# AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE



D19-21456

# **Evidence Sources: Peripheral Venous Access Clinical Care Standard**

**Consultation draft** 

**July 2019** 

#### Introduction

The quality statements for the Peripheral Venous Access Clinical Care Standard were developed in consultation with the Peripheral Venous Access Clinical Care Standard Topic Working Group and are based on best available evidence and guideline recommendations at the time of development. Where limited evidence is available, the Commission consults with a range of stakeholders to explore issues and expert opinion.

Literature searches are conducted by the Australian Commission on Safety and Quality in Health Care (the Commission) at different stages of the development of a clinical care standard using a rapid review methodology. The initial search for this clinical care standard was conducted in December 2018. A draft evidence summary was reviewed by the Peripheral Venous Access Clinical Care Standard Topic Working Group. Subsequent searches were conducted as the clinical care standard was developed.

The searches aim to identify the evidence base for each quality statement and include searching for current:

- Australian clinical practice guidelines, standards, policies and protocols
- International clinical practice guidelines and standards
- Other high-level evidence, such as systematic reviews and meta-analyses.
   Randomised controlled trials published after the release of the key clinical practice guidelines, were also considered where the results could potentially impact on guideline recommendations.

Australian clinical practice guidelines, standards and policies were identified by searching:

- The clinical practice guideline portal of the National Health and Medical Research Council (NHMRC)
- Websites of professional colleges and organisations
- Websites of state and territory health departments and agencies
- The internet, through search engines.

International clinical practice guidelines were identified by searching:

- Guideline clearing houses including the Agency for Healthcare Research and Quality (AHRQ), and the Guidelines International Network (GIN)
- Websites of guideline developers, such as the UK's National Institute for Health and Care Excellence (NICE) and the Scottish Intercollegiate Guideline Network (SIGN)
- Medical literature databases (such as Medline and Embase).

Other high-level evidence was identified by searching:

- The Cochrane Collaboration for systematic literature reviews and metaanalyses
- Medical literature databases (including Medline and Embase) for systematic reviews and meta-analyses.

To further inform development, the Commission engaged the Queensland University of Technology(QUT), and KP Health to carry out two literature reviews to better understand the:

- Techniques for preventing and managing adverse events associated with the insertion and use of PIVCs (<u>conducted by QUT</u>)
- nfection prevention and control methods associated with the insertion and use of PIVCs (<u>conducted by KP Health</u>)

The reviews address the following research questions:

- 1. What relevant guidelines, policies and procedures, health programs or strategy documents are available in Australia or in the absence of an Australian guideline, high quality guidelines from an equivalent healthcare system (e.g. UK, USA, and Canada)?
- 2. What do current guidelines specifically recommend?
- 3. What evidence is there regarding current clinical practice in Australia?
- 4. What contributes to variations in techniques used/infection rates associated with peripheral venous access? What are the evidence gaps?
- 5. What is the literature on interventions to reduce complications/infections associated with PIVCs? What is the effectiveness of those interventions? What are the evidence gaps?
- 6. What is the rationale for a clinical care standard (or of standardised interventions to improve care)?

A high level summary of evidence sources for each draft quality statement is provided on page 3. A list of the key evidence sources for each of the draft quality statements is also included.

Table 1: Overview of evidence sources for the Peripheral Venous Access Clinical Care Standard

				Releva	nce to the qua	lity statements	(QS)			
Evidence source	QS1. Identify need for intravenous access	QS2. Inform and partner with patients	QS3. Ensure competency	QS4. Document decisions and care	QS5. Maximise first insertion success	QS6. Choose the right insertion site and peripheral device	QS7. Insert and secure	QS8. Routine use: inspect, access, flush	QS9. Review ongoing need	QS10. Remove safely and replace if needed
Australian guidelines										
National Health and Medical Research Council. Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019).	<b>✓</b>	<b>√</b>	<b>√</b>	<b>&gt;</b>		•	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients (2013)	<b>✓</b>	<b>√</b>	<b>√</b>			<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
Queensland Health. Peripheral intravenous catheter (PIVC) Guideline (2015)		<b>√</b>		<b>,</b>				<b>✓</b>		<b>√</b>
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy (2017)	<b>*</b>	Ś	) /	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) (2015)		,	<b>√</b>	<b>√</b>	<b>√</b>	<b>~</b>	<b>~</b>	<b>~</b>		<b>√</b>

International guidelines										
Infusion Nurses Society. Infusion therapy standards of practice (2016)	<b>✓</b>	<b>✓</b>	✓	~	<b>✓</b>	<b>~</b>	•	<b>✓</b>	<b>✓</b>	✓
epic3: national evidence- based guidelines for preventing healthcare- associated infections in NHS hospitals in England (2013)		<b>√</b>	<b>√</b>			<b>~</b>	<b>√</b>	<b>~</b>	<b>√</b>	<b>~</b>
Royal College of Nursing. Standards for infusion therapy (2016)	<b>✓</b>	<b>*</b>	<b>√</b>	~	1		<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
The Association of Anaesthetists of Great Britain and Ireland. Safe vascular access (2016)				.(		<b>~</b>				<b>~</b>
National Institute for Health and Care Excellence. Infection prevention and control. QS61 (2014)		<b>~</b>	, 5							

Only the key Australian and International guidelines are included in this table. Other evidence sources are listed in the following tables for each quality statements

Quality statement 1: Identify need for intravenous access

A patient requiring medicines or fluids is assessed to identify to most appropriate route of administration for their clinical needs.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 167
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	p. 3
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p. 1
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx</a> (accessed Dec 2018).	p. 4
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	p. S51
Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp. 10, 34, 50, 61

Quality statement 1: Identify need for intravenous access

A patient requiring medicines or fluids is assessed to identify to most appropriate route of administration for their clinical needs.

Other sources	Note
Sou V, McManus C, Mifflin N, Frost SA, Ale J, Alexandrou E. A clinical pathway for the management of difficult venous access. BMC Nurs. 2017;16:64.	-
Health Protection Scotland. Infection control: Preventing infections when inserting and maintaining a peripheral vascular catheter (PVC) [internet] Scotland: NHS National Services Scotland; 2014 [Available from: <a href="https://www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660">www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660</a>	p. 7

Quality statement 2: Inform and partner with patients A patient requiring intravenous access receives information and education about the need and the procedure so they can provide informed consent and help reduce the risk of device-related complications.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 171
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	pp. 3, 4
Queensland Health. Peripheral intravenous catheter (PIVC) Guideline Brisbane: Queensland Government; 2015. Available from: <a href="www.health.qld.gov.au/data/assets/pdf">www.health.qld.gov.au/data/assets/pdf</a> file/0025/444490/icare-pivc-guideline.pdf (accessed Nov 2018).	p. 3
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p. 2
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx</a> (accessed Dec 2018).	p. 4
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp. S25-S26

Quality statement 2: Inform and partner with patients	A patient requiring intravenous access receives information and education procedure so they can provide informed consent and help reduce the risk complications.	
,	g. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; www.rcn.org.uk/professional-development/publications/pub-005704 (accessed	pp. 9, 12-13, 65
NICE; 2014 [cited Jan 2	alth and Care Excellence. Infection prevention and control. QS61. London: 019]; Available from: <a href="https://www.nice.org.uk/guidance/qs61/resources/infection-pdf-2098782603205">www.nice.org.uk/guidance/qs61/resources/infection-pdf-2098782603205</a> (accessed Jan 2019).	pp. 44
•	, Pratt RJ, Golsorkhi M, Tingle A, Bak A, et al. epic3: national evidence-based g healthcare-associated infections in NHS hospitals in England. J Hosp Infect Epub 2013/12/18.	p. S8
Other sources		Note
safety and quality Sydn	on Safety and Quality in Health Care. Health literacy: Taking action to improve ey: ACSQHC; 2014 [Available from: uality.gov.au/publications/health-literacy-taking-action-to-improve-safety-and-	-

quality/.

## **Quality statement 3: Ensure competency**

A clinician inserting and/or maintaining a PIVC is trained and assessed as competent in practices to prevent PIVC-related complications that are relevant to their scope of practice, and according to current, evidence-based recommendations.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 169
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	p. 3
Queensland Health. Peripheral intravenous catheter (PIVC) Guideline Brisbane: Queensland Government; 2015. Available from: <a href="www.health.qld.gov.au/">www.health.qld.gov.au/</a> data/assets/pdf file/0025/444490/icare-pivc-guideline.pdf (accessed Nov 2018).	p. 3
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p. 1
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015. Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx (accessed Dec 2018).</a>	p. 3
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp. S17, S18

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Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	p. 11, 67-68
Loveday HP, Wilson JA, Pratt RJ, Golsorkhi M, Tingle A, Bak A, et al. epic3: national evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. J Hosp Infect. 2014;86 Suppl 1:S1–70. Epub 2013/12/18.	p. S8
Other	Note
Moureau NL, Carr PJ. Vessel Health and Preservation: a model and clinical pathway for using vascular access devices. Br J Nurs. 2018;27(8):S28-s35.	pp. S30, S32

Quality statement 4:
Document decisions and care

A patient with a PIVC will have documentation of the insertion, maintenance and removal of the device, and regular review of the insertion site.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	p. 162
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	p. 9, 10
Queensland Health. Peripheral intravenous catheter (PIVC) Guideline Brisbane: Queensland Government; 2015. Available from: <a href="www.health.qld.gov.au/">www.health.qld.gov.au/</a> data/assets/pdf_file/0025/444490/icare-pivc-guideline.pdf (accessed Nov 2018).	p. 3, 17
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p.2, 12
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx (accessed Dec 2018).</a>	p. 6
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	p. S28

Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp. 12, 13, 41, 43
Other	Note
Moureau NL, Carr PJ. Vessel Health and Preservation: a model and clinical pathway for using vascular access devices. Br J Nurs. 2018;27(8):S28-s35.	p. S31

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	p. 169
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	p. 3, 6-7
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p. 2
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx (accessed Dec 2018).</a>	p. 2
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp. S17, S51, S54, S44
Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	p. 35

Quality statement 5: Maximise first insertion success	A healthcare organisation has a procedure to maximise first insertion succes	S.
	J, Binks R, Fee P, Fox B, et al. Association of Anaesthetists of Great Britain and 016. Anaesthesia. 2016;71(5):573–85.	p. 2
Other		Note
Moureau NL, Carr PJ. Vessel Hedevices. Br J Nurs. 2018;27(8):	ealth and Preservation: a model and clinical pathway for using vascular access S28-s35.	p. \$30

Quality statement 6: Choose the right insertion site and peripheral device

Where peripheral venous access is appropriate, a clinician assesses the patient to identify the most suitable insertion site and PIVC (length and guage) to meet the patient's clinical needs and their preferences for its location.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 168-69
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	pp. 3-4, 6-7
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	p. 1, 8
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx (accessed Dec 2018).</a>	p. 5
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp. S51, S54, S44
Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp. 10, 34, 35-36

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Loveday HP, Wilson JA, Pratt RJ, Golsorkhi M, Tingle A, Bak A, et al. epic3: national evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. J Hosp Infect. 2014;86 Suppl 1:S1–70. Epub 2013/12/18.	p. S8
Bodenham A, Babu S, Bennett J, Binks R, Fee P, Fox B, et al. Association of Anaesthetists of Great Britain and Ireland: Safe vascular access 2016. Anaesthesia. 2016;71(5):573–85.	p. 2
Other	Note
Moureau NL, Carr PJ. Vessel Health and Preservation: a model and clinical pathway for using vascular access devices. Br J Nurs. 2018;27(8):S28-s35.	p. S29

### Quality statement 7: Insert and secure

A clinician inserting a patient's PIVC implements standard precautions, including hand hygiene and wearing gloves. Aseptic technique is maintained at all times to reduce the risk of infection. The device is secured, and an appropriate sterile, transparent, semi-permeable dressing is used to help protect it from contamination

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 169
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	pp. 5-6
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	pp. 1, 9
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx (accessed Dec 2018).</a>	p. 2
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp S38, S72
Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp 34, 37-39

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Other	Note
Health Protection Scotland. Infection control: Preventing infections when inserting and maintaining a peripheral vascular catheter (PVC) [internet] Scotland: NHS National Services Scotland; 2014 [Available from: <a href="https://www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660">www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660</a>	pp.7-9

Quality statement 8: Routine use: inspect, access and flush A clinician inspects a patient's PIVC and insertion site for signs of complications at least once per shift, when accessing the device, or if the patient raises concerns. Standard precautions including hand hygiene, wearing gloves and aseptic technique is maintained at all times when performing site care and accessing the device. Flushing is performed at intervals according to local policy to minimise risk of device failure.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 170
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	pp. 7-9
Queensland Health. Peripheral intravenous catheter (PIVC) Guideline Brisbane: Queensland Government; 2015. Available from: <a href="www.health.qld.gov.au/">www.health.qld.gov.au/</a> data/assets/pdf file/0025/444490/icare-pivc-guideline.pdf (accessed Nov 2018).	p. 10
Government of Western Australia. Insertion and management of peripheral intravenous cannulae in Western Australian healthcare facilities policy Perth: Department of Health; 2017 [Available from: https://ww2.health.wa.gov.au/About-us/Policy-Frameworks (accessed Dec 2018).	pp. 1, 9-10
ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx</a> (accessed Dec 2018).	pp. 7-8
International guidelines and standards	Note
Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	pp. S81, S82 S77, S95

Quality statement 8: Routine use: inspect, access and flush A clinician inspects a patient's PIVC and insertion site for signs of complications at least once per shift, when accessing the device, or if the patient raises concerns. Standard precautions including hand hygiene, wearing gloves and aseptic technique is maintained at all times when performing site care and accessing the device. Flushing is performed at intervals according to local policy to minimise risk of device failure.

Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp. 39, 41. 50, 63-64, 68
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Other	Note
Health Protection Scotland. Targeted literature review: What are the key infection prevention and control recommendations to inform a peripheral vascular catheter (PVC) insertion care quality improvement tool? [internet] Scotland: NHS National Services; 2014 [Available from: <a href="https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6646">https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6646</a> (accessed Nov 2018).	pp. 9-11

Quality statement 9: Review ongoing need

A clinician will review and document the ongoing need for a patient's PIVC at least daily or more often if clinically indicated.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 170
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	p. 9
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Infusion Nurses Society. Infusion therapy standards of practice. J Infus Nurs. 2016;39(1S):S1–S159.	p. S91
Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	p. 68
Loveday HP, Wilson JA, Pratt RJ, Golsorkhi M, Tingle A, Bak A, et al. epic3: national evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. J Hosp Infect. 2014;86 Suppl 1:S1–70. Epub 2013/12/18.	p. S9
Other	Note

Quality statement 9: Review ongoing need A clinician will review and document the ongoing need for a patient's PIVC at least daily or more often if clinically indicated.

Health Protection Scotland. Infection control: Preventing infections when inserting and maintaining a peripheral vascular catheter (PVC) [internet] Scotland: NHS National Services Scotland; 2014 .Available from: <a href="https://www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660">www.hps.scot.nhs.uk/haiic/ic/resourcedetail.aspx?id=660</a> .	p. 7
Health Protection Scotland. Targeted literature review: What are the key infection prevention and control recommendations to inform a peripheral vascular catheter (PVC) insertion care quality improvement tool? [internet] Scotland: NHS National Services; 2014 [Available from: <a href="https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6646">https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6646</a> (accessed Nov 2018).	p. 9

Quality statement 10: Remove safely and replace if needed A patient with a PIVC will have it removed when it is no longer needed, at the first sign of malfunctioning or local site complications, including redness, pain or swelling; or at an interval according to a current, locally endorsed evidence-based guideline. A new PIVC will be inserted only if ongoing peripheral vascular access is necessary.

Australian guidelines, policies and standards	Note
Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019).	pp. 162, 170
NSW Ministry of Health. Peripheral intravenous cannula (PIVC) insertion and post insertion care in adult patients Sydney: NSW Health; 2013. Available from: www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2013_013.pdf (accessed Nov 2018).	pp. 8-10
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ACT Health. Canberra hospital and health services procedure peripheral intravenous cannula, adults and children (not neonates) Canberra: ACT Government; 2015 [Available from: <a href="http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx">http://www.health.act.gov.au/sites/default/files/2018-09/Peripheral%20Intravenous%20Cannula%2C%20Adults%20and%20Children%20%28Not%20neonates%29.docx</a> (accessed Dec 2018).	p. 2
International guidelines and standards	Note
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Royal College of Nursing. Standards for infusion therapy. London: RCN; 2016 [cited Jan 2019]; Available from: <a href="https://www.rcn.org.uk/professional-development/publications/pub-005704">https://www.rcn.org.uk/professional-development/publications/pub-005704</a> (accessed Jan 2018).	pp. 43, 68
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