Suggested reading material, websites, and opioid conversion:

   a. Available on amazon kindle
   b. Available McGoogan e-book:
   a. This book if very important and will tremendously help patient care on APS
   b. Available on amazon kindle
   c. Available McGoogan e-book:
6. Opioid conversion software:
   a. UNMC opioid conversion website:
      [http://preceptor.com/other/pharmadm/clinphar/OpioidConvert.html](http://preceptor.com/other/pharmadm/clinphar/OpioidConvert.html)
   c. OPIOID – Apple iPhone App
7. Anticoagulant/neuroaxial UNMC guidelines:
8. Anticoagulant/neuroaxial UNMC software:
   a. Droid: coagulex and asra-coags from google play store
   b. Apple: asra-coags from itunes.
Daily Duties and Requirements:

Regional Service (resident #1):

1. Review next day’s schedule by 4pm
   a. Identify potential epidural and peripheral block patients with APS staff
   b. Look for potential gaps in coverage i.e. block required for surgical anesthesia on both
      sides will require recruiting more APS staff
   c. Ensure all first start epidurals & blocks have staff able to provide
   d. Make sure the primary anesthesia staff are aware that they have a block or epidural the
      following day that needs to be done.
      i. Please communicate this with staff or resident.

2. Day of surgery:
   a. Obtain a surgery schedule or print off schedule.
      i. There is no “master” list for daily blocks. You are responsible for determining
         which patients would benefit from a block and discussing this with the surgeon
         if necessary. See block/surgeon preference below.
      ii. Plan a schedule for your day based on surgery start times
   b. Ensure all blocks are covered for first case starts.
   c. If unable to block pre-op ask primary anesthesia team obtain consent for block in PACU
      i. Most blocks can be done in PACU
      ii. Very difficult to place epidural in PACU so attempt to place in pre-op
      iii. Surgical anesthesia blocks have the highest priority
   d. First case blocks are primary anesthesia team responsibility unless deferred to APS
   e. All non-first case blocks are APS responsibility.
      i. Communicate with primary team to arrange optimal times
   f. Never delay a case for a post-operative block.

3. Single Shot Peripheral Nerve blocks:
   a. Obtain block pack, nerve block needle, and U/S machine
   b. Post-op pain blocks always use ropivacaine/bupivacaine 0.25%
   c. Surgical anesthesia blocks can be ropivacaine/bupivacaine 0.5%, lidocaine 2%, or
      mepivicaine 1.5%
      i. Mixing local is unhelpful and unpredictable
   d. Block additives staff and block location dependent
      i. Usually 100ug epinephrine per 30cc local
      ii. Decadron 2-4 mg per 30cc local

4. Peripheral Nerve catheter:
   a. Obtain either combination:
      i. Block pack and nerve stimulating touhy set
      ii. Arrow epidural kit, probe cover, chlorhexidine
   b. Both combinations require ¼” or ½” steri-strips, wound adhesive, sorbaview, sterile
      gloves, mastisol
5. Epidurals
   a. Obtain epidural chair if available
   b. Arrow epidural kit, sterile gloves, chlorhexidine, sorbaview, mastisol, stat-lock
   c. Order epidural solution:
      i. Standard solution and rate 0.05% bupivacaine with 10ug/ml dilaudid at 8cc/hr
         1. Use 5ug/ml or plain local only if elderly (80+ yrs) or narcotic sensitive
         2. PCEA dose (if no PCA) 2ml every 10 minutes
         3. No clinician bolus dose
      ii. Bupivacaine 0.1% plain at 8ml/hr for chronic opioid patients with no PCEA
          1. Add dilaudid/morphine PCA for patient
   d. Ensure all block notes are complete, patient is added to block list regardless if being discharged

6. Exparel Use:
   a. Exparel must be used in the OR, Preop, or PACU per hospital policy
   b. Safe to use 266mg Exparel and either 40cc 0.25% bupivacaine or 20cc 0.5% bupivacaine.
      i. Safety uncertain with concomitant use of Exparel and epidural or peripheral continuous infusion nerve catheter unless risk/benefits ratio is considered to be conducive with improved patient care.
      ii. No other additives should be mixed with exarel

General Block/Surgeon Preference:
1. In general, you are the APS specialist so learn to formulate who would benefit from regional and discuss it with the patient and document informed consent
2. Most surgeons are receptive to regional but there are a few times when surgeons have specific requests:
   a. Trauma ortho requests no blocks on fractures of tibial diaphysis, tibial plateau, or when significant soft tissue injury is present. Please go over blocks for traumatic fractures with surgeons.
   b. Gyn requests no epidurals for TAH/BSO but they requests TAPs for these patients. If the TAH/BSO is associated with pelvic exoneation then an epidural is indicated.
   c. Langenfield requests post op OR exarel TAPs for his hand assisted colectomy
   d. Shoulder surgeons are fine with catheters if it is intrascalene or supraclavicular and secured high on the neck.
   e. Vogel doesn’t want blocks for his AV fistulas but prefers blocks for grafts.
   f. Garvin, Konisberg, Hartman all request adductor canal blocks for their TKA’s
   g. Urology only wants epidurals for open radical cystectomy and nephrectomy.
   h. Trujillo only wants epidurals for open radical cystectomy and nephrectomy.
   i. All cystectomies will have epidurals unless contraindicated including davinci.
3. Again most surgeons are receptive to blocks. They just want to be kept in the loop and not feel like they will be slowed down. Have the APS staff discuss with surgeon if block is indicated and surgeon is reluctant.
4. This section may frequently change due patient needs and standard of practice. Please do not rely on these specifics requests while making your plan of care.

**Floor Pain Service (resident #2):**

1. As you may know pain has a significant supratentorial component. A very important part of caring for inpatients is that they feel that you are their advocate, you consider their pain as important as a heart attack, and that you are rapidly available to help them if they need it.
   a. Please convey this to them when you have interactions with them.
2. First thing in a.m. is to communicate with block team to facilitate epidurals or blocks on HL side.
   a. Assist with or place epidural or blocks with free APS staff on HL side.
3. Obtain patient floor list in a.m.
4. Find out if there was any pain issues overnight from resident when you get pagers because these patients will likely need to be seen right away.
5. The Pain PA will begin rounding at 830am. Contact her to discuss overnight issues.
6. Your priority is floor pain service on all days:
   a. You be assigned a minimum of 4 patients which you will be responsible for. If you would like to be involved in more patient care arrange with Pain PA to see concurrently with the PA.
   b. Formulate patient care plan and review with staff and arrange to see priority patients with staff between perioperative blocks.
   c. Facilitate redo floor blocks and epidurals with APS assigned or unassigned staff.
7. Breakthrough pain:
   a. Give the nurse instructions to temporize the situation until you arrive ie order a onetime IV narcotic bolus even with epidural since the epidural may not be working
   b. Do not have the nurse bolus the epidural when there is concern that it is not functioning
   c. Do not adjust narcotic PCA without consulting staff
   d. If epidural is present then you must see patient and troubleshoot epidural
8. Narcotic PCA’s and opioid management
   a. We do not sign off on patients when epidural is removed unless surgeon requested.
   b. Be prepared to de-escalate narcotic regimen when patient pain stabilizes
   c. We do not write for outpatient narcotics however we must ascertain who will be writing the RX and provide a taper or other outpatient instructions.
9. Ketamine gtt management:
   a. Sub anesthetic doses of ketamine reduce narcotic total dose and improve patient response.
   b. Do not adjust this medication past 14 mg/hr (0.2mg/kg/hr) Beware of high BMI patients. If this rate is exceeded then delirious CNS affects may occur. A typical dose should be 8-10mg/hr in an adult or 0.1mg/kg/hr in a pediatric patient.
   c. Consider daily de-escalation of gtt if used more than 24 hours continuously
   d. Confer with your attending prior to dosage adjustment.
10. Daily pain notes:
   a. Always review anticoagulation meds and labs
b. Assure the patient is maximized on multi-modal regimen  
c. Assure the patient has adequate bowel prep, antiemetics  
d. Ascertain P.O. status  

11. New pain consults:  
   a. **Do not assume that this is an inappropriate consult.** Your staff will determine this. For instance, we are seeing any acute pain oncology patients regardless if they see chronic pain physicians.  
   b. Please fill out a pain consult for these patients  
   c. Determine reason of consult medication management or recommendations only?  
   d. Be thorough and specific in determining their home narcotic regimen:  
      i. What is their baseline pain score?  
      ii. Where is their pain?  
      iii. What is the quality of their pain? Neuropathic? Or Somatic?  
      iv. How many narcotic pills they take each day? Determine accurate daily morphine equivalence.  
      v. Is the patient taking other pain adjunct medications?  
      vi. What is their response to the pain medication?  
      vii. How long have they been on it?  
      viii. Who writes their narcotics (this needs to be verified especially on methadone)?  

Check out and end of the day for residents:  
1. Regional resident will be check in with CD when all blocks are completed.  
   a. Resident will convey to in-house call resident any potential patient issues for the evening.  
2. Floor pain service resident will check in with CD when the following criteria are met:  
   a. all floor duties have been completed  
   b. APS PA and MD approve release to general OR duties  
   c. Check out with pain PA and discuss any possible issues overnight  
   d. Resident will convey to in-house call resident any potential patient issues for the evening.  
3. Your discharge home will be determined by the APS MD not the CD. Late resident is expected to stay until 5pm. Early out resident is expected to stay until 2pm except on Monday. On Monday APS MD will weigh your weekend call duties in determining appropriate dismissal time.  

Weekend Rounding:  
1. Please be ready to start rounding at 730.  
2. When leaving after rounds check out with in house resident.
Resident APS Orientation