CPS/Regional Rotation Orientation

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Username: doctor   Password: doctor
http://arapmi.org/

ARMY REGIONAL ANESTHESIA & PAIN MANAGEMENT INITIATIVE
Improving Battlefield & Civilian Trauma Pain Control

HJF Nursing Specialist Wins Prestigious Celina Field Caregiver Award

Christine M. Rupprecht, MSN, RN, nursing specialist for the Army’s Regional Anesthesia & Pain Management Initiative at Walter Reed Army Medical Center, has won the prestigious Celina Field Caregiver Award by the National Pain Foundation (NPF). Ms. Rupprecht is an employee of The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.

More>>

The First Use of Regional Anesthesia in Iraq

Doctors at Walter Reed have been using regional anesthesia for years, but Oct. 7, 2003, was the first time they used it on the battlefield. "Army Spc. Brian Wilhelm was the first individual that ever had a continuous peripheral nerve block on the battlefield that was used during evacuation," said Buckenmaier. "We kept him pain-free from Iraq to Landstuhl and from there to Walter Reed, and he was able to do that without a narcotic," Buckenmaier said.

"These are the types of skills we have to master to take immunized soldiers into the war zone," he said. "This is something we're going to have to be ready to do from the jump."

More>>
MARAA Book Project

The Military Advanced Regional Anesthesia and Analgesia Handbook

This handbook, developed as a supplement to “Emergency War Surgery—The Third United States Revision,” serves as a resource for managing the pain of battlefield trauma. Its purpose is to educate anesthesiology residents in the art and science of advanced regional anesthesia techniques and acute pain medicine.

“The Military Advanced Regional Anesthesia and Analgesia Handbook” is available for free download. However, please note that any changes or modifications to the handbook are strictly prohibited. Readers can choose to download the handbook by chapter or in its entirety.

Hard copies of the MARAA training manual may be ordered through http://bordeninstitute.army.mil/

Download the Military Advanced Regional Anesthesia and Analgesia Handbook (zip file)

Cover
Introduction (Front Material)
Chapter 1 – The Military Advanced Regional Anesthesia and Analgesia Initiative: A Brief History
Chapter 2 – Peripheral Nerve Block Equipment
Chapter 3 – Local Anesthetics
Chapter 4 – Nerve Stimulation and Ultrasound Theory
Chapter 5 – Upper Extremity Neuroanatomy
Chapter 6 – Cervical Plexus Block
Chapter 7 – Interscalene Block
Chapter 8 – Supraclavicular Block
Chapter 9 – Infraclavicular Block
Chapter 10 – Axillary Block
Chapter 11 – Peripheral Nerve Blocks of the Arm
Chapter 12 – Paravertebral Nerve Block
Chapter 13 – Lower Extremity Neuroanatomy
Chapter 14 – Lumbar Plexus Block
Chapter 15 – Femoral Nerve Block
Chapter 16 – Individual Nerve Blocks of the Lumbar Plexus
Chapter 17 – Sciatic Nerve Block: Posterior and Alternative Approaches
Goals

- No Complications
- Successful blocks
- Don’t delay surgery
Goals

• Review Rotation Manuals
• Review how rotations run
• Review objectives of rotations
• Review responsibilities
CPS Guidelines

• Direct Link to PDF File

https://www.mc.vanderbilt.edu/root/vumc.php?site=1anesthesiology&doc=39330

• Rotation Objectives

• Resident/Fellow Role Description

• Helpful Information
  • Opioids/PCA/Multimodal Tips
  • Epidural/Peripheral Catheter Tips
CPS Rotation

• Perioperative pain management - Neuraxial anesthesia, peripheral nerve blocks, and peripheral nerve catheters.

• Emphasis is on procedural techniques, indications and contraindications, & communication between services.

• Management of patients postoperatively for acute pain issues is an essential component of this rotation.

• Chronic Pain Management and Consultations

• OWNERSHIP OF THE PATIENTS!!!
<table>
<thead>
<tr>
<th><strong>Regional Team</strong></th>
<th><strong>CPS Team</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Regional Attending</td>
<td>• CPS Attending</td>
</tr>
<tr>
<td>• Senior Resident</td>
<td>• Junior Resident</td>
</tr>
<tr>
<td>• Handle all procedures on 3&lt;sup&gt;rd&lt;/sup&gt; floor</td>
<td>• Intern</td>
</tr>
<tr>
<td>• Sign out to CPS team by 5 pm or sooner</td>
<td>• Rounds</td>
</tr>
<tr>
<td>• APS Fellow</td>
<td>• Floor consults/procedures</td>
</tr>
<tr>
<td></td>
<td>• CPS Fellow</td>
</tr>
</tbody>
</table>
CPS Call

Weekday  (20:00 – 6:30)

• Home Pager Call
  • Residents - CPS, Regional, & NSC
    • NO in house responsibility
  • CPS Fellow
    • Comes in if needed
  • CPS Attending
    • With Fellow for Procedures

Weekend

• Saturday Rounds
  • CPS Staff, CPS Fellow, & Intern

• Sunday Rounds
  • CPS Staff & Residents
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What is EditGrid?
EditGrid is an Online Spreadsheet service delivering Data on Demand.

- **Spreadsheet.** With majority of Excel features, EditGrid allows you to start working easily.
- **Online.** With sharing, collaboration & publishing features, EditGrid serves a big set of use cases better than Excel.
- **Data.** Connected to live data sources, EditGrid delivers data on demand.

Who is Using?
Over 100,000 personal and business users are registered with EditGrid to collaborate on spreadsheets.

- **Showroom.** Check out these amazing spreadsheets created by our users.
- **Case Studies.** Read our users stories and case studies, especially these financial and SME use cases.
- **Recommended.** In a recent survey, over 90% of EditGrid’s users said they would recommend EditGrid to their peers.

ADR (by wargodriver)
Predicting the opening of Hang Seng Index by tracking movements of ADR, it has 10,000+ daily unique visitors.

“We chose EditGrid because it provided the richest feature set of all the online spreadsheet tools and technologies we evaluated.”

Isaac Garcia, Central Desktop Co-Founder and CEO
www.editgrid.com
www.editgrid.com

Organization ID: vuaps
Username: apsteam
Password: sevoflurane
Organization ID: vuaps
Username: apsteam
Password: sevoflurane
The file will Autosave while you work with it.

To Print, choose File -> Print -> Selected Sheet

Go to Properties on the Print Dialog box and choose Landscape.

Organization ID: vuaps
Username: apsteam
Password: sevoflurane
CPS - Objectives

- Management of acute perioperative pain
- Thoracic epidurals & Trauma epidurals
- Peripheral nerve blocks/catheters
- Blood patches
- Coordination between services
- Troubleshooting pain issues
- Chronic Pain Patients and Consults
- Floor Consults placed 08:00-13:00 are seen same day by resident/fellow & staffed within 24 hrs
CPS - Responsibilities

- Assessment of potential candidates the night before
- Communicating with surgical and anesthesia team
- Confirmation of paperwork
  - Consent, H&P
- Facilitation of preoperative preparation
  - IV, H&P
  - Talk to patient about options
- Time Out
CPS - Responsibilities

• Preparation for block (be able to do everything Roland & Robyn do on your own!)

• Scan all the items that you need from the clean room (needles, trays, statlocks, dermabond, drapes, towels, probe cover, etc)

• Clean up after yourself!
CPS - Responsibilities

- CPS floor patients
  - Roll pager to yourself in AM!!
  - Print CMR/Inpatient Snapshot for rounds
  - Daily rounds
  - Communicating with primary teams
  - Updating census list and worksheet
  - Documentation – send everything to your attending!
  - Encounter notes for Postoperative checks & home calls

- Regional resident – Out of hospital by 5 pm
- Junior resident – In at 9 am & Out by 8 pm
CPS - Responsibilities

• Communication with attending
  • Day-time troubleshooting
  • Night-time troubleshooting

• Signout to Evening Nurse and Call Resident

• Following up with complications

• OWNERSHIP OF THE PATIENTS!!!
Home Pain Catheters

- Brochure on website – printout for patient
- Choose the CPS pager on brochure
- Remind patients that this is a **numerical** pager
- Get two phone numbers to call patients at home – put this onto EditGrid!!
- Write Patient Encounter Notes for every phone call to the patient and forward the notes as “Information Only” to the surgeon as well
Op Services Common Orders

Select product to reserve or transfuse:
1. PRBCs
2. Platelets
3. Fresh Frozen Plasma
4. Cryoprecipitate
5. enter allergy: (drug, food, other)

Holding Room:
Only order type & screen if NOT ordering products to reserve or transfuse.
6. type & screen(abo/rlh/atby scn) stat x1
7. « Return to previous list

this orderset last modified: 12-17-07 13:09

Select an item from the list

or enter another order
1. d/c aps order & aps pm meds
   ...or maybe...

2. aps peripheral nerve infusion (NON FORMULARY)
3. epidural analgesia orders (Peds) »
4. epidural analgesia orders (Peds) (draft) »
5. minstrelase (apsac): eminase

Select an item from the list

or enter another order
or press END to return to the previous list
Anesthesia Pain Service - Peripheral Nerve Catheter Orders

Nursing Orders

- Check orthostatic hypotension
- Ambulate with assistance if orthostatic hypotension not present
- Minimize immobilization of hand and forearm block in place
- Clutches/Walker per nursing or physical therapist ordered
- Volar immobilizer may be removed when patient is in bed or under physical therapy supervision
- Lower Extremity Catheter
  - If patient is unable to move foot or ankle within 6 hours of surgery, call APS (335-6701) immediately
  - For Ambulation:
    - Check for orthostatic hypotension
    - Ambulate with assistance if orthostatic hypotension not present
    - Volar immobilizer may be removed when patient is in bed or under physical therapy supervision
- Lower Extremity Block
  - Check patient’s ability for ability to move extremity with nerve block and patient needs before (0-10)
  - If patient unable to move wrist or ankle within 6 hours or surgery, call APS immediately
- If patient unable to move dorsalis pedis or astragalus per surgery, call APS immediately
- If patient able to move quadriceps and lateral patellar tendons within 6 hours, Increase Intensity by 2 mL/hr
- If patient unable to move quadriceps and patellar tendons within 6 hours, Increase Intensity by 2 mL/hr
- Call APS at 335-6701 with changes and document changes in progress notes

Physical Therapy

- Decrease intensity rate to 2 mL/hr before physical therapy
- Increase rate with physical therapy to pre-therapy settings

Upper Extremity Catheter

- Check patient with nerve block pain score (0-10)
- If patient’s pain is greater than 3, decrease by 2 mL/hr (minimum setting should be 2 mL/hr)
- If patient’s pain is greater than 5, decrease Intensity by 3 mL/hr
- If patient’s pain is greater than 7 despite nerve block and surgery, call APS at 335-6701
- Call APS at 335-6701 with changes and document changes in progress notes

- Instruct surgeon and IV medication order
<table>
<thead>
<tr>
<th>Catheter Location</th>
<th>Brachial Plexus</th>
<th>Lumbar Plexus</th>
<th>Sciatic</th>
<th>Femoral</th>
<th>Popliteal</th>
<th>Saphenous</th>
<th>Paravertebral</th>
<th>Other</th>
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<tbody>
<tr>
<td>Catheter Side</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pump Type</td>
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<td>Volume</td>
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</tr>
<tr>
<td>Infusion Setting</td>
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<td></td>
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Submit Order
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
<td>Catheter Location</td>
<td></td>
</tr>
<tr>
<td>Catheter Side</td>
<td>Left</td>
</tr>
<tr>
<td>Pump Type</td>
<td>Select-a-Flow</td>
</tr>
<tr>
<td>Medication</td>
<td>0.1%</td>
</tr>
<tr>
<td>Volume</td>
<td>6 ml/hr</td>
</tr>
<tr>
<td>Infusion Setting</td>
<td></td>
</tr>
<tr>
<td>Priority</td>
<td>Routine</td>
</tr>
<tr>
<td>Continue for</td>
<td>Until D/C</td>
</tr>
<tr>
<td>Comments</td>
<td></td>
</tr>
</tbody>
</table>

Submit Order
Current Allergy List in HEO\WizOrder
No Allergies Found.

APS Resident Beeper #835-5701

<table>
<thead>
<tr>
<th>Catheter Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Catheter Side</td>
<td></td>
</tr>
<tr>
<td>Pump Type</td>
<td>On-Q with Select-a-Flow</td>
</tr>
<tr>
<td>Medication</td>
<td>Bupivacaine 0.1%</td>
</tr>
<tr>
<td></td>
<td>Bupivacaine 0.125%</td>
</tr>
<tr>
<td></td>
<td>Bupivacaine 0.1%</td>
</tr>
<tr>
<td></td>
<td>Ropivacaine 0.2%</td>
</tr>
<tr>
<td></td>
<td>Ropivacaine 0.1%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Volume</td>
<td></td>
</tr>
<tr>
<td>Infusion Setting</td>
<td></td>
</tr>
<tr>
<td>Priority</td>
<td></td>
</tr>
<tr>
<td>Continue for</td>
<td>Until D/C</td>
</tr>
<tr>
<td>Comments</td>
<td></td>
</tr>
</tbody>
</table>

Submit Order
Current Allergy List in HEO/WizOrder
No Allergies Found.

APS Resident Beeper #835-5701

<table>
<thead>
<tr>
<th>Catheter Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Catheter Side</td>
<td></td>
</tr>
<tr>
<td>Pump Type</td>
<td>On-Q with Select-a-Flow</td>
</tr>
<tr>
<td>Medication</td>
<td>Bupivacaine 0.1%</td>
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<tr>
<td>Volume</td>
<td>500 mL</td>
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<table>
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<tr>
<th>Infusion Setting</th>
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</thead>
<tbody>
<tr>
<td>Priority</td>
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<tr>
<td>Continue for</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
</table>

Submit Order
Orders entered during this session by TRAINING, TRAIKEF for ZTESTEEIGHT, SAMEDAY

NURSING: "(aps-pnc) neurovascular checks and pain scores recorded every 4 hours" as dir
NURSING: "(aps-pnc) stop infusion if patient becomes confused or has acute mental status changes and notify aps at 835-5701" as dir
NURSING: "(aps-pnc) if patient loses pulses in extremity notify surgery and aps (835-5701) immediately" as dir
NURSING: "(aps-pnc) protect limb while block in place" as dir
NURSING: "(aps-pnc) lower extremity catheter if patient unable to move foot or ankle notify surgery and aps (835-5701) immediately" as dir
NURSING: "(aps-pnc) for ambulation: 1. check for orthostatic hypotension" as dir
NURSING: "(aps-pnc) for ambulation: 2. ambulate with assistance if orthostatic hypotension not present" as dir
NURSING: "(aps-pnc) for ambulation: 3. knee immobilizer when out of bed and nerve block in place" as dir
NURSING: "(aps-pnc) for ambulation: 4. crutches/walker per nursing or physical therapy as needed" as dir
NURSING: "(aps-pnc) for ambulation: 5. knee immobilizer may be removed when patient is in bed or under physical therapy supervision" as dir
NURSING: "(aps-pnc) for nerve exam: 1. femoral nerve - patient will be weak in quadriceps making it difficult to straighten leg from a bent position" as dir
NURSING: "(aps-pnc) for nerve exam: 2. sciatic nerve - patient will have difficulty moving ankle or wigging toes" as dir
NURSING: "(aps-pnc) check patient q4hours for ability to move extremity with nerve block and patient's pain score (0-10)" as dir
NURSING: "(aps-pnc) for pain control: 1. if patient unable to move foot or ankle notify surgery and aps immediately" as dir
NURSING: "(aps-pnc) for pain control: 2. if patient unable to move quadriceps decrease infusion by 2 mL/hr" as dir
NURSING: "(aps-pnc) for pain control: 3. if patient able to move quadriceps and pain is greater than 5 increase infusion by 2 mL/hr" as dir
NURSING: "(aps-pnc) for pain control: 4. if patient unable to move quadriceps and pain is greater than 5.7 decrease nerve block and surgery's nerve block medication order, call aps at 835-5701" as dir
NURSING: "(aps-pnc) for pain control: 5. call aps at 835-5701 with changes and document changes in progress notes" as dir
NURSING: "(aps-pnc) for physical therapy: 1. decrease infusion rate to 2 mL/hr before physical therapy" as dir
NURSING: "(aps-pnc) for physical therapy: 2. increase rate after physical therapy to pre-therapy settings" as dir
NURSING: "(aps-pnc) initiate surgeons oral and iv medication orders" as dir

APS-PERIPHERAL NERVE INFUSION 6mL/hr iv
- infusion instructions: "route: perineural; bupivacaine 0.1% via left femoral on q pump";
- comments: "tx to max 66.7 ml of bupivacaine 0.75% in ns 433.3 ml (total 500 ml)"

Accept Orders  Save As Draft  Modify Orders, Do Not Exit  Exit Without Accepting Orders

Diet

Medications
- Scheduled medications
  - aps peripheral nerve infusion 6mL/hr iv
- infusion instructions: "route: perineural; bupivacaine 0.1% via left femoral on q pump";
- comments: "tx to max 66.7 ml of bupivacaine 0.75% in ns 433.3 ml (total 500 ml)"
<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Infusion Rate</th>
<th>Volume</th>
<th>Brand</th>
<th>Size</th>
<th>Mode</th>
<th>Batch Group</th>
<th>Project Group</th>
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<td>NS</td>
<td>100.00</td>
<td>NS</td>
<td>300</td>
<td>6.0 Ml/HR</td>
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<td>NS</td>
<td>N</td>
<td>ML</td>
<td>NONE</td>
<td>NONE</td>
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<tr>
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<td>1</td>
<td>NS</td>
<td>100.00</td>
<td>NS</td>
<td>300</td>
<td>6.0 Ml/HR</td>
<td>1500</td>
<td>BUPRAVANIDE HCl 0.75%</td>
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<td>ML</td>
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<td>N</td>
<td>ML</td>
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### Anesthesia Pain Service - Epidural Infusion Orders

<table>
<thead>
<tr>
<th>Current Allergy List in MEDISysCode</th>
<th>Lab Values</th>
<th>Active Opioids on Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>• allergy to drug: benzodiazepine</td>
<td>INR 1</td>
<td>morphine injection: 2 mg im q4h prn x2 doses &quot;breakthrough pain&quot; end on 9/17 at 22:02</td>
</tr>
<tr>
<td>• rash; urticaria - per patient</td>
<td></td>
<td>perocet 5 mg/325 mg tablet 1 tab po q4h prn x3 doses &quot;for pain&quot; end on 9/17 at 22:02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Active AntiCoagulants on Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>aspirin 81 mg po qday &quot;target intcheck box to continue&quot;</td>
</tr>
</tbody>
</table>
## Anesthesia Pain Service - Epidural Infusion Orders

**APS Resident Keeper # 835-5701**

### Catheter Location
- **Epidural Pump**

### Pump Type
- **Medication**
  - Bupivacaine 0.1% (1/10%) (select all)

### Narcotics Available
- **None**

### Other Additives
- **None**

### Drains
- **Normal Saline 250 mL**

### Drip Rate
- **0.00 mL/hr**

### Demand Dose (Bolus)
- **0.00 mL**

### Demand Interval
- **0.00 mL in one hour**

### Lockout
- **0.00 mL in one hour**

### Continue for
- **UNTIL DISCONTINUED**

### Vital Signs
- **Select all**
  - Monitor Respiratory Rate
  - Monitor sedation according to RASS scale and motor function according to Beigman scale
  - Monitor sedation and motor function q4h and before ambulating. Do not ambulate if sedation or motor function not WNL. Notify APS immediately if motor function abnormal.
  - Monitor Pain Scale (0-10) q4h and document
  - Continue to monitor motor function q4h for 12h after removal of epidural catheter. Notify APS immediately for changes
  - Monitor epidural site for Hemorrhage
  - In & Out each 6th hr for bladder distention & notify primary service

### Nursing Orders
- **Select all**
  - Notify APS (835-5701) for inadequate analgesia; unacceptable pain relief; RR > 20; SBP < 90; T > 101.5°F within 8 hr; increased sedation; increased motor block; sedation side effects; disconnections; pump problems; or other concerns
  - Order new epidural medication bag from pharmacy when 60 mL of epidural solution remaining

### Active Anticoagulants on Profile
- Warfarin 8 mg po qd/sts "target int 2.5"
Vital signs
  ○ vital signs as dir "(ips-epidural) - monitor respiratory rate "; start today at 23:00
  ○ vital signs as dir "(ips-epidural) - monitor sedation according to risk scale and motor function according to "0"; start today at 23:00
  ○ vital signs q4h "(ips-epidural) - monitor sedation scale and motor function q4h and before ambulation"; start today at 23:00
  ○ vital signs q4h "(ips-epidural) - monitor pain scale (0-10) q4h and document "; start today at 23:00
  ○ vital signs q4h "(ips-epidural) - continue to monitor motor function q4h for 24h after removal of epidural catheter"; start today at 23:00
  ○ vital signs q6h "(ips-epidural) - monitor epidural site q6h for erythema "; start today at 23:00
  ○ vital signs q6h prn "(ips-epidural) - in & out cath q6h prn for bladder distention & notify primary

Activity/limitations

Allergies
  ○ allergy to drug: butorphanol - rash; urticaria - per patient

Nursing instructions
  ○ nursing: "(ips-epidural) - no parenteral/oral narcotics/sedatives given without consultation with aps"; start today at 23:00
  ○ nursing: "(ips-epidural) - no exocaparin (lowmase), warfarin (coumadin); heparin iv; clopidogrel (p2y); start today at 23:00
  ○ nursing: "(ips-epidural) - no promethazine (phenegran) while patient receiving epidural narcotics"; start today at 23:00
  ○ nursing: "(ips-epidural) - if pt is unresponsive call code stat; notify aps & stop infusion " as dir ; start today at 23:00
  ○ nursing: "(ips-epidural) - if rr less than 8/min or sedation greater than 3-3; stop infusion & call aps"; start today at 23:00
  ○ nursing: "(ips-epidural) - if sbp less than 80 or map less than 50; give 250 ml normal saline bolus; start today at 23:00
  ○ nursing: "(ips-epidural) - if sbp less than 75 or map less than 45; lay patient flat; give 250 ml normal saline; start today at 23:00
  ○ nursing: "(ips-epidural) - notify aps (857-5701) for inadequate analgesia; unacceptable pain relief; start today at 23:00
  ○ nursing: "(ips-epidural) - order new epidural medication bag from pharmacy when 50 ml of epidural

Diet

Medications
  ○ RASS sedation target
    ○ agitation sedation score misc "rass target as of 09/14/10 22:28 : 0 alert and calm"
    ○ Scheduled medications
      ○ epidural infusion: epidural x72 hours
        - Diluent: ns 250 ml
        - Basal rate: 5 ml/hr
        - Demand rate: 2 ml q20 min
        - Time: 11:11:12; end on 9/17 at 22:59
      ○ epidural pump from pharmacy misc as dir "(ips-epidural) ; epidural pump to be supplied by pharmacy"
      ○ warfarin: 6 mg po qdaytime "target INR 2-3;"
  ○ PRN medications
    ○ morphine injection: 2 mg im q4h prn x3 days "breakthrough pain"; end on 9/17 at 22:26
    ○ nalbuphine injection: subcut 5mg iv q4h prn "(ips-epidural); as needed for pruritis "; start today
    ○ ns bolus 250ml iv prn "(ips-epidural); as needed for sbp less than 80 or map less than 50"; start today
    ○ ondansetron injection 4mg iv q4h prn "(ips-epidural); as needed for nausea "; start today at 23:00
    ○ perocet 5mg/325mg tablet 1 tab po q3h prn x3 days "for pain"; end on 9/17 at 22:26

IV fluids

Laboratory tests
  ○ Daily labs
    ○ prothrombin time (pt) blood qam 05
Allergies
- allergy to drug: butorphanol - rash; urticaria; - per patient 14 22:27:00 2010...

Nursing instructions
- (aps epidural) - no parenteral/oral narcotics/sedatives given without consultation with the ordering physician...
- (aps epidural) - no enoxaparin (lovenox); warfarin (coumadin); heparin iv; clopidogrel
- (aps epidural) - no promethazine (phenergan) while patient is on epidural
- (aps epidural) - if pt is unresponsive call code stat; notify aps (835-5701)
- (aps epidural) - notify aps (835-5701) for inadequate pain control
- (aps epidural) - order new epidural medication bag from pharmacy by 17/9 22:25...

Diet
- RASS sedation target
  - agitation sedation score minus target as of 09/14/10 22:28...

Scheduled medications
- (aps epidural infusion: epidural 23 hours)
  - diluent: ns 250 ml
  - base rate: 5 ml/hr
  - demand rate: 2 ml q20 min
  - medication: bupivacaine 0.1% (33.3 ml bupi 0.75%); hydromorphone 10 mg/ml

- comments: lockout=11 ml/hr; cath: 1-12 Sep 15 22:00...

FRN medications
- morphine injection: 2 mg im q4h pm x 3 days "breakthrough pain"
- naldophine injection: nubain 5 mg iv q4h pm (aps epidural); ns bolus 250 ml iv pm (aps epidural); as needed for sbp less than 90/50 mm/hg
- ondansetron injection 4 mg iv q4h pm (aps epidural); as needed
- percocet 5 mg/325 mg tablet 1 tab po q8h pm x 3 days "for pain"

IV fluids
- Laboratory tests
  - Daily labs
    - prothrombin time (pt) blood qam 05 Sep 15 05:00...

Radiographic studies
- Miscellaneous orders
  - "Please educate the pt family" stat x1 Sep 14 22:31

Bells and whistles
Allergies:
- allergy to drug: butorphanol - rash: urticaria; - per patient \( \text{Sep 14 22:27:00 2010} \)

Nursing instructions:
- aps (epidural) - no parenteral oral narcotics/sedatives given without consultation with aps.
- aps (epidural) - no enoxaparin (lowmec); warfarin (coumadin); heparin iv; clopidogrel.
- aps (epidural) - no promethazine (phenegran) while patient receiving epidural narcotics.
- aps (epidural) - if pt is unresponsive call code stat; notify aps & stop infusion'' as dir.
- aps (epidural) - if \( r^3 \) less than 8/min or sedation greater than 2.3; stop infusion & call aps.
- aps (epidural) - if \( sbp \) less than 90 or map less than 50; give 250 ml normal saline bolus
- aps (epidural) - if \( sbp \) less than 75 or map less than 45; lay patient flat; give 250 ml normal saline bulb.
- aps (epidural) - notify aps (835.5701) for inadequate analgesia; unacceptable pain relief.
- aps (epidural) - order new epidural medication bag from pharmacy when 50 ml of epidural is empty.

Diet:
- RASS sedation target:
  - agitation sedation score misc ''rass target as of 09/14/10 22:28 : 0 alert and calm'' \( \text{Sep 14 22:28} \)

Scheduled medications:
- epidural infusion: epidural x72 hours
- diluent: as 250 ml
- base rate: as 5 ml/hr
- demand rate: 2 ml q20 min
- ingredient: bupivacaine 0.1% (33.3 ml bupi 0.75%); hydromorphone 10 mcg/ml
- comments: no ic 11 ml/hr; cath: 11-1-2 \( \text{Sep 14 23:00...Sep 17 22:59} \)
  - epidural pump from pharmacy misc as dir ''(aps-epidural)'' epidural pump to be supplied by pharmacy
  - warfarin: 6mg po qdaytime ''target intr 2-3'' \( \text{Sep 15 22:00...} \)
  - PRN medications:
    - morphine injection: 2 mg im q4h prn x3 days ''breakthrough pain'' \( \text{Sep 14 22:27...Sep 17 22:26} \)
    - morphine injection: xhain 5mg iv q4h prn ''(aps-epidural)'' as needed for prurit'' \( \text{Sep 14 23} \)
    - ns bolus 250ml iv prn ''(aps-epidural)'' as needed for \( sbp \) less than 80 or map less than 50; order
    - ondansetron injection 4mg iv q6h prn ''(aps-epidural)'' as needed for nausea; \( \text{Sep 14 23:00...} \)
    - percocet 5mg/325mg tablet 1 tab po q3h prn x3 days ''for pain'' \( \text{Sep 14 22:27...Sep 17 22:26} \)

IV fluids:
- Laboratory tests:
  - prothrombin time (pt) blood qam 05 \( \text{Sep 15 05:00...} \)

Radiographic studies:
- Miscellaneous orders:
  - anitcoag patient education ''please educate the pt family'' stat x1 \( \text{Sep 14 22:31} \)

Bells and whistles:

Anesthesia Pain Service * MODIFY * Epidural Infusion

You have selected to MODIFY the APS Epidural Infusion.

Please indicate if you wish to:

1. Adjust current infusion rate or comment
2. Change current epidural formulation

Select an option below:
- 1 Adjust infusion Rate or Comment
- 2 Change Epidural Formulation
- 3 Exit Without Ordering

| print <F1> | display <F2> | D/C <F3> | renew | consign | order sets <F4> | oops <F5> | help <F6> | complain <F7> | done <F8> |
Anesthesia Pain Service - MODIFY Epidural Infusion Orders

Current Order: epidural infusion: epidural x72 hours; diluent: NS 250 mL; basal rate: 5 mL/hr; demand rate: 2 mL q20 min; ingredient: bupivacaine 0.1% (33.3 mL bupi 0.75%); hydromorphone 10 mcg/mL; comments: lockout 11 mL/hr/cath; 1 L 2 Sep 14 23:00.. Sep 17 22:59

Current Allergy List in HONOR/Order:
- allergy to drugs: benzyl alcohol - rash, urticaria - per patient s Sep 14 22:03:00...

Active Opioids on Profile
- morphine injection: 2 mg IM q8h pO2 days "breakthrough pain" Sep 14 22:27.. Sep 17 22:26
- patient: 5 mg/25 mg tablet 1 tab po q8h pO2 days "for pain" Sep 14 22:27.. Sep 17 22:26

Active Anticoagulants on Profile
- heparin: 5 mg po q4h "target INR 2:3" Sep 15 22:00...

APS Resident Beep #835-5701

- Character Location: L-1-2
- Pump Type: Epidural Pump
- Medication: Bupivacaine 0.1% (1/10)
- Narcotic Additive: Hydromorphone (Dilaudid) 10 mcg/mL
- Other Additive: Refer to current order above

- Normal Saline 250 mL
- Basal Infusion Rate: 5 mL/hr
- Demand Dose (Bolus): 2 mL
- Demand Interval: 20 minutes
- Lockout: 11 mL in one hour

- Additional PRN Medications: Select individually Absent checkboxes indicate order are already on profile
  - Nebulizer (Torsade) 0.25 mL q8h pain
  - Diphenhydramine (Benadryl) 12.5 mL IM q8h pO2 itching
  - Diazepam (Valium) 1 mL IM q8h pO2 respiratory distress or narcotic overdose
  - Additional PRN Medications are not available for APS: Bupivacaine 0.2% via epidural cath 0.5 mg/mL; hydromorphone 1 mg/mL; fentanyl 2% (preservative free) 10 mL; fentanyl 2% (preservative free) 20 mL; phenylephrine 10 mg/mL

- Vital Signs: Absent checkboxes indicate order are already on profile
  - Monitor Respiration Rate
  - Monitor sedation according to PAAS scale and motor function according to Bromage scale
  - Monitor sedation scale and motor function q8h and before ambulating. Do not ambulate if sedation or motor function not WNL. Notify APS immediately if motor function abnormal.

- Nursing Orders: Absent checkboxes indicate order are already on profile
  - NO nalbuterol (Bricanyl) given without consultation with APS
  - NO ambipap (Loxapex) without consultation. May give 1 tablet IV (using flow) or fragments (Effexor) to be administered while on epidural
  - NO promethazine (Phenergan) while patient receiving epidural narcotics
  - If patient is unresponsive call CODE STAT; notify APS & stop infusion
  - IF RB less than 60/min or sedation greater than 2/3; stop infusion & call APS
  - If SBP less than 80 or MAP less than 60; give 250 mL normal saline IV; recheck blood pressure; notify APS
  - If SBP less than 70 or MAP less than 40; lay patient flat; give 250 mL normal saline IV; recheck blood pressure; stop epidural if BP not improved; notify APS
  - Notify APS (835-5701) for inadequate analgesia; unacceptable pain; RR < 8; SBP < 60. T < 101.5°; within 8 h; increased sedation; increased motor block; catheter site concerns; disconnections; pump problems; or other concerns

Submit Order

Exit Without Ordering
Anesthesia Pain Service - MODIFY Epidural Infusion Orders

Current Order  - epidural infusion: epidural x72 hours - diluent: ns 250 ml - basal rate: 5 ml/hr - demand rate: 2 ml q20 min - ingredient: bupivacaine 0.1% (33.3 ml bupi 0.75%); hydromorphone 10 mcg/ml - comments: lockout: 11 ml/hr; cath: 1.1.2; Sep 14 23:30... Sep 17 22:59

Current Allergy List in HEW/MSOrder
- allergy to mgs, morphine - rash; urticaria - per patient - Sep 14 22:27; 09 2010...

<table>
<thead>
<tr>
<th>Lab Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>INR</td>
</tr>
<tr>
<td>TTT</td>
</tr>
<tr>
<td>PLT</td>
</tr>
<tr>
<td>D-D</td>
</tr>
</tbody>
</table>

Active Opioids on Profile
- morphine injection: 2 mg im q8h pm x3 days*breakthrough pain* Sep 14 22:27... Sep 17 22:28
- pethidine 50 mg sq bid tablet 1 lab po q8h pm x3 days*for pain* Sep 14 22:27... Sep 17 22:20

Active Anticoagulants on Profile
- heparin: 0 mg po qbedime "target int=2.0" Sep 16 22:00...

Agitation sedation scores miss "last target as of 01/01/10 22:00:00 a alert and calm" Sep 14 22:20...

Epidural pump to be supplied by pharmacy with initial bag

PRN Medications
- Absent checkboxes indicate orders are already on profile
- Nalbuphine (Nubain) 5 mg IV q8h pm prn nausea
- Ondansetron (Zofran) 4 mg IV q8h pm nausea
- Normal saline 250 ml IV bolus pm. SBP less than 90 or MAP less than 60

Additional PRN Medications (select individually) absent checkboxes indicate orders are already on profile
- Ketorolac (Toradol) 30 mg IV q3h prn pain
- Diphenhydramine (Benadryl) 25 mg IV q8h pm prn itching
- Narcan 0.4 mg IV q15 min respiratory distress or narcotic overdose
- Suction Medications as per "Available for APS: bupivacaine 0.25% via; epinephrine 50 mg amp; hydromorphone 1 mg amp; lidocaine 2% (preservative free) 10 ml; lidocaine 2% w/v (preservative free) 20 ml; phenylephrine 10 mg via"

Vital Signs
- Absent checkboxes indicate orders are already on profile
- Monitor Respiration Rate: Monitor sedation according to PASS scale and motor function according to Bromage scale
- Monitor sedation scale and motor function q4h and before ambulating. Do not ambulate if sedation or motor function not WNL. Notify APS immediately if motor function abnormal.
- Monitor Pain Scale (0-10) q4h and document
- Continue to monitor motor function q4h for 24h after removal of epidural catheter. Notify APS immediately for changes
- Monitor epidural site q4h for anesthesia
- In + out cath q8h pm for bladder distention & notify primary service

Nursing Orders
- Absent checkboxes indicate orders are already on profile
- No parenteral or oral narcotics ordered given without consultation with APS
- No morphine (Demerol) ordered (Cournarid) heparin IV, cephalogip (Flamoxetine), or Phenergan (Effertin) to be administered while on epidural
- No prn medications (Flarex) while patient receiving epidural narcotics
- If pt is unresponsive call CODE STAT; notify APS & stop infusion
- If RR less than 8/min or sedation greater than 2:3; stop infusion & call APS
- If SBP less than 80 or MAP less than 60; give 250 ml normal saline bolus; recheck blood pressure; and notify APS
- If SBP less than 75 or MAP less than 45; lay patient flat giving 250 ml normal saline bolus; recheck blood pressure, stop epidural if BP not improved; and notify APS
- Notify APS (635-5701) for inadequate analgesia; unacceptable pain relief RR <5; SBP<80; T>101.5 x2 within 8 hr; increased sedation; increased motor block; catheter site concerns; disconnections; pump problems; or other concerns
- Order new epidural medication bag from pharmacy when 60 ml of epidural solution remaining

APS Resident Beeper #635-5701

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<table>
<thead>
<tr>
<th>Cather Location</th>
<th>L 1 L 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump Type</td>
<td>Epidural Pump</td>
</tr>
<tr>
<td>Medication</td>
<td>Bupivacaine 0.1% (0.1%)</td>
</tr>
<tr>
<td>Narcotic Additive</td>
<td>Hydromorphone (Ora) 10 mcg/ml</td>
</tr>
<tr>
<td>Other Additive</td>
<td>refer to current order above</td>
</tr>
<tr>
<td>Diluent</td>
<td>Normal saline 250 ml</td>
</tr>
<tr>
<td>Baseline Rate</td>
<td>2 ml/hr</td>
</tr>
<tr>
<td>Demand Dose</td>
<td>1 ml</td>
</tr>
<tr>
<td>Demand Interval</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Lockout</td>
<td>5 mL in 1 hour</td>
</tr>
<tr>
<td>Continue for</td>
<td>72 Hours</td>
</tr>
</tbody>
</table>

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Submit Order

Exit Without Ordering
Allergies: 
- allergy to drug: butorphanol - rash; urticaria; - per patient » Sep 14 22:27:00 2018...

Nursing instructions:
- nursing: “(eps-epidural) - no parenteral/oral narcotics/sedatives given without consultation with a physician”
- nursing: “(eps-epidural) - no enoxaparin (lexoxan); warfarin (comadin); heparin iv; clopidogrel”
- nursing: “(eps-epidural) - no promethazine (phenegran) while patient receiving epidural narcotics”
- nursing: “(eps-epidural) - if pt is unresponsive call code stat; notify aps & stop infusion” as dir by physician
- nursing: “(eps-epidural) - if rr less than 8/min or sedation greater than 2-3; stop infusion & call physician”
- nursing: “(eps-epidural) - if sbp less than 80 or map less than 50; give 250 ml normal saline bolus”
- nursing: “(eps-epidural) - if sbp less than 75 or map less than 45; lay patient flat; give 250 ml normal saline bolus”
- nursing: “(eps-epidural) - notify aps (855-5701) for inadequate analgesia; unacceptable pain relief”
- nursing: “(eps-epidural) - order new epidural medication bag from pharmacy when 50 ml of epidural

Diet:
- RASS sedation target:
  - agitation sedation score misc: “rass target as of 09/14/10 22:28:00: alert and calm” » Sep 14 22:28...
- Scheduled medications:
  - epidural infusion: epidural » 2 hours
  - diluent: ns 250 ml
  - basal rate: 2 ml/hr
  - demand rate: 1 ml q30 min
  - ingredient: bupivacaine 0.1% (33.3 ml bupi 0.75%); hydromorphone 10 mg/ml
  - start today at 23:00
  - bolus: 5 ml/hr; cath: 1-1-2 » Sep 14 23:00; end on 9/17 at 22:59
  - epidural pump from pharmacy misc as dir “(eps-epidural)”; epidural pump to be supplied by pharmacy
  - warfarin: 6 mg po qday “target int: 2-3” » Sep 15 22:00...
  - PRN medications:
    - diphenhydramine inj; benadryl 12.5 mg iv q6h prn “(eps-epidural)”; as needed for itching”
    - morphine injection: 2 mg im q4h prn x3 days “breakthrough pain” » Sep 14 22:27:21; Sep 17 22:26
    - nalbuphine injection: nubain 5 mg iv q4h prn “(eps-epidural)”; as needed for pruritus” » Sep 14 23:08
    - ns bolus 250ml iv prn “(eps-epidural); as needed for sbp less than 80 or map less than 50”» Sep 17 22:26
    - endostentron injection 4 mg iv q6h prn “(eps-epidural)”; as needed for nausea” » Sep 14 23:00...
    - percocet 5mg/325mg tablet 1 tab po q6h prn x3 days “for pain” » Sep 14 22:27; Sep 17 22:26

Laboratory tests:
- prothrombin time (pt) blood qam 05 » Sep 15 05:00...
- PT/INR blood qam 05 » Sep 15 05:00...
- PT/INR blood qam 05 » Sep 15 05:00...

Miscellaneous orders:
- anticoag patient education “please educate the pt family” x3l » Sep 14 22:31

Select an item from the list

or enter another order
Anesthesia Pain Service *DISCONTINUE* Epidural Infusion

ZBILLCCC, WESTIE has an active APS Epidural Infusion on profile.

Please indicate if you wish to

1. Discontinue Epidural and associated orders
   (All associated orders displayed will be discontinued unless * deselected * from the screen)
2. Discontinue Epidural Only
   (associated orders are retained)

Select an option below:

1. Discontinue Epidural + associated orders
2. Discontinue Epidural Only
3. Exit Without Ordering
medications

1. algorithms for empirical antibiotherapies
2. ace inhibitors
3. antiocoagulants
4. antiocoagulants (Cardiology)
5. beta-blockers
6. calcium channel blockers
7. ETOH cocktail
8. iv fluids
9. nitrates
10. prn medications
11. adult TPN lab orders
12. Orthopaedic Medication Orders
13. diabetes pathway orders
14. trauma service antibiotic protocol orders
15. trauma service pain management orders
16. SICU IV fluid orders
17. digoxin loading orders
18. Steroid taper options (NSGY)
19. Neurocare ICP Antibiotic Prophylaxis orders (Clarkson)
20. burn medication orders
21. Hemodialysis Medication Orders

Select an item from the list

or enter another order
or press END to return to the previous list

Laboratory tests
-Daily labs
-prothrombin time (pt) blood qmn 05 »Sept 15 05:00...

Radiographic studies

Miscellaneous orders
-anticoag patient education “please educate the pt family” stat x1 »Oct 14 22:31
-
-Bells and whistles

IV fluids

Laboratory tests
-Daily labs
-prothrombin time (pt) blood qmn 05 »Sept 15 05:00...

Radiographic studies

Miscellaneous orders
-anticoag patient education “please educate the pt family” stat x1 »Oct 14 22:31
-
-Bells and whistles

IV fluids
Regional (NSC) Rotation

• This rotation provides an excellent opportunity to learn regional anesthesia including ambulatory neuraxial anesthesia, peripheral nerve blocks, and peripheral nerve catheters.

• The emphasis is on applied regional anatomy, procedural techniques, indications and contraindications, and communication between services.
Regional (NSC) - Objectives

- Appropriate candidates
- Time management in busy surgery center
- Coordination between services
- Coordination with holding room
- Peripheral nerve blocks/catheters
- Patient follow-up
- Develop expertise in peripheral nerve blocks/catheters
  - Textbooks/DVD material
  - Watch blocks even when it is not your block day
  - Review anatomy
Regional - Responsibilities

- Get in early to preop and prepare patients for first start
- Make sure you check off with Holding Room Nurse
- Sign checklist when taking patient to block area
- Both residents work together to get first blocks done
- Examine patient for block success/failure
Regional (NSC) - Responsibilities

- Develop plan for intraop sedation/general
- Documentation
  - Notes
  - REDCap database
- Postop checks
- Review the cases that might have blocks the day before
  - Discuss with attending when possible
- Draw up drugs at the end of a day for the next day
Regional - Responsibilities

• Peripheral nerve catheters
  • OPS Cell Phone – 497-2870
  • Expertise in technique
  • Preparation of On-Q pump
  • Education of patient/brochure
• Maintain OPS census/signout list on EditGrid
• Daily follow-up phone call to OPS patients
• Participate in nightly CPS pager call coverage
  • NSC & CPS Patients
• Nightly/Weekend/Holiday signout to CPS resident on call (roll CPS pager)