

## What To Do With A Completely Blocked PICC – Using TauroLock U25000

**Only to be used by staff competent with IV therapy, central venous access devices and trained in this procedure.**

### **Why do PICCs get blocked?**

Usually because a small amount of blood has clotted in the line

### **How can we prevent this?**

By using a good push-pause flushing technique and positive pressure disconnection or positive pressure clamping sequence

### **How can we get the PICC working again?**

By using a thrombolytic: see below

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### **What is a thrombolytic?**

A thrombolytic is a clot-busting drug which can break up a blood clot (thrombus). **Urokinase** based solutions are the most common thrombolytics used for unblocking central venous catheters (CVC)

**NOTE:** Heparin and Hepsal are NOT thrombolytic drugs: they can INHIBIT thrombus formation only

TauroLock U25000 (5ml vial) contains: taurolidine, citrate and urokinase 25,000 units in 5ml

*(TauroLock U25000 is free from Latex)*

### **How is TauroLock U25000 prescribed?**

**On the 'ONCE ONLY' side of the prescription chart prescribe:**

**"TauroLock U25000 Dose: 2ml lock *per catheter lumen*, for occluded PICC"**

**NB:** this is for each blocked lumen. If it is a dual lumen PICC, this will need to be prescribed **twice**.

TauroLock U25000 must be prescribed before it is administered

### **How do I use TauroLock U25000?**

1. Arrange **prescription** and for TauroLock U25000 to be dispensed from pharmacy

(TauroLock U25000 will be dispensed as 25,000 units of powder in a single vial with its own corresponding 5ml ampoule of solution for reconstitution)

2. TauroLock U25000 Lock Preparation:

- (i) Open the box of TauroLock U25000 and remove the vial of urokinase and the 5ml ampoule of TauroLock solution
- (ii) Open the ampoule of TauroLock solution and withdraw the contents (5 mL) into a 10 mL syringe
- (iii) Introduce the TauroLock U25000 solution into the vial to reconstitute the urokinase to give a concentration of 25,000 units in 5 mL = 5,000 units in 1 ml
- (iv) Gently swirl the vial until the powder is fully dissolved
- (v) Draw up 2ml of reconstituted solution from the vial into a 10ml syringe. Repeat for each catheter lumen

(vi) The reconstituted solution should be used immediately

### 3. TauroLock U25000 Instillation of 2ml per catheter lumen

(i) Using a sterile dressing pack, sterile gloves and technique, clamp the PICC (if there is a clamp) and remove any bungs or extension sets from the end of the PICC

(ii) Attach a 3-way-tap primed with Sodium Chloride 0.9% to the end of the PICC (see diagram below)

(iii) Attach an empty 10 ml syringe to the end of the 3-way tap, in a straight line with the PICC

(iv) Attach the 10ml syringe containing the 2ml TauroLock U25000 to the 3-way tap, at a 90° angle to the PICC

(v) Open line clamp (if there is one)

(vi) Open 3-way tap to the empty syringe and blocked PICC and draw back on the plunger of the syringe as far as it will go

(vii) Maintaining suction on the plunger of the 10ml syringe, turn the 3-way tap so that it is closed to the empty syringe but open to the PICC and the syringe containing TauroLock U25000, which will be sucked into the lumen of the PICC

(viii) Repeat as necessary until all the TauroLock U25000 has been instilled into the lumen

(ix) Cap the PICC with a red bung and label PICC with the 2ml **TauroLock U25000 in lumen. Do not use Date and time** DO NOT re-CLAMP CATHETER

(x) Repeat as above for second lumen

(xi) Leave the 2ml of TauroLock U25000 in situ for minimum of 60 minutes

(xii) Withdraw/aspirate the 2ml of TauroLock U25000 from lumen and assess for blood return

(xiii) If PICC is able to aspirate blood and be flushed with no resistance, then flush with 2 x 10ml sodium chloride 0.9% using a push-pause technique and lock with positive pressure

(xiv) If unable to aspirate lock solution discuss with medical staff the need to flush TauroLock U25000 into the patient. If flushing TauroLock U25000 into patient do this slowly over 2-5 seconds and monitor patient for bleeding over the next hour

4. If procedure fails to restore full function, consider whether lipids/drug precipitation could be causing the blockage

5. If still blocked refer to Vascular Access Specialist Practitioners on x 28697 (MGH) or x 35061 (TWH)

