Central Line Blockage and Urokinase Infusion

Blockages

Lines may be:

- completely blocked – unable to flush or withdraw
- partially blocked – flushes but cannot bleed back

In both cases initially try a Urokinase lock.

Urokinase lock

5000iu Urokinase diluted in 3ml of 0.9% sodium chloride (normal saline). Instill gently into the line and lock under pressure. In “complete” blocked lines try to instill as much Urokinase as possible. Withdraw after 1 hour and repeat. This procedure can be repeated several times or the lock left in situ for at least 4 hours. Urokinase should be withdrawn if possible before using the line.

If the above does not immediately solve the situation:

1. Chest x-ray to check position of line.
2. Linogram to establish if end of line clot is an intra luminal clot. If the line is correctly placed but there is a clot in situ – try Urokinase infusion (see below).
3. Check basline clotting from diagnosis; PT, APPT (and fibrinogen IF APTT prolonged)
4. Give Urokinase infusion over 24 hours – put 3600iu/kg Urokinase into 120ml 0.9% sodium chloride (normal saline) and infuse at a rate of 5ml/hour i.e. 150iu/kg/hour.

5. Only repeat clotting if clotting abnormal at outset or oozing occurs during infusion.

6. Repeat Linogram after 24 hours: if no blood bleeding back or no change, consider a second 24 hour infusion.

7. If patency is established and clot it no longer present consider repeat Linogram, then; consider starting thromboprophylaxis or daily hep flushes.

**Review**

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<td>Dr Sheila Lane, Paed Oncology Consultant</td>
<td>New doc</td>
<td>June 2010</td>
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<td>Process update / additions</td>
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<td>Becky Hester, Paed ANP</td>
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