ACUTE PAIN SERVICE REGISTERED NURSE

• The APS nurse is responsible for the weekly daytime activity, Monday through to Friday, of the Acute Pain Service under the direction of the assigned anesthesiologist for that day. This includes the following:
  o Morning epidural rounds
  o Consult Visits; re-assessment and follow up re-assessment visits of APS consult patients
  o Pre-Operative Assessments for patients who consults are initiated via Preoperative assessment clinic. Anesthetic and Pain management plans for such patients are reviewed with the assigned anesthesiologist for that case.
  o Sign out Epidural Rounds
  o Educational support for area of expertise to Nursing and Hospital Programs
  o Correspondence with other facilities for ongoing patient care
  o Other Support to the department of anesthesia as assigned.

• The APS nurse will receive report from APS on call physician regarding any overnight calls to the service and patient care issues which arose during on call hours. Contact is usually made in the AM either in person or via phone/pager.

• Initial AM APS rounds are made with the assigned attending Anesthesiologist for that day. A review of current and applicable laboratory data for APS patients is done. The following Patients are seen during these rounds:
  o All patients who have a indwelling epidural catheter (L& D excluded)
  o Any complex Patient Controlled Analgesia patient who the APS service has been consulted to manage.

• Follow-up APS rounds are made throughout the day at the discretion of the APS nurse for:
  o All patients with an indwelling epidural catheter will be visit subsequently at least once more through out the day.
  o All consult patients who may require follow up assessment, evaluation and recommendations.

• At anytime during the day the APS nurse will liaises with the attending anesthesiologist to review new orders, order changes and to review consults.

• Orders for patients are placed by the APS nurse under either assigned anesthetist for that day or for the anesthetist on record. Orders are conferred and indicated in the EPR as either verbal, telephone or protocol.

• The APS nurse prior to the end of shift shall:
  o Give either a written (Handover Sheet) or verbal report to the APS anesthesiologist “on call”. The Current Handover sheet is also attached to the APS BINDER
o Make arrangements to communicate in a timely fashion if “on call” anesthesiologist is unavailable.
PAIN SERVICE DOCUMENTATION

NEURAXIAL ANALGESIA

Original documentation for neuraxial technique and procedure should be made on the anesthetic record.

REGIONAL ANALGESIA FOLLOW-UP SHEET

For all epidural placements for post surgical analgesia the “Regional Analgesia Follow-Up Sheet” needs to be completed. (See appendix)
  o In addition to the required fields’ documentation regarding DVT prophylaxis, insertion complications, and product lot number should be made as well.
  o Completed Follow-up form needs to be placed in the APS tray in PARR (for APS RN’s to collect) This is imperative otherwise APS may be uninformed regarding indwelling post surgical epidural
  o Notification by anesthetist to APS personal should be made upon placement of epidural for post surgical patient.

EPIDURAL ROUND documentation

Daily Regional analgesia follow-up rounds (Epidural Rounds) are documented on the Regional analgesia follow-up Sheet. Notations should be made on
  o Ward location
  o DATE & time
  o Infusion rate
  o VAS rest & movement
  o Somnolence scale (1 through 3, S= sleep)
  o Respiratory rate and or Oxygen saturation
  o Motor Block (Bromage Scale: 0-3)
  o Site inspection (D=Dry, E= Erythema, P=Purulent, B=Ecchymosis, NE= Not examined)
  o Adverse Effects (N=Nausea, P=Pruritus, H=hypotensive requiring fluid, S= sedation, T=Numbness in extremities
  o As well as pertinent comments

The Follow-up sheet filed in the appropriate ward section of the APS binder which resides in the Anesthesia office so that it remains available to those on APS call.

APS CONSULT DOCUMENTATION

The acute pain service receives and answers requests for consultation for all IN PATIENTS admitted to the hospital. All consults need to be filled out in the EPR by selecting the “documentation icon” and selecting “Consult APS”. Attention needs to be made to impression and recommendations. If further follow up and re-assessment is required by the APS place a
printed copy of the consult in the appropriate ward section of the APS Binder and indicate as well on the HANDOVER SHEET attached. A verbal report to oncoming staff should also be made if required.

Follow-up documentation on APS consult patients should primarily be made in the EPR in the IPN. Relevant IPN may be printed and place in the APS binder in the appropriated sections.
APS HANDOVER SHEET

FUNCTION

The “APS HANDOVER SHEET” is a form which is attached to the APS BINDER. Its importance cannot be understated in that it is an important link to passing on key information regarding patients for which the pain service is following. It is primarily utilized for patients who have epidural for post surgical analgesia however

The following information per actively followed patient is relayed:

- Patient location
- Allergies
- Procedure with date of procedure
- Epidural concentration with rate or PCA settings
- DVT prophylaxis therapy
- Applicable Laboratory data
- Comments

See Appendix for example

Electronic transfer of this information is acceptable to enhance APS handover however WHRA and P.H.I.A standards must be maintained. (Patient identifiers must be removed if electronic transfer occurs via “open source” or unsecure transfer. Electronic transfer within secure WRHA domain and network is permissible without removal of patient identifiers)
ST. BONIFCAE PROCEDURES & POLICIES REGARDING NEUROAXIAL
ANALGESIA

The following policies can be accessed via both online as well as in the St. Boniface Hospital General Policy and Procedure Reference Manual

- Policy # 110.400.E-02
  - Epidural or intrathecal analgesia: infection surveillance and prevention and in long term catheters.
  - See Appendix:
    - EPIDURAL OR INTRATHecal ANALGESIA VIA CONTINUOUS INFUSION WITH OR WITHOUT PATIENT CONTROLLED ANALGESIA (PCEA): INFECTION SURVEILLANCE AND PREVENTION IN LONG-TERM CATHETERS
  - Online Reference:

- Policy #110.400.I.07.01
  - Epidural or intrathecal analgesia: initiation and management.
  - See Appendix:
    - EPIDURAL OR INTRATHecal ANALGESIA VIA CONTINUOUS INFUSION WITH OR WITHOUT PATIENT CONTROLLED EPIDURAL ANALGESIA (PCEA): INITIATION AND MANAGEMENT
  - Online reference:
    - http://intranet.sbgh.mb.ca/ManualsNursing/files/110.400.I.07.01.pdf

- Policy #110.400.I.07.02
  - Epidural catheter: removal of.
  - See Appendix:
    - EPIDURAL CATHETER: REMOVAL OF
  - Online reference:
DISCONTINUATION AND REMOVAL OF EPIDURAL CATHETERS

- Discontinuation and removal of indwelling epidural catheter is directed solely by the ACUTE PAIN SERVICE. No other physicians or physician designates can order the discontinuation and removal of epidural catheters.

- Discontinuation and removal of epidural is ordered in the EPR using a direct written order by selecting “MD to RN communication”
  - Order words should include the following:
    - **Discontinuation of epidural catheter as per protocol.** This ensures that the responsible nurse may remove the epidural catheter if the policy requirement have been met:
      - **UNFRACTIONATED HEPARIN (UFH)**
        - INR of that day less than or equal to 1.3
        - PTT of that day within 26 to 36 seconds
        - Platelet count greater than 100X10^9/L
        - The patient has NOT received subcutaneous heparin in the last 4 HOURS
        - The Patient has NOT received intravenous heparin in the last 6 HOURS.
        - NOTE: Heparin administration must delayed for a minimum of 1 HOUR after catheter removal
      - **LOW MOLECULAR WEIGHT HEPARIN (LMWH) SINGLE DAILY DOSE**
        - INR of that day less than or equal to 1.3
        - PTT of that day within 26 to 36 seconds
        - Platelet count greater than 100X10^9/L
        - The patient has NOT received LMWH in the last 24 hours
        - NOTE: LMWH administration must be delayed for a minimum of 4 HOURS after catheter removal
        - See appendix “VTE Prophylaxis with Daltepin…”
    - **Discontinuation of epidural catheter.** The APS physician may at their discretion based on clinical presentation of the patient order the catheter to be removed without having met all of the protocol criteria. The GDRN is still able to remove the epidural catheter in such situations. Such is the case if:
      - Bases on clinical presentation of the patient, recent coagulation profile is acceptable
      - The catheter is ordered removed on a “time specific” which is acceptable eg. LMWH 12 hours since last administration.
        - Refer ASRA Guidelines
Based on “Risk vs. Benefit” it is preferable to remove the epidural catheter
- MD to Communication order words should indicate that protocol criteria have not been met & direct verbal RN communication should occur.

Many clinical situations and patient co-morbidities may predispose patients to an increased risk of potential complications related to neuroaxial anesthesia and analgesia. The following is list of common factors which may contribute to such an increase risk. (Refer to ASRA Guidelines 2010 http://www.asra.com/publications-anticoagulation-3rd-edition-2010.php)

- Patient related factors:
  - Advanced age (>75 years)
  - Female sex
  - Ankylosing spondylitis (Morbus Bechterew)
  - Spinal column abnormalities
  - Renal insufficiency
  - Known or unknown coagulopathy including thrombocytopenia

- Procedure related factors
  - Hemorrhagic puncture
  - Multiple punctures
  - Catheter insertion during general anesthesia

- Medication related factors:
  - Anticoagulant therapy
  - Antiplatelet agents: clopidogrel, ticlopidine
  - Aspirin dose >300 mg/day
  - ASA dose 81mg /daily
  - Dual anticoagulant/antiplatelet therapy
  - Fibrinolytic therapy
  - Non Steroidal Anti-Inflammatory Therapy

Examples of anti-thrombotic medications are found below (not inclusive):

- Intravenous Un-fractionated Heparin
- Low Molecular Weight Heparin:
  - Enoxaparin (Lovenox®, Xaparin® and Clexane®)
  - Dalteparin (Fragmin®)--full anticoagulation therapy

- Factor Xa Inhibitors:
  - Fondaparinux (Arixtra®)
  - Rivaroxaban (Xarelto®)

- Anti Platelet Aggregators:
• Clopidogrel (Plavix®)

• **Vitamin K Antagonists:**
  o Coumadin (Warfarin®)

• **Direct Thrombin Inhibitors:**
  o Dabigatran (Pradax®)
  o Bilivalirudin (Angiomax®, Angiox®)

• Such Patient populations may warrant increased surveillance of coagulation profiles. At the discretion of the APS physician or designate coagulation profiles can be ordered.
  o In the EPR *manually search ‘comm’* and selecting the test(s) and frequency desired.

• At the discretion of the APS physician or designate, increased surveillance for potential complications may be ordered. Such surveillance may be warranted in situation with increased risk for spinal epidural hematoma, infection, and subarachnoid leak.
  o Increase surveillance is ordered through the EPR by *manually searching Neuro Vital Signs*, selecting “neuro vital signs” and indicate; □ extremity strength, □ other, order words: document ‘bromage’ scale and frequency

• The discontinuation and removal of epidural catheters is a general nursing procedure which all registered nurses employed within the hospital are qualified to perform.
  o Documentation of removal of epidural catheter, whether by ward RN, APS physician or designate should be made as an *integrated progress note* in the EPR and include the following:
    ▪ Date, time and person who performed catheter removal
    ▪ Condition of insertion site and if catheter was intact
    ▪ Problems/difficulties encountered
    ▪ Dressings applied.
  o See appendix regarding policy Policy #110.400.I.07.02
  o [http://intranet.sbgh.mb.ca/ManualsNursing/files/110.400.I.07.02.pdf](http://intranet.sbgh.mb.ca/ManualsNursing/files/110.400.I.07.02.pdf)
ELECTRONIC PATIENT RECORD (EPR) ORDERS

The Electronic Patient Record (EPR) is the digital record of the patient chart encompassing digital versions of the former patient chart encompassing:

- Patient identification
- Diagnostic and laboratory data
- Integrated progress notes
- Consultation Records
- Physician Orders
- Medication administration records
- Nursing documentation
- Patient care flow sheets (eg. Vital Sign Records)

The EPR is the method in which physician orders are conveyed and communicated to applicable hospital employees. Physicians and physician designates can utilize either “order sets” or “manual search” options write orders for patients.

EPIDURAL FOR SURGICAL PATIENT

Via the ENTER ORDER icon select order sets → anesthesia → epidural for surgical patient or in the manual search bar enter “epidural for surgical patient”.

- Select medication
- Infusion rate
- Select “recue blood pressure” parameter

STANDARD AND NON-STANDARD MEDICATIONS FOR CONTINUOUS EPIDURAL INFUSION (CEI) AND PATIENT CONTROLLED EPIDURAL ANALGESIA (PCEA)

- STANDARD MEDICATIONS FOR EPIDURAL INFUSION

The following standard medications are available in the Post Surgical Epidural Analgesia Order set for both CEI and PCEA:

- Bupivicaine .6mg/mL with Hydromorphone 15mcg/mL
- Bupivicain .6mg/mL with Hydromorphone 30mcg/mL
- Hydromorphone 30mcg/mL
- Ropivicaine 2mg/mL
**NONSTANDARD MEDICATIONS FOR EPIDURAL INFUSION**

**NONSTANDARD MEDICATIONS** are available for post surgical analgesia. Indications for Non-Standardized medications are based on clinical need and circumstance and infrequently required. Nonstandard epidural infusions are ordered in the EPR via *manual search for nonstandard infusion epidural*. Specific medications and amounts need to be indicated in the appropriate selection box.

The following are examples of the most common nonstandard epidural medications prepared by Pharmacy:

- Hydromorphone 15mcg/ml
- Ropivicain 2mg/mL with Fentanyl 5mcg/mL
- Bupivicaine .6mg/ML with Fentanyl 5mcg/mL
PATIENT CONTROLLED ANALGESIA (PCA)

Via the ENTER ORDER icon proceed to the manual search bar enter “PCA IV”
- Select medication
- PCA bolus dose
- Bolus lock out interval
- Basal infusion if applicable; default off
- Clinician bolus if applicable; default off
- Loading dose if applicable; default off

See Appendix:
- Guidelines for Curlin Smart pump operation
- Curlin Smart Pump interrogation
Information on Demand (IOD) is only available when the pump is running.

Information on demand (IOD) keys provides the following information:

1. This screen provides the **DATE AND TIME** the pump is set to.
2. This screen shows the internal “C” cells battery level.
3. This screen shows the most common requested features within the **OPTIONS** area of the pump. (e.g. lock level)
4. This key holds the screens for **6 SECONDS**, for documentation or reviewing purposes.
5. This key provides **HOURLY TOTALS** up to three hours back.
6. This key provides the information on the **FIRST SCREEN of programming**
7. This key provides information related to **BASAL, BOLUS, BOLUS INTERVAL AND NUMBER OF BOLUSES/HR**.
8. This key provides information on the **Bolus Volume** as a percentage of the **total volume**.
9. This key provides you with the ability to **CLEAR SHIFT TOTALS**
10. This screen provides **THE TOTAL** amount of medication available within the hour