



Kaleidoscope
HUNTER CHILDREN'S HEALTH NETWORK

PROCEDURE

SUBJECT: Implanted Intrathecal Infusaport for continuous pain management of paediatric patients

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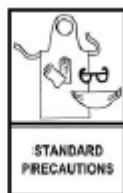
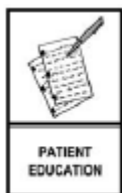
Kaleidoscope GNS Quality Committee

Disclaimer:

It should be noted that this document reflects what is currently regarded as a safe and appropriate approach to care. However, as in any clinical situation there may be factors that cannot be covered by a single set of guidelines, this document should be used as a guide, rather than as a complete authoritative statement of procedures to be followed in respect of each individual presentation. It does not replace the need for the application of clinical judgment to each individual presentation.

S.W.P.

SAFE WORK PRACTICE



SAFE WORK PRACTICE

Risks	Controls
<ul style="list-style-type: none"> • Sharps injury • Exposure to blood and CSF • Manual handlings 	<ul style="list-style-type: none"> • Use needless system (Interlink®) • Use of retractable Gripper® needle • Access to sharps container • Standard precautions – protective eyewear, sterile gloves and apron • Utilise safe manual handling techniques

OUTCOMES:

Patients will receive intrathecal medication safely and as prescribed in an aseptic manner resulting in improved pain management

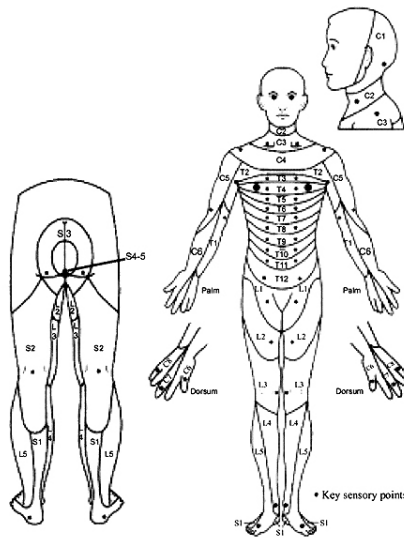
OVERVIEW:

- Intraspinal or intrathecal drug delivery provides an important alternative when systemic opioids are inadequate to provide analgesia without intolerable side effects and the pain is located below the T1 level (see figure 1)
- Pain relief for patients whose pain has not been controlled with more conservative therapies
- Decrease in side effects such as nausea, vomiting, sedation and constipation
- Decrease need for oral analgesia
- Improve physical assessment and increase ability to perform activities of daily living
- Drugs may be used in combination to maximize analgesic effect and to minimize side effects (eg: local anaesthetics and opioids)
- Generic post operative care principles apply and the aftercare should be delivered in a ward where nurses have had education and training to develop skills in the technique of intrathecal infusaport management and have appropriate medical support and equipment.
- Continue to assess and re-assess pain using an appropriate pain score tool

The patient and family/carers will have a consultation with the treating paediatric oncologist and pain specialist/palliative care specialist recommending the procedure to plan and discuss the insertion of the Infusaport (totally implanted device, Figure 2) and the possible risks and side effects including urinary retention and lower limb motor blockade.

They will also discuss further details with the procedural anaesthetist or surgeon implanting the device, and with their anaesthetist.

Figure1.



Adapted from Neurological Classification of Spinal Cord Injury American Spinal Cord Injury Association www.uptodate.com

Figure 2



Infusaports (Totally implanted device)

The patient will have an intrathecal catheter inserted in theatre and the catheter will then be tunneled around to their abdomen and attached to the subcutaneous Infusaport located over a bony prominence.

Key points

- The Gripper needle, 0.2 micron filter & extension tubing will be changed each **7 days** (each **6 days** if there is a 48hour order)
- Liaise with the JHCH Pharmacist regarding the time of delivery of the prefilled medication syringe
- Infection is a possible complication of spinal analgesic therapy, therefore strict asepsis is essential when attending **any task** pertaining to the function of the spinal infusion
- Observe patient for signs and symptoms of intrathecal infection

- Urinary retention may result post insertion of Infusaport and the patient may require a urinary catheter. This and other side effects including lower limb weakness should be discussed pre-operatively
- Examine and palpate the area around and over the Infusaport and catheter tract for erythema, swelling, tenderness or infection that might indicate infection or system leakage.
- Chlorohexidine 0.5% Solution is the recommended strength for skin preparation prior to procedures involving cerebrospinal fluid (CSF) access.
- Local anaesthetic cream is to be applied on the skin over the infusaport site prior to the first access.
- If leakage is suspected or present, the infusaport catheter integrity must be verified before beginning any infusion.
- Refill intervals have to be planned with regard to the stability of the chosen drug in solution

SAFETY ALERT - Dangerous sources of medication error include:

- 1) Inadvertently connecting the intrathecal line to an intravascular access (this may result in inadequate analgesia and systemic local anaesthetic toxicity) – always check that the connection site/route is correct and labeled appropriately. This connection procedure should be checked by a second RN, medical officer, or pharmacist;
- 2) Inadvertently administering systemic drugs into the intrathecal line (this may result in intrathecal toxicity with arachnoiditis and other sequelae) – always ensure that the intrathecal line has no side injection sites (3-way taps, y-connectors) or that these sites are taped over and labeled 'not for injection'. Ensure both drug checkers are present at the bedside for the patient identification and drug administration.

Equipment for SYRINGE CHANGE

- Personal protective equipment- Protective eyewear, sterile gloves and plastic apron
- Thoroughly cleaned dressing trolley
- Sterile drape
- Dressing pack
- Prefilled and labeled medication syringe/s
- Chlorohexidine 0.5% solution
- Syringe driver/s labeled with medication
- 2nd RN (to assist to remove used syringe from syringe driver and clamp lines)

Procedure for SYRINGE CHANGE

1. Ensure the prescribed prefilled S8 medication syringe/s has been delivered to the ward and checked out of the S8 drug cupboard with a second RN.
2. Attend hand hygiene
3. Gather equipment
4. Inform the patient/ carers of the procedure about to be performed.
5. Attend the 5 rights of medication administration- identify known allergies and question the patient regarding allergic reactions
6. Observe the skin over the infusaport for erythema and swelling, assess skin integrity and check for tenderness
7. Attend hand hygiene
8. In the patients room RN 1 open sterile drape and cover the trolley, place dressing pack, S8 medication syringe, back flow valve and chlorohexidine 0.5% onto sterile field
9. Wash hands for 30 seconds
10. DON sterile gloves
11. 2nd RN to clamp the syringe driver giving set/s and remove the previous syringe/s from the syringe driver and hold onto syringe
12. RN 1 with chlorohexidine soaked gauze hold connection between syringe and syringe driver giving set and disconnect and clean with chlorohexidine. Allow to dry
13. Connect the prescribed sterile S8 medication syringe
14. RN 2 place syringe into syringe driver and set rate with second RN 1
15. un-clamp line and recommence the infusion at the prescribed rate
16. Discard disposable equipment and clean trolley
17. Wash hands
18. Sign medication chart and document procedure in the patients medical records

One-hour prior to re-accessing the Infusaport

Test the area over the Infusaport with ice to assess the level of the block. If the patient can feel the same amount of cold from the ice as on another area of skin not in the area of the block they may require local anaesthetic cream or a bolus dose of the intrathecal local anaesthetic if appropriate -check with prescription and/or prescriber prior to *re-accessing*

Equipment for de-accessing/re-accessing & changing giving set, filter & syringe:

- Personal protective equipment- Protective eyewear, sterile gloves x2 and plastic apron
- Thoroughly cleaned dressing trolley
- Sterile drape
- Dressing pack
- Chlorohexidine 0.5% solution
- Gripper Micro® or Gripper Plus® needle 0.9mm (20g) x19mm (3/4inch) **without** a side access bung
- Prefilled medication syringe/s
- 0.2 micron filter
- Syringe driver giving set/s
- Blue Interlink® connector
- Bung
- Back flow valve/s
- Transparent occlusive dressing- Opsite® 3000
- Y-connector(“chooks foot”)
- Syringe driver/s labeled with medication
- White labels for line/s
- Sharps container

Procedure for de-accessing/re-accessing & changing giving set, filter & syringe:

1. Liaise with the play specialist well prior to the procedure if required
2. Ensure the prescribed prefilled S8 medication syringe/s has been delivered to the ward and checked out of the S8 drug cupboard with a second RN.
3. Attend hand hygiene
4. Gather equipment
5. Inform the patient/ carers of the procedure about to be performed.
6. Attend the 5 rights of medication administration- identify known allergies and question the patient regarding allergic reactions
7. Observe the skin over the infusaport for erythema and swelling, assess skin integrity and check for tenderness

8. Attend hand hygiene
9. In the patients room RN 1 open sterile drape and cover the trolley, place dressing pack, S8 medication syringe, back flow valve and chlorhexidine 0.5%, Gripper® ¾ inch, bung, Y-connector, syringe driver giving set/s, blue Interlink® connector, 0.2 micron filter onto sterile field
10. Attend 30 second hand wash and DON 2 pairs of sterile gloves
11. Attach the Gripper®, 0.2 micron filter, bung, blue Interlink® connector , Y-connector (if 2 syringes), syringe driver giving set/s & attach the prefilled medication syringe/s and prime and keep on the sterile field
12. Loosen and remove the infusaport dressing. Stabilise the infusaport septum between the second and third finger. Remove the existing Gripper® needle and discard into the sharps container
13. Remove the top pair of gloves leaving second pair of sterile gloves.
14. Prepare the portal site by cleansing the skin with the chlorhexidine 0.5% solution, by using a circular motion and cleansing from the centre over the port to the outside for a diameter of 15cm x 3 times, allowing the solution to dry before each cleanse.
15. Locate the portal septum by palpating the infusaport with tip of finger. Use a new entry site at each access in order to maintain optimal skin integrity. Insert the Gripper® needle vertically (at a 90⁰ angle) through the skin into the septum until the base plate of the portal chamber is felt. A firm controlled push is required
16. DO NOT aspirate
17. Cover the Gripper® with a clear occlusive dressing ensuring all the line connections are secure and not over tightened.
18. Place syringe into syringe driver and set rate with second RN
19. un-clamp line and recommence the infusion at the prescribed rate
20. Discard disposable equipment and clean trolley
21. Wash hands
22. Sign medication chart and document procedure in the patients medical records
23. Assess that the infusion is functioning correctly by observing for signs of pain relief from the medication/s.
24. Assess pain using appropriate pain assessment tool

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Provisional: Intrathecal drug delivery for the management of pain and spasticity in adults; recommendations for best clinical practice The British Pain Society December 2006.

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APPROVAL:

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KGNS Quality approval