

July 2015

## Continuous Infusion Hang Time Grid Needleless Cap/tubing/Bag Change Tip Sheet Heparin/Saline Lock Grid

Updates to the Continuous Infusion Hang Time Grid and the Heparin/Saline Lock grid have been done to facilitate improved application of current vascular access evidence-based best practices into bedside care. The following changes have been approved:

- Effective **Aug 11<sup>th</sup>, 2015**, the Continuous Infusion Hang Time Grid will no longer have a 72 hour change time category. All current 72 hour change medications have been moved to the 48 hour time frame. This change is designed to decrease the complexity of managing multiple continuous tubing change times and manifold changes (trifuse/bifuse set ups) of our critically ill patients. The current Cap & Tubing change Quick Sheet is being discontinued. This is being replaced with the **Needleless Cap/Tubing/Bag Change Tip Sheet** and will include the Continuous Hang Time Grid within this document. Any medication not noted on the grid will be considered a 96 hour change medication. The following principles apply when managing complex infusion set ups:
  - Needleless caps and manifolds are considered the “end” of the IV line and should be changed every 96 hours.
  - Needleless caps and manifolds should be changed at the same time as every 96 hour IV bag and tubing changes.
  - For IV solutions requiring a change more frequently than every 96 hours, change bag & tubing per identified time frame, up to the needleless cap of the manifold.
  - For complex set ups involving critical medication infusions, a needleless cap is not required between the IV line and manifold. The manifold needleless caps suffice as the protective closed cap of the central line.
  - Preview the full document (see pages 3-4).

- The title of the Heparin Lock/Saline Flush grid has been changed to **Heparin Saline Lock** Grid. The removal of the term **flush** is to help clarify the use of normal saline as a flush for medication or blood clearance versus use of normal saline to maintain patency of a line during intermittent use. When normal saline is used to maintain patency it is considered a “Lock” and should be administered by hand using the pause-push-pause technique. A saline flush used to clear a medication or blood from the line may not also be considered as the “Saline Lock”, the additional saline lock volume must also be administered to maintain line patency. This change does not affect the current EMR ordering processes. See the updated Heparin Saline Lock Grid on the Nurse Web @ <http://khan.childrensmn.org/Web/CPDP/TablesGrids/190380.pdf>.

For questions regarding these changes please contact your unit Clinical Educator, CPS/CNS or Clinical Education Specialist.

## Needleless Cap/Tubing/Bag Change Tip Sheet

### **IV Bag & Tubing Changes**

Change continuous IV fluids and tubing no more frequently than every 96 hours unless otherwise indicated by the Continuous Infusion Hang Time Grid.

### **Tubing Change - Hanging New IV Solution**

Change tubing every 96 hours unless clinical consequences are anticipated. Examples for changing tubing with bag change prior to 96 hours:

- New concentration of vasopressors
- Low rate of infusion that would delay delivery of new IV fluids
- Incompatibility of new IV solution with previously infusing solution
- Expiration of tubing prior to expiration of IV solution.

Examples of when the same IV tubing may be used: replacement of empty IV fluid bag, change from one maintenance fluid to another (lactated ringers to D5).

### **Needleless Cap and/or Manifold (e.g bifuse, trifuse, or 6-fuse) Change**

- Needleless caps and manifolds are considered the “end” of the IV line and should be changed every 96 hours.
- Needleless caps and manifolds should be changed at the same time as every 96 hour IV bag and tubing changes.
- For IV solutions requiring a change more frequently than every 96 hours, change bag & tubing per identified time frame, up to the needleless cap of the manifold.
- For complex set ups involving critical medication infusions, a needleless cap is not required between the IV line and manifold. The manifold needleless caps suffice as the protective closed cap of the central line.

### **Drawing or Administering Blood Through a Needleless Cap**

- Change needleless cap every 96 hours.
- Change cap sooner if it cannot be cleared of blood after appropriate volume of saline flush has been used. Use of the push –release-- push method facilitates clearing with minimal volume of flush.
- For fluid sensitive patients this could mean that the cap is changed after each blood draw or infusion.

### **Intermittent Medication Tubing**

1. Change closed medline system for intermittent medications every 96 hours.
2. Change medication tubing (small bore and secondary set ups) for intermittent medications every 24 hours. Change every 24 hours regardless if needleless cap is placed at the end of the tubing between tubing and medication syringe (medication adheres to tubing, requiring change for medication administration safety).

**Cap Change – Line Not In Use:** Change every 7 days.

### **Reminder:**

- Label manifolds with "date changed" separately from IV tubing “date changed” labels.
- Central line needleless cap changes are a sterile procedure.
- Manifold and tubing changes on central lines are a sterile procedure if there is no needleless cap between the end of the IV line and the manifold.
- Document in central line care details

See vascular access policy # 317 for full details.

### Continuous Infusion Drip Hang Times less than 96 hours

Solution	Change Bag/Syringe/Tubing
Bumetanide (Bumex <sup>®</sup> ) – in D5W EPINEPHrine Labetalol Pancuronium, Rocuronium (undiluted), Vecuronium Hydrocortisone	Every 48 hours
Alteplase (tPA) BAD (diphenhydrAMINE, LORazepam, dexamethasone) Chlorothiazide (Diuril <sup>®</sup> ) – in NS Insulin Isoproterenol Furosemide Hyperalimentation with or without lipids Levothyroxine Naloxone NiCARDipine (Children’s compounded bag; light protect) Pentobarbital Procainamide Rocuronium (diluted) Vasopressin Any solution to which an addition is made to a bag/bottle/syringe while on the unit	Every 24 hours
Propofol	<ul style="list-style-type: none"> <li>• Change syringe &amp; tubing every 6 hours</li> <li>• Change bag &amp; tubing every 12 hours</li> </ul>

Last Updated: July 27, 2015