- refer to the [D.R.I.P criteria section](#)
- if continued access is required refer to [Section 2.10](#)
- whether switching from IV to oral therapy is possible<sup>1,2</sup>
- whether an alternative device is indicated if extended IV therapy is anticipated (refer to [Section 2.1](#)).<sup>2</sup>

### 2.10 Remove safely and replace if needed

**Refer** to Quality Statement 10 of the ACSQHC's Management of Peripheral Intravenous Catheters Clinical Care Standard.<sup>2</sup>

**Purpose:** To minimise complications by ensuring that PIVCs are removed safely when they are no longer needed, when they malfunction or when complications develop. Replacement with a new device only occurs when IV therapy needs to continue.<sup>2</sup>

#### **Removal:**

Remove PIVCs as soon as they are no longer needed (e.g. if a patient can tolerate oral therapy) or if complications occur<sup>1,2</sup> (as indicated by the PIVAS score – refer to MR179).

Encourage the placement of removal packs on computer-on-wheels for doctors on ward rounds to remove unnecessary PIVCs at point of decision.

- **Circumstances for removal within/by 24hs** – PIVCs inserted by:
  - ambulance services or in an emergency situation or where adherence to aseptic technique is uncertain or unknown (e.g. insertion during a medical emergency) are to be replaced as soon as the patient's condition has stabilised or within 24 hours of insertion<sup>1</sup>
  - external medical imaging departments should be considered for removal within/by 24hs
- **Adults** - if continued access is required all are to be re-sited at 72 hours or more frequently if clinically indicated<sup>1</sup>
- **Paediatrics** – not routinely replaced. The PIVC can remain in situ if<sup>1</sup>:
  - the PIVC is clinically indicated

- there is no evidence of local (redness, pain, tracking) or systemic (fever and rigors) signs of infection
- is still flushing well without resistance or leakage from the insertion site
- **Documentation** - removal is to be documented on the MR179 WACHS Peripheral Intravenous Cannula Observation Record /inpatient notes/short stay discharge documentation. Information is to include date and time of removal, clinician name who removed PIVC and the reason for removal
- **Observations** - observe the insertion site for 48 hours after the PIVC is removed for signs of post-infusion pain, redness or swelling<sup>1,2</sup>
- **Discharge:**
  - for inpatients, ensure that PIVCs are removed before discharge, unless the PIVC is intended to continue beyond discharge as part of the patient’s care plan<sup>2</sup>
  - on discharge from hospital, explain what signs they should look out for after the PIVC is removed and who they should contact if signs of infection develop<sup>1,2</sup> (provide the patient with the written patient information – refer to [section 2.2](#) Post insertion resources)

### 3. Definitions

Refer to the Glossary in the ACSQHC’s [Management of Peripheral Intravenous Catheters Clinical Care Standard](#) for an extensive list of terms.

<b>PIVAS</b>	Peripheral intravenous assessment score. A validated tool for evaluating and documenting the status of PIVC sites.
<b>PIVC</b>	Peripheral intravenous cannula. A device that is designed to be inserted into and remain within a peripheral vein (excludes peripherally inserted central line catheters).
<b>RIC</b>	Rapid infusion catheters (RIC) is a device used to convert standard peripheral intravenous access into a large-volume resuscitation portal. RICs are useful for patients requiring prompt, large volume fluid resuscitation. The high-flow, low-resistance device may be readily inserted in a large peripheral vein via a standard guidewire/dilator/catheter insertion technique by trained clinicians.

### 4. Roles and Responsibilities

Clinicians are required to work within policies and guidelines and within their identified scope of practice, level of experience and work role.

### 5. Compliance

Failure to comply with this policy document may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Integrity Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (WA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

### 6. Records Management

All WACHS clinical records must be managed in accordance with [Health Record Management Policy](#).

### 7. Evaluation

Monitor patient outcomes via Staphylococcal Aureus Blood Stream Infection (SABSI) Healthcare Infection Surveillance WA (HISWA) reports quarterly.

Monitor Aseptic Technique using the agreed WACHS audit tool – frequency to be determined at the regional level using a risk assessment approach.

### 8. Standards

[National Safety and Quality Health Services \(NSQHS\) Standards](#) - 1.2, 1.7, 1.8, 1.11, 1.16, 2.3-2.7, 2.9, 2.10, 3.1 - 3.12, 4.1 – 4.4, 4.13, 8.10

Australian Commission on Safety and Quality in Health Care:  
[Management of Peripheral Intravenous Catheters Clinical Care Standard](#)  
[National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines](#)

### 9. Legislation

[Carers Recognition Act 2010](#) (Commonwealth)  
[Health Practitioner Regulation National Law \(WA\) Act 2010](#)  
[Work Health and Safety and Health Act 2020](#) (WA)  
[Privacy Act 1988](#) (Commonwealth)

### 10. References

1. WA Department of Health's [MP 0038/16 Insertion and Management of Peripheral Intravenous Cannulae in Healthcare Facilities Policy](#) [Accessed 1<sup>st</sup> October 2025]
2. Australian Commission for Safety and Quality in Health Care [Management of Peripheral Intravenous Catheters Clinical Care Standard](#). May 2021. Sydney [Accessed 1<sup>st</sup> October 2025]
3. National Health and Medical Research Council, Australian Commission on Safety and Quality in Healthcare. [Australian guidelines for the prevention and control of infection in healthcare](#). Canberra: NHMRC; 2019. [Accessed 1<sup>st</sup> October 2025]
4. Australian and New Zealand Society of Blood Transfusion Ltd, Royal College of Nursing Australia [Guidelines for the Administration of Blood Products](#), Feb 2024 [Accessed 1<sup>st</sup> October 2025]
5. Australian Resuscitation Council: [ARC Guidelines](#). [Accessed 1<sup>st</sup> October 2025]
6. The Royal Australian and New Zealand College of Radiologists. [RANZCR Guidelines for Iodinated Contrast Administration](#) Sydney: RANZCR. [Accessed: 1 October 2025]

7. Queensland Government Department of Health [eviQ Clinical Resources: Extravasation Management](#). [Accessed: 1 October 2025]
8. Sweeny A, et al. The experience of patients at high risk of difficult peripheral intravenous cannulation: An Australian prospective observational study, Australasian Emergency Care, <https://doi.org/10.1016/j.auec.2021.07.003> [Accessed 2 October 2025]

### 11. Related Forms

MR144P [WACHS Neonatal / Paediatric Fluid Balance Worksheet](#)  
MR179 [WACHS Peripheral Intravenous Cannula Observation Record](#)  
MR5 [Outpatient Notes](#)  
MR55A [Inpatient Progress Notes](#)

### 12. Related Policy Documents

WACHS [Pre and Post Procedural Management Clinical Practice Standard](#)  
WACHS [Consent to Treatment Policy](#)  
WACHS [Aseptic Technique](#)  
WACHS [Chaperone Policy](#)  
WACHS [Clinical Observations and Assessments Clinical Practice Standard \(physiological, neurovascular, neurological and fluid balance\)](#)  
WACHS [Clinical Documentation Policy](#)  
WACHS [Hand Hygiene Policy](#)  
WACHS [Infection Prevention and Control Policy](#)  
WACHS [Nursing Management of the Neutropenic ADULT Haematology and Oncology Patient Procedure](#)  
WACHS [Specimen Collection Procedure](#)  
WACHS [Waste Management Policy](#)

### 13. Related WA Health System Policies

MP 0053/17 [Patient Alert Policy](#)  
MP 0122/19 [Clinical Incident Management Policy](#)  
MP 0175/22 [Consent to Treatment Policy](#)  
MP 0038/16 [Insertion and Management of Peripheral Intravenous Cannulae in Healthcare Facilities Policy](#)  
MP 0051/17 [Language Services Policy](#)

### 14. Policy Framework

[Public Health](#)

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<b>Contact:</b>	Program Officer – Clinical Practice Standards		
<b>Directorate:</b>	Safety and Quality	<b>EDRMS Record #</b>	ED-CO-18-44368

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## WACHS Peripheral Intravenous Cannula (PIVC) Guideline

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