1. Hypotension/hypovolaemia during treatment

**ACTION**

- Ensure arterial pump is set at 400ml/min.
- Clamp the bloodline between patient and normal saline infusion connection so that blood is not drawn from the patient when the pump starts. Run the normal saline 3 times (10 seconds each run for 30 seconds in total) using the arterial pump. This will ensure that you infuse exactly 200ml of normal saline.
- Normal saline can also be infused by deselecting S/N mode, taking blood line out of the venous blood pump, clamping between patient and normal saline infusion connection and running normal saline back to the patient using the arterial pump as you would using double needle dialysis.

2. No heparin dialysis requiring normal saline flushes

**ACTION**

- Ensure arterial pump is set at 400ml/min.
- Establish length of time (in seconds) that the arterial pump runs for before venous pump takes over. (Usually around 10 seconds).
- Clamp the bloodline between patient and normal saline infusion connection so that blood is not drawn from the patient when the pump starts. Run the normal saline 3 times (10 seconds each run for 30 seconds in total) using the arterial pump. This will ensure that you infuse exactly 200ml of normal saline.

3. Disruption to treatment requiring recirculation.

**ACTION**

- Stop pump and clamp both arterial and venous lines. Deselect S/N mode and take the venous pump segment out of the pump. Clamp system pressure transducer and recirculate.

4. Discontinuation of dialysis due to miscellaneous problems that also occur during double needle dialysis. Eg cardiac or respiratory arrest, emboli.....

**ACTION**

- Disconnect patient (see disconnection procedure) and follow ward policies and protocols.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible causes</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expansion chamber too full</td>
<td>- Leak at the connection of system pressure transducer. Pressure recorder no longer functioning due to contact with blood. Level in chambers has been incorrectly affected/filled manually. Kink or clotting venous line. S/N pump inserted but machine not in S/N mode.</td>
<td>- Check all connections to the machine and patient. - Change transducer. - Correct blood level in chambers. - Check and correct.</td>
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<tr>
<td>2. Blood pump stop alarm “high arterial revolution cycle”</td>
<td>- The arterial pump has stopped for over 15 seconds, as it was not possible to pump the stroke volume within the period. Ratio of stroke volume to BFR is too high. Pumping or drainage problem.</td>
<td>- Decrease stoke volume. - Adjust BFR to stroke volume selected. - Check tubes and drain pipes.</td>
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<tr>
<td>3. TMP rises sharply during treatment.</td>
<td>- UF factor/coefficient of the dialyser is too small in relation to UF rate. UF rate is too high in relation to BFR and stroke volume. Administration of heparin is too low. Clot in circuit. Massive recirculation due to drainage obstacle or access stenosis (usually in conjunction with high venous return pressure).</td>
<td>- Use appropriate dialyser. - Select appropriate UF rate. - Adjust heparin setting +/- flushes. - Check lines for clots. - Check patient for access and drainage pipes.</td>
</tr>
<tr>
<td>4. High system pressure &gt;300</td>
<td>- A clamp or a kink in the blood lines. System pressure transducer no longer functioning due to contact with blood.</td>
<td>- Check lines for kinks and clamps. - Release system pressure transducer by clamping, disconnecting and then reconnecting it to the machine or change the transducer as required.</td>
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