

Guidance on the administration of Intrathecal Antibiotics

Procedure for sterile instillation of antibiotics via external ventricular drain (EVD), ventricular access device (VAD) or lumbar drain.

- Only Administer pre –prepared syringes made in pharmacy
- Check that the syringe states 'FOR INTRATHECAL USE ONLY'
- Two people certified on the intrathecal register for checking intrathecal medicine dosage should check the name of the patient (using wristband) matched that on the prescription chart and the intrathecal drug syringe and that the dose prescribed matches that on the syringe and that the drug has not expired.
- **SAFETY TIP:**Remember that the biggest risk to the patient is not the intrathecal drug itself but the accidental intrathecal administration of a drug intended for intravenous use. Therefore clear your working area of all other drugs.
- The withdrawal of CSF and administration of intrathecal drugs should be a isovolaemic procedure so the same in and same out, so as not to change the intracranial pressure.

Equipment

Drug Prescription Chart
Dressing Pack
Clinell 2% Chlorhexidine wipe
Red smart site (if not already on)
3 x 2ml syringes
1 needle (for drawing up saline)
0.22 micron filter
1 Universal container
Sterile gloves

Pre prepared syringe containing the intrathecal drug
Sterile 0.9% sodium chloride for injection (remember to check this equally carefully as this is also given intrathecally).

Procedure

1. Use dressing pack on procedure trolley for all equipment
2. Patient should be lying flat. Explain procedure if appropriate and double check nameband
3. Wash hands and apply sterile gloves
4. Locate external ventricular drainage instillation port or the end of the lumbar drain. This should have a red smart site attached. If not then attach one. Clean red smartsite port with a sterile alcohol wipe for 60 seconds and allow to dry
5. Aspirate 2mls of CSF via red smartsite and discard
6. Aspirate a further 2mls CSF and send for microscopy and cell count.
7. Attach intrathecal syringe to 0.22 micron filter and carefully push drug just to end of filter to expel air.
8. Instill the intrathecal drug slowly through the filter over a 1 minute period into the intraventricular drain via smartsite.
9. Flush through the filter with 2 mls of sterile 0.9% sodium chloride
10. Following administration of antibiotic, switch off the EVD or lumbar drain for 30 minutes and inform nurse looking after the patient. Ask nurse to switch drain back on at the required time.
11. Both practitioner administering and second witness (both on intrathecal register) must sign the drug prescription chart.

**Critical Care Guidelines
FOR CRITICAL CARE USE ONLY**

Typical Intrathecal Antibiotic Doses

Vancomycin is 20mg in 2mls 0.9% Sodium Chloride, once daily

Gentamicin is 3mg in 0.6ml undiluted once daily up to a maximum of 5mg in 1 ml

Combined Vancomycin and Gentamicin administration

If the patient requires both vancomycin and gentamicin it is acceptable to give both at the same procedure.

In this case take 2 mls CSF and discard then take 4 mls for microbiology (6mls removed in total)

Give gentamicin (0.6mls) then flush with 2 mls 0.9% sodium chloride for injection

Give vancomycin (2mls) then flush with 2mls with 0.9% sodium chloride for injection.

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