DESCRIPTION

TaurolockHep100® must not be flushed.

The information contained below should be read in conjunction with the associated guideline: Prophylactic lock for central venous access devices.

- Taurolock Hep 100® contains Taurolidine 1%, sodium citrate 4% and heparin100units/mL and is an antimicrobial lock solution for central venous access devices (CVAD).
- Taurolidine has a broad spectrum of antimicrobial activity against gram-positive and gram-negative bacteria as well as fungi. It also has anti-adherence properties reducing biofilm formation.(1)
- Sodium citrate and heparin are included for their anticoagulant properties. Sodium citrate removes calcium from the clotting cascade,(2) Heparin inactivates clotting factors IIa and Xa by binding to antithrombin III.(3)

INDICATIONS AND RESTRICTIONS

IV: Monitored (orange) lock solution

- Where use is consistent with a standard approved indication, this must be communicated to ChAMP by documenting that indication on all prescriptions (inpatient and outpatient).
- The ChAMP team will review if ongoing therapy is required and/or if the order does not meet ChAMP Standard Indications. If use is not for a standard approved indication, phone approval must be obtained from ChAMP before prescription.
- Prophylaxis against central line related bloodstream infections (CLABSI) in children who have a CVAD.
- Prophylaxis against biological occlusion in the CVAD.

CONTRAINDICATIONS

TaurolockHep100® is only indicated for locking central venous access devices. It should not be used for peripheral lines or mid-lines.

- TaurolockHep100® is contraindicated in patients with an allergy to any component of the preparation (taurolidine, sodium citrate, heparin). (4)
• TaurolockHep100® should not be flushed into circulation and must be aspirated from the line after the required dwell time due to the risk of anticoagulation.

• In the event of line occlusion please discuss with the CVAD nurse/consultant and the treating team.

PRECAUTIONS

Check ampoules for any precipitation prior to use. TaurolockHep100® contains Heparin, please see Heparin Monograph.

FORMULATIONS

Available at PCH:

• Tauroidine 1% with sodium citrate 4% and heparin 100units/mL ampoule (available as a 3mL ampoule). Other formulations available:

• Tauroidine 1% with sodium citrate 4%.

• Tauroidine 1% with sodium citrate 4% and heparin 500units/mL.

• Tauroidine 1% with sodium citrate 4% and urokinase 25,000 international units.

DOSAGE

Lock therapy:

• The volume to be administered is determined by the fill volume of the CVAD (see below).

• The required volume is to be instilled into the device for a minimum of 2 hours with administration only occurring once in 24 hours. Please discuss the duration of instillation with the ID team.

• In the event that line access is required, the TaurolockHep100® should be aspirated from the line, flushed with sodium chloride 0.9% and may then be used for administration of medications or other IV fluids as required.

<table>
<thead>
<tr>
<th>Device</th>
<th>Volume of TaurolockHep100® to prescribe per lumen</th>
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</thead>
<tbody>
<tr>
<td>Tunnelled cuffed central venous access device e.g. Broviac, Hickmans or Infusaport</td>
<td>2mL</td>
</tr>
<tr>
<td>Peripherally inserted central catheter (PICC)</td>
<td>1mL</td>
</tr>
</tbody>
</table>

The lock can be left in situ for up to 7 days. After this time, the line should be aspirated and flushed with sodium chloride 0.9% prior to re-locking with TaurolockHep100® or using the line.

Neonates:

Not routinely used in neonates, contact Infectious Disease or Clinical Microbiology consultants for advice.
<table>
<thead>
<tr>
<th><strong>DOSAGE ADJUSTMENT</strong></th>
<th>No dosage adjustment is required in renal or hepatic dysfunction. However the fill volume of the device being locked must be strictly adhered to.(^{(2)})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RECONSTITUTION</strong></td>
<td>Not applicable.</td>
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</table>
| **ADMINISTRATION**   | TaurolockHep100® is only to be used as a lock solution for CVADs. It is not to be used for locking peripheral lines or mid lines.  
1. Determine the fill volume of the device to be locked (see above). Further information is available in the guideline Prophylactic lock for central venous access devices.  
2. The device should be flushed with 10mL of sodium chloride 0.9%.  
3. Instil the required volume of TaurolockHep100® into the access device. This should be done slowly at a rate of no more than 1mL per second in children and no more than 1mL per 5 seconds in infants.\(^{(2)}\)  
4. Discard any excess solution remaining in the ampoule.  
5. Leave the solution in situ for a minimum of 2 hours (with administration only occurring once in 24 hours) and for a maximum of 7 days. |
| **MONITORING**       | Monitor for line patency.                                                                                                                                                                         |
| **ADVERSE EFFECTS**  | **Common:** metallic or unusual taste (particularly if instilled at a rate faster than recommended).  
**Rare:** line occlusion, hypocalcaemia symptoms (if instilled at a rate faster than recommended). |
| **COMPATIBLE FLUIDS**| Sodium chloride 0.9%.                                                                                                                                                                               |
| **INTERACTIONS**     | • There is minimal information regarding interactions with TaurolockHep100®.  
• It should not be mixed with any other fluids prior to use as a lock and all lumens should be flushed well with sodium chloride 0.9% prior to instillation of TaurolockHep100®. |
| **COMMENTS**         |                                                                                                                                                                                                  |
| **MANUFACTURER SAFETY DATA SHEET (SDS)** | To access to the Manufacturer SDS for this product, use the following link to ChemAlert. |

**Please note: The information contained in this guideline is to assist with the preparation and administration of taurolidine 1% with sodium citrate 4% and heparin100units/mL. Any variations to the doses recommended should be clarified with the prescriber prior to administration**
Related internal policies, procedures and guidelines

Antimicrobial Stewardship Policy

TauroidineHep100 prophylactic lock for central venous access devices

Central Venous Access Device (CVAD) and Midline Management

References


