

Table 13: Practice Notes from the Evidence

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
<p>Type of VAD insertion</p>	<ul style="list-style-type: none"> ■ It is important to consider the type of vascular access procedure when choosing a pain management intervention. Most studies focused on venipuncture or PVAD insertion. Specialized pain management strategies were used for the following: <ul style="list-style-type: none"> □ Arterial catheter insertion: There were three studies that examined using ice or topical anesthetics for arterial blood gas draws, and these were found to be effective pain management strategies (147-149). □ CVAD insertion: One study examined the use of fentanyl for CVAD insertion (131). This type of intervention may not be necessary for less invasive procedures, such as venipuncture or PVAD insertion.
<p>Local anesthetic administration</p>	<ul style="list-style-type: none"> ■ Choice of drug: One systematic review and network meta-analysis found that drug members of the “caine” family (e.g., lidocaine and iontophoretic) were most effective in reducing patient pain when undergoing needle procedures (133). ■ Timing: Three studies reported that topical anesthetic cream should be applied 60 minutes prior to the procedure in order to be most effective (134-136).

RECOMMENDATIONS

KEY INTERVENTION	DETAILS FROM THE EVIDENCE
<p>Distraction</p>	<ul style="list-style-type: none"> ■ The evidence examined various types of distraction techniques (143, 144, 152-155). <ul style="list-style-type: none"> □ Verbal cues were found to have a mixed effect in reducing a person’s pain. These interventions included giving a verbal signal to the person to warn them of the impending needle poke (e.g., “sting” or “sharp scratch”) (143). □ Visual distraction techniques may include having people look through a kaleidoscope (143), distraction cards containing optical illusion pictures (154) or virtual reality devices (154). □ Hypnosis was used in one study, involving classical non-verbal hypnotic tools adapted to the subject and indirect suggestion of comfort by body language (155). □ Aromatherapy, including lavender, eucalyptus or peppermint essential oils inhaled by persons prior to needle insertion, was used in two studies (152, 153). For aromatherapy interventions, health providers should be aware of any allergies prior to administering the aromatherapy oils. □ Breathing techniques may include things such as the “cough trick” or Valsalva maneuver^G (143) or spirometry (144). The Valsalva maneuver is a breathing technique that can be used as a pain management strategy during VAD insertion. It involves a deep inhale, followed by a forceful holding of the breath during which the venous cannulation insertion occurs (143). <ul style="list-style-type: none"> ○ For breathing techniques, health providers should be aware of the person’s health history and status and related contraindications to the Valsalva maneuver or coughing, including respiratory conditions such as COPD and asthma.
<p>Scope of practice considerations</p>	<ul style="list-style-type: none"> ■ Acupressure: If considering acupressure as a pain management intervention, it is important to recognize that health providers would need additional education and training in order to utilize this pain management strategy. ■ Opioids: One study found that the use of intravenous fentanyl given prior to CVAD placement procedure was effective in reducing person’s pain (131). Health providers need to be aware of scope of practice surrounding prescribing or administering opioids. They should consult with the interprofessional team about opioid administration in circumstances where it would be beneficial to advocate for this pain management strategy for the person with a VAD. ■ Hypnosis: One study examined the impact of hypnosis on PVAD insertion, but it is important to note that the health providers received additional certifications in hypnosis prior to delivering the intervention (155).

Supporting Resources

RESOURCE	DESCRIPTION
Canadian Vascular Access Association. Canadian vascular access and infusion therapy guidelines. Pembroke (ON): Pappin Communications; 2019.	<ul style="list-style-type: none"> Canadian Vascular Access Association guideline. Provides details on pain management for VAD insertion. Note: this is a resource for which there is a fee.
Registered Nurses' Association of Ontario (RNAO). Assessment and management of pain: (3rd ed.). Toronto (ON): RNAO; 2013. Available from: https://rnao.ca/bpg/guidelines/assessment-and-management-pain	<ul style="list-style-type: none"> RNAO BPG on pain assessment and management
Registered Nurses' Association of Ontario (RNAO). Long-term care best practices toolkit, 2nd edition: pain assessment and management [Internet]. Toronto (ON): RNAO; 2018. Available from: https://tctoolkit.rnao.ca/clinical-topics/pain-assessment	<ul style="list-style-type: none"> Includes a list of resources for pain assessment and management in long-term care settings. Includes links to various pain scales.
Pain Management: Older Adults. In: Saskatchewan Health Authority [Internet]. [place unknown]: Saskatchewan Health Authority; c2021 [updated 2017 Sep 21]. Available from: https://www.saskatoonhealthregion.ca/locations_services/Services/pain-management/Pages/Seniors.aspx	<ul style="list-style-type: none"> Lists resources for pain management in older adults.
Senior friendly 7 pain toolkit. Version 1 [Internet]. Toronto (ON): Regional Geriatric Program of Toronto; 2018. Available from: https://www.rgptoronto.ca/wp-content/uploads/2018/11/SF7-Toolkit-V1-2018-Pain.pdf	<ul style="list-style-type: none"> Senior Friendly 7 focuses on seven clinical areas that support resilience, independence, and quality of life. Pain toolkit for older adults. Includes pain scales and pain management strategies.