Dermatomes

Dermatomes are areas of skin innervated by a single spinal nerve. They are the best tools for assessing effectiveness of epidurals containing local anaesthetic.

KEY DERMATOMES (LANDMARKS)

L1 – L2    front of thigh
T10        umbilicus
T6         xyphisternum
T4         nipple

REASONS FOR CHECKING DERMATOMES

- Unilateral block (only covering one side)
- High block (above T4)
- Low block (not covering incision/contractions)
- Adequate block but still experiencing pain (requires larger opioid doses)

WHEN TO CHECK DERMATOMES

- Prior to giving a bolus containing local anaesthetic and 20 minutes following the bolus.
- Prior to leaving the recovery room in theatre.
- Prior to increasing an epidural infusion rate containing local anaesthetic and 20 minutes following the increase.
- Poor pain control.
- If you suspect the block may be high.
- Three times in 24 hours (at the beginning of each shift).
- Only when local anaesthetic is used

Note: Intrathecal pethidine can have a local anaesthetic effect.
MANAGEMENT OF FINDINGS

UNILATERAL BLOCK
If this occurs contact the anaesthetist. He/she may pull the epidural catheter back (if heparin administration and coagulation profile allows) or may change to opioid only solution.

HIGH BLOCK
- Cease the epidural infusion.
- Contact the anaesthetist.
- When block subsides, recommence epidural infusion at a decrease rate.
- Follow the emergency procedure if necessary.

LOW BLOCK
- Give an epidural bolus to increase volume in the epidural space
  AND
- Increase the epidural infusion rate to maintain the level of block required

GOOD BLOCK POOR ANALGESIA
- May need to increase opioid concentration
- Consider the woman has opioid tolerance
- Change the mode of analgesia

How to Check Dermatomes
Equipment
Ice Pack
Procedure
- Explain the procedure and purpose to the patient.
- Place an ice pack on an area well away from the possible dermatome cover e.g. face / forearm for her to feel the sensation of ‘cold’.
- Proceed to the women’s torso or legs and move the ice pack up in 5cm intervals until she feels the same cold sensation on her abdomen/chest as experienced on her face.
- Do the same to assess lower levels of epidural block.
- Repeat on opposite side (blocks may be uneven or unilateral).

Documentation
- On the MR 280.
- Indicate that an ice pack was used.
• Document each side separately. Record both the upper and lower limit of the block.
  
  Example:
  - Left: L2 – T8
  - Right: L1 – T10

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**Related WNHS policies, procedures and guidelines**

**Epidural Analgesia**

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4. Medication Safety

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