A Quick Orientation to the Acute Pain Management Service

1. Epidurals

All patients with an indwelling epidural need to be on the APMS with appropriate orders written on the pre-printed orders (PPO). If the PPOs are not filled out completely, the resident will receive a substantial number of calls in order to correct them. You must order all preoperative opioids that you wish to continue as well as any sedatives, neuropathic agents, NSAIDs or Tylenol. Please document on Acupam any difficulties you encountered when siting the epidural. The departmental guidelines on neuraxial blocks and anticoagulant/antiplatelet agents can be found under 'Clinical Guidelines'

The following solutions are available:

Hydromorphone 10mcg/mL/Bupivacaine 1mg/mL (HM10/B1): most common
In the following situations, consider the following solutions:
HM10/B2: for those with severe pain
HM20B1: for opioid tolerant patients
HM20/B2*: for chronic pain patients who are opioid tolerant
B1.25: for elderly patients who become delirious and sedated with the HM, or for those patients that have too much pruritis
HM20 or 40: for those patients who cannot tolerate a sympathetic block of any kind
HM5/B1*: pediatrics, as young patients are often too itchy on HM 10

***must ask pharmacy to mix solution as not standard, therefore may not be available in the middle of the night or on weekends

All patients with epidurals for analgesia are expected to mobilize with the help of one nurse. In order to do so safely, they must not have a motor block of their legs. There is not enough support on the wards for patients to require 2 people to help them ambulate. For these reasons, please do not routinely site lumbar epidurals and attempt to ensure that the epidural block does not extend below T12. For pelvic and lower abdominal surgery, consider a T10 PCEA with a rate of 4-6mL/hr with a bolus of 3-5mLs every 30-60minutes when ambulating. Patients with incisions higher in the abdomen and chest do well with epidural catheters placed at a level corresponding to the mid-upper incision.

Please do not send patients from the PACU to the floor with a motor block from an epidural. This should be resolved before leaving the PACU. In most cases, if a patient cannot walk, the epidural is doing him/her no benefit and should be replaced. More importantly, epidural hematomas CANNOT be ruled out if they have a motor block.

Epidurals for most patients should not inhibit their ability to walk. If they cannot get out of bed due to leg weakness, then this should be addressed immediately. If your patient has a neurological abnormality and you feel an MRI is indicated to rule out a hematoma,

1. Attending APMS/Anesthesiologist to discuss concerns with Attending Surgeon or MRP covering
2. Surgeon and Anesthesiologist must agree that risks of potential clip movement is acceptable compared to risk of neuraxial hematoma. Note: All internal clips in KGH are titanium, therefore MRI compatible
3. Anesthesiologist to discuss with neuroradiologist and request MRI.
4. MRI will ensure that all internal staples and clips are properly documented by nursing on the OR record
5. Epidural to be removed by anesthesiologist as it is not MRI compatible. Coagulation profile must be taken into consideration and treated appropriately.
6. All skin staples are stainless steel (although they are MRI compatible, there is concern that they may heat initially) therefore must be removed by the surgical service and replaced with steristrips or sutures without delaying MRI.
7. MRI will be interpreted by neuroradiologist immediately upon completion of scan and neurosurgeon consulted depending on result. Neuroradiologist should review MRI with APMS/Anesthesiology Attending Staff

Gynecologic oncology and general surgery patients are often placed on q8h heparin post operatively for DVT prophylaxis as per ACCP guidelines. If using epidural analgesia in these patients, avoid concurrent use of other medications affecting clotting such as ASA and NSAIDs. If the epidural is functioning, there is little need for NSAIDs. They may be used once the epidural is removed.

Liver resection patients often have a high INR on POD #1 and 2. This usually resolves without treatment by POD #4-5. The surgeons use the trends of the INR in assessing and evaluating liver function. If you feel FFP or Vitamin K is indicated for your patient, please discuss with the attending surgeon prior to ordering. They should be aware of your concerns and they need to alter their evaluation of liver function if exogenous products have been given.

Foley catheters are not needed just because patients have an epidural. If the patient can walk, he/she can probably void.

2. IV-PCA

The standard solutions are:

Morphine 2.5mg/ml
Hydromorphone 0.5mg/ml
Fentanyl 50mcg/ml*

***must ask pharmacy to mix solution as not standard, therefore may not be available in the middle of the night or on weekends.

As with epidurals, please place the patient in ACUPAM, fill out the appropriate PPO and ensure that any appropriate pre-operative opioids, sedatives, sleeping pills, etc. are reordered. If any patient has a PCA or an epidural, the APMS prescribing restrictions are in place which means that ONLY APMS can order analgesics (including NSAIDs and Tylenol), neuropathic pain adjuncts and sedatives,

When initiating a PCA on a patient with the dual line IV system (BD Nexiva IV catheter), please ensure the additional port is capped off with a dead end cap to prevent an additional line from being attached. The additional line is distal to the backflow valve and therefore would have no safety mechanism to prevent opioid accumulation in the line and could inadvertently lead to a large opioid bolus..

Most TKA patients are receiving a PCA for the first night with good results. As the THA patients do not appear to have as much pain, not all THA patients are using a PCA substantially. Those patients that have significant preoperative pain requiring opioids, additional analgesic agents or have neuropathic pain symptoms seem to be a subset that does appreciate a PCA on the first night. Other patients for THA may do well with appropriate nurse administered analgesia. All THA and TKA patients are aiming to go home on POD #2 or 3. In order to meet that goal, the surgeons would like to have the PCA stopped in morning of POD #1. If you feel it is in the patients' best interest and if they are able to manage adequately on oral opioids, then we should strive to follow this timeline. The nurses are extremely stretched and are unlikely to be able to help mobilize the patient who is hindered by a PCA. These patients must mobilize and are more likely to manage it without an IV and PCA attached to them.

The orthopedic surgeons are all in agreement with NSAID use in total joint arthroplasty patients if there are no contraindications.

Consider decreasing ropivacaine in the Periarticular Infiltration solution for those <60kg and/or >80yrs old. The ropivacaine is supplied as 300mg in 120ml (0.25%). It is our practice to add 300mcg of epinephrine to all solutions. Additional medications such as morphine 5-10mg and ketoralac 15-30mg can be added where indicated. The remaining morphine from the epimorph vial is a

convenient amount (5mg) and minimizes wastage. Splitting the PAI for bilateral TKAs is ineffective and prevents other regional strategies. Better not to use the PAI and then APMS can do a FNB in PACU.

Please consider the risk of post operative delirium or cognitive dysfunction particularly in our elderly population. If there is a risk that the patient could confuse the nurse call button with the PCA button, then you may want to reconsider this modality in this patient. This is a significant patient safety risk that we see repeatedly. The combination of opioids and Gravol is particularly problematic with regards to post operative cognitive dysfunction

Vaginal hysterectomy and lumbar discectomy patients often go home the evening of POD#1, so in these cases an IV PCA is rarely indicated.

For patients on very high doses of chronic opioids, you may consider a PCA with an opioid and ketamine together as an opioid-sparing technique. The staff on APMS can assist you in ordering this. Again, as this is a special solution, it is unlikely that pharmacy will be able to mix it up on weekends or nights.

3. Intrathecal Opioids:

Our policy is to monitor these patients for 24hrs post epimorph. If you are considering discharging your patient home, you must write a specific order that overrides this policy.
The policy for post operative monitoring patients with intrathecal opioids was developed based on a literature review of 100mcg of epimorph and its complications. If you are considering using more than this dose, you must ensure that the patient is appropriately monitored given the increased risk of respiratory depression.
All patients who have received epimorph should have the appropriate PPO filled out and should be added to ACUPAM as this is a medication that lasts beyond the surgical and PACU time and therefore the patient and his/her response to this medication should be followed-up. The APMS team will see him/her in the morning.

4. Special Populations:

Chronic Opioid Use:

Please document (actual dose, not tablets) and order preoperative opioids, especially long acting ones. When discontinuing APMS, please ensure that long acting opioids (including methadone) are continued. When entering a patient into acupam who is on chronic opioid therapy, check the 'chronic opioid use' box under the 'study' section. This allows us an easy mechanism to follow this complex cohort of patients for quality improvement.

Baclofen:

Withdrawal is life-threatening. This medication must be ordered if patient is on it pre-operatively. When discontinuing APMS, please order for it to be continued.