UC DAVIS HEALTH | Center for Professional Practice of Nursing

SynchroMed Intrathecal Pump Refill – DAHS-NSCSMIPR

Name:	**Employee ID #:**
Unit:	**Title:**

PERFORMANCE CRITERIA - Unless otherwise specified all skills will be demonstrated in accordance with the appropriate UC Davis Health policy.

These skills will be considered complete when all below performance criteria are completed and have been scanned and emailed to: hs-cppn@ucdavis.edu

	Date Completed (or N/A)	Verifier Initials
References: 1. UC Davis Health Policy 13045: SynchroMed Intrathecal Pump Refill 2. Elsevier skills "Sterile Gloving-CE" 3. Medtronic (2018). Refill kit 8551 for use with Medtronic implantable programmable infusion pumps- instructions for use		
Verify medication syringe provided by pharmacy against physician order and verify 8 medication rights		
Verification of provider's orders via electronic medical record (EMR). If any dose or programming changes are needed based on RN assessment, contact provider. Provider shall assess and provide written orders and documentation for changes before reprogramming.		
Perform telemetry with Synchromed Programmer to determine the volume of fluid remaining in the drug reservoir. Calculations are based on previous refill programming. Note the remaining drug in the reservoir for verification of waste.		
Perform hand hygiene		
Explain sterile procedure to patient; obtain informed consent per Administrative Policy 1411:Consent to Operation, Procedures, Blood Transfusion and Administration of Anesthetics. Perform and document procedural pause per Clinical Policy 4019: Universal Protocol.		
Place patient in a supine position, ensuring patient comfort. Assess pump site for signs and symptoms of swelling, redness or tenderness; notify physician if present. Palpate pump to establish orientation and landmarks. Refer to physician and stop procedure if unable to palpate pump or grasp pump firmly		
Have a clean, clear workspace for sterile supplies. Perform hand hygiene and don cap and surgical mask. Assemble the required supplies per Clinical Policy 13045 SynchroMed Intrathecal Pump Refill		
Using non-sterile gloves, prep skin with 3 sterile alcohol prep pads or swabsticks. Once dry, using aseptic technique, prep skin with one chlorhexidine swabstick or 3 povidone-iodine swabsticks. Let dry while opening packages and sterile gloves.		
Open refill kit and sterile glove packages.		
Place fenestrated drape, exposing pump site. Locate center of pump and access port.		

UCDAVIS HEALTH | Center for Professional Practice of Nursing

SynchroMed Intrathecal Pump Refill – DAHS-NSCSMIPR **Page 2 of 3**	
Name:	**Employee ID #:**
Unit:	**Title:**
PERFORMANCE CRITERIA - Unless otherwise specified all skills will be demonstrated in accordance with the appropriate UC Davis Health policy.	
These skills will be considered complete when all below performance criteria are completed and have been scanned and emailed to: hs-cppn@ucdavis.edu	

	Date Completed (or N/A)	Verifier Initials
Place template over pump, aligning template edges with perimeter edges of pump. With empty syringe attached to clamped tubing, insert Huber needle through the template's center hole. Continue penetration until the needle stops at the bottom of the pump's septum. The titanium needle stop under the septum will damage the needle tip if excessive force is used. Open the clamp. Stop procedure and refer to provider if needle stop cannot be reached with longest (2.0) Huber needle provided in SynchroMed refill kit. Consider fluoroscopy or ultrasound to assess pump access port or needle placement if unsure. Ultrasound may also assist in filling the reservoir with characteristic columnar flow vs speckled flow pattern to avoid pocket fill.		
Withdraw the fluid/medication residual from the reservoir using gentle, negative pressure. Empty the reservoir completely (i.e., until air bubbles are present in the extension tubing). The amount withdrawn should approximately equal the previously noted reservoir volume from the current pump status readout from the programmer. Approximately 0.5 mL of fluid will remain in the extension tubing. If there is greater than 1.5 mL discrepancy between calculated and measured pump residual volumes, RN will consult provider. If fluid is a controlled substance, waste drug according to Administrative Policy 1630: Pharmaceutical Waste Management. If withdrawn fluid is discolored or cloudy, place the aspirate into a sterile tube, label specimen as intrathecal pump aspirate and obtain an order for culture.		
Close the clamp and remove the 20 mL syringe. Note: The needle and tubing must remain in place		
Check syringe provided by pharmacy against physician order and verify 8 medication rights		
Attach the new medication syringe to the clamped extension tubing set. Verify needle placement to ensure that needle is accurately placed at the bottom of the pump		
Open the clamp and slowly inject the fluid into the reservoir. Intermittently aspirate per Medtronic manual to assure needle tip is in the reservoir. Depending on pump volume, 20 mL pumps should be filled to a maximum 18 mL; 40 mL pumps can be filled to a maximum of 40 mL. Pumps should be observed to initially fill by vacuum. Do not force the injection. Excessive pressure caused by a full reservoir or too rapid a fill rate may cause damage to the pump or affect infusion accuracy		
2 syringes will be provided for a 40 mL refill. Close clamp once 20 mL syringe is injected. Replace syringe with the second 20 mL syringe.		
Once the total medication has been injected, close the tubing clamp and carefully remove the needle from the pump septum		
Apply pressure to needle site with 4x4 gauze pad for one minute		
Remove cleansing agent from skin using soap and water		
Ensure bleeding has stopped; apply adhesive bandage if necessary		

UC DAVIS HEALTH | Center for Professional Practice of Nursing

SynchroMed Intrathecal Pump Refill – DAHS-NSCSMIPR **Page 3 of 3**	
Name:	**Employee ID #:**
Unit:	**Title:**
PERFORMANCE CRITERIA - Unless otherwise specified all skills will be demonstrated in accordance with the appropriate UC Davis Health policy.	
These skills will be considered complete when all below performance criteria are completed and have been scanned and emailed to: hs-cppn@ucdavis.edu	

	Date Completed (or N/A)	Verifier Initials
Dispose of all components of refill kit into appropriate waste containers. If fluid is a controlled substance, waste drug according to Administrative Policy 1630: Pharmaceutical Waste Management. If withdrawn fluid is discolored or cloudy, place the aspirate into a sterile tube, label specimen as intrathecal pump aspirate and obtain an order for culture.		
Using Medtronic Synchromed Programmer, analyze and reprogram appropriate parameters per order. Physician will review the reprogram parameters prior to update. Affix patient information sticker to the final programmed printouts. One copy goes to the patient and one copy is to be scanned into the electronic medical record		
Use EMR After Visit Summary (AVS) to outline home cares and education needed for patient and family: a. Purpose and use of the Synchromed infusion pump. b. Possible side effects to watch for with any medication, potential problems and how to deal with them at home. c. Patient should concur with pump alarm date and next refill date d. Patient to keep copy of final programmed settings with them at all times.		
Documentation of the procedure should include: a. Anticipated reservoir fluid volume calculated by the Synchromed programmer b. Actual reservoir fluid aspirated from the pump c. Medications, dosages, concentrations, or changes in parameters, i.e., priming bolus or bridge bolus given d. Any problems with any portion of the procedure		

PRECEPTOR SIGNATURE		
Signature and Printed Name of Preceptor or other verified personnel who have initialed on this form:		
Initial:	Print Name:	Signature:

PRECEPTEE STATEMENT AND SIGNATURE:

I have read and understand the appropriate UC Davis Health policies and/or equipment operations manual; I have demonstrated the ability to perform the verified skills as noted

Printed Name	**Signature**	**Date**

Scan Pages 1, 2, and 3 and email to: hs-cppn@ucdavis.edu