PAIN SERVICE MANUAL
JULY 2016
Welcome to the Pediatric Pain Fellowship. Marybeth Sweeney is the fellowship coordinator and can help answer any administrative questions. This manual can be used as an introduction to the Pain Service. Please do not hesitate to contact Chris Greco with any questions.

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## 1. PAIN TREATMENT SERVICE STAFF

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<tr>
<th>Attendings</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Charles Berde, M.D., Ph.D, Chief, Division of Pain Medicine</td>
<td>55015</td>
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<tr>
<td>Navil Sethna, M.B., Ch.B. – Associate Director, Pain Service</td>
<td>54146</td>
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<tr>
<td>Yuan-Chi Lin, M.D., M.P.H. – Director, Medical Acupuncture Service</td>
<td>63700</td>
<td>0275</td>
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<tr>
<td>Christine Greco, M.D.–Director, Acute Service</td>
<td>54911</td>
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<td>Thomas Mancuso, M.D. – Associate Director, Acute Service</td>
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<td>Susan Sager, M.D.- Attending, Division of Pain Medicine</td>
<td>54147</td>
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<tr>
<td>Alyssa LeBel, M.D. –  Associate Director, Chronic Pain Service</td>
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<td>0922</td>
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<td>Steven Zgleszewski, M.D. – Attending, Division of Pain Medicine</td>
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<td>Dave Casavant, M.D.-  Attending, Division of Pain Medicine</td>
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<td>Pradeep Dinakar, M.D.-  Attending Division of Pain Medicine</td>
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<tr>
<td>Luke Wang, M.D.-  Attending Division of Pain Medicine; Fellowship Director</td>
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<td>Aykut Bilge, M.D.-  Attending Division of Pain Medicine</td>
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<td>Neil Schechter, M.D.- Attending Division of Pain Medicine</td>
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<tr>
<th>Psychologists/Psychiatrists:</th>
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<tr>
<td>Karen Kaczynski, Ph.D. – Psychologist, Chronic Service</td>
<td>52470</td>
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<tr>
<td>Deirdre Logan, Ph.D.-Psychologist, Chronic Service</td>
<td>56694</td>
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<tr>
<td>Laura Simons, PhD.-Psychologist, PPRC</td>
<td>61657</td>
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<tr>
<td>Rachael Coakley, Ph.D.-Psychologist, Chronic Service</td>
<td>57581</td>
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<tr>
<td>Rupa Gambhir, Ph.D. Psychologist, Waltham Headache clinic</td>
<td>61960</td>
<td>9090</td>
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<tr>
<td>Caitlin Conroy, Ph.D.-Psychologist, PPRC</td>
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<td>Christine Sieberg, Ph.D.-Psychologist, PPRC</td>
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<td>Monique Ribeiro,MD.- Psychiatrist</td>
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<th>Nurse Practitioners and Nurses:</th>
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<tr>
<td>Jean Solodiuk, R.N., PhD. - Nurse Manager, Acute Service</td>
<td>52159</td>
<td>2329</td>
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<tr>
<td>Beth Myette, R.N., M.S.N. - Nurse Practitioner, Regional Team</td>
<td>56287</td>
<td>2024</td>
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<tr>
<td>Carol Holt, R.N., M.S.N.- Nurse Practitioner, Acute Service</td>
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<td>4016</td>
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<tr>
<td>Christine Shusterman, R.N., M.S.N. - Nurse Practitioner, Acute Service</td>
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<td>1963</td>
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<td>Victoria Karian, R.N., M.S.N. –Nurse Practitioner, Acute Service</td>
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<td>2504</td>
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<tr>
<td>Yvette Goodridge, RN, MSN.-Nurse Practitioner, Acute Service</td>
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<tr>
<td>Erin Sweet, RN, - Nurse Practitioner, Acute Service</td>
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<td>Lindsay Goodyear, RN-Nurse Practitioner, Acute Service</td>
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<td>John Hayes, RN – Nurse Practitioner, Acute Service</td>
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<td>Brittany Frazer, RN – Nurse Practitioner, Acute Service</td>
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<tr>
<td>Danielle Friedman, RN – Nurse Practitioner, Acute Services</td>
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<td>2451</td>
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<tr>
<td>Gail Deterling, R.N.-Nurse, Chronic Service</td>
<td>58930</td>
<td>2129</td>
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<td>Sheila Steiner, R.N.-Nurse, Chronic Service</td>
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<td>Susan Baccari, RN – Nurse, Chronic Service</td>
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<tr>
<td>Judy Gaughan, RN, MSN – Nurse Coordinator, PPRC</td>
<td>61650</td>
<td>2136</td>
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<tr>
<td>Lori Lazdowsky, R.N.-Nurse, Headache Clinic</td>
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<td><strong>Physical Therapist:</strong></td>
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<tr>
<td>Melinda Hogan, P.T.-Physical therapist, Chronic Service</td>
<td>57705</td>
<td>1117</td>
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<tr>
<td>Lauren Sharis, Physical Therapist, Chronic Service</td>
<td>57705</td>
<td>1013</td>
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<tr>
<td>Sarah Couci, Physical therapist</td>
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| Administrative Staff:                   |      |
| Marybeth Sweeney- Program Administration Manager | 52303 | 5028 |
| Althea King Hankey - Program Administration Manager | 55915 | N/A |
| Shinikha Paige-Administrative Associate, Chronic Service | 52087 | N/A |
| Kynthia Lai - Administrative Associate, Chronic Service | 58521 | N/A |
| Laura Rutherford- Administrative Associate PPRC | 61650 | N/A |
| Elyse Mahoney – Program Coordinator, Headache Clinic | 61962 | N/A |
| Olivia Bou - Patient Experience Rep, Headache Clinic | 61963 | N/A |
| Amanda Nowicki – Sr Administrative Associate, Acupuncture | 63700 | N/A |

| Other Useful Phone Numbers:              |      |
| OR Front Desk                           | 55015 |
| PACU                                    | 57735 |
| Pharmacy 7E                             | 56807 |
| OR Pharmacy                             | 54691 |
| Acute Pain Office FA-30                 | 56287 |
| Acute Pain Office (attending desk) FA-30 | 52476 |
| Acute Surgical Pain Ascom Phone         | 59123 |
| Medical Chronic Ascom Phone             | 83916 |
| Acupuncture Office-Waltham campus        | 781-216-3700 |
| Pediatric Pain Rehabilitation Center    | 781-216-1650 |
| Headache Office                         | 781-216-1962 |
| Operating Rooms                         | 505 Rm# |

**SCHEDULE**

Fellows’ time will be divided between the following clinical areas:

- Acute Inpatient Services
- Chronic clinics
- OR Procedures (BCH, Foxboro)
- Pediatric Pain Rehabilitation Center (PPRC)
• Regional rotation
• Physiatry rotation
• Palliative care rotation
• Psychiatry rotation
• Psychology
• Headache Program
• Pain Management Services at BWH and BIDMC.

You will receive a yearly schedule outlining the timing of your rotations in July.

INPATIENT PAIN SERVICE

The Inpatient Pain Service is a busy consult service with 30—60 patients on the service at any given time. The Inpatient Service is divided into 2 parts: the Medical Inpatient Pain Service and the Surgical Inpatient Pain Service. In general, the types of patients on the Medical Inpatient Pain Service include children with cancer pain, vaso-occlusive crises, chronic pain and other children with pain who have not recently had surgery. Patients who have postoperative pain and all patients on 7S and 8S typically would be cared for by the Surgical Inpatient Pain Service. We have 6 nurse practitioners on the inpatient service: Jean Solodiuk (nurse manager), Carol Holt, Christine Shusterman, Nanci Peters, Erin Sweet, Yvette Goodridge, John Hayes, Lindsay Goodyear, Brittany Fraser and Danielle Friedman. On weekdays, one NP and/or fellow is assigned to the Medical Inpatient Pain Service and one NP and/or fellow is assigned to the Surgical Inpatient Pain Service. On weekends, one NP or fellow covers medical and surgical services. The goals of the Acute Pain Service are to provide excellent pain relief and symptom management. It is essential to attend to symptoms including but not limited to nausea, pruritus, urinary retention, and dysphoria. In many cases, these symptoms are more distressing to patients than is their pain. Since other services are often involved in most patients’ care, good communication to physicians, nurses, other care providers is critical for patient care and safety.

1. STRUCTURE OF THE DAY

Inpatient Pain Service rounds begin at 7:00 AM each morning (except for 8:00 AM on Wednesdays) in the Pain Service Office in FA-304 with sign-out rounds. Please arrive on time so that the nighttime NP or fellow can give sign out and go home. A detailed patient list is printed from Powerchart each morning and evening and is used during sign out and patient rounds. After sign out, surgical inpatient rounds will begin, usually on 10 NorthWest and medical inpatient rounds will begin on 6N. All patients
on the acute service are seen during morning rounds. Rounds are usually finished late morning after which notes are written in Notegen. Afternoons are spent evaluating new consults and troubleshooting problems on patients already rounded on in the morning. In the later morning and early afternoon, you will need to evaluate new consults. There are 4 types of new consults:

a. New postop consults in the PACU
b. Consults on medical patients on the ward
c. Consults on surgical patients on the ward
d. ED consults

2. FELLOW RESPONSIBILITIES

Fellows will be responsible for managing all new consults each day. There will be virtual pager listing in the hospital paging system for “New Pain Consult” pager for each day. If for some reason, you are not available to answer pagers, such as during lectures or while scrubbed in the OR in a procedure, please be sure to transfer the calls to the 7246 (PAIN) pager and let the rest of the team know. It will be important to evaluate each new postop patient as they arrive or shortly after they arrive to the PACU. The OR schedule and preadmits on the pain service list will determine which patients will be new consults. Once consults are seen, fellows should assist with any other daily work that needs to be done such as troubleshooting problems on existing patients, write preadmit notes. Fellows are required to discuss each new consult with the attending. Please be sure to follow patient care guidelines and policies. These can be found at the end of the manual. Periodically during the day, there will be “cardflip” among all members of the team to discuss all new patients, problems on existing patients. Please do all notewriting, chart reviews in the acute office so that patient communication is maintained throughout the day.

Another primary role of the fellow is to collect during the week, the name and MR# of all patients who had peripheral nerve catheters and epidural catheters that were problematic in some way. Such problems could include: catheters that did not cover the intended dermatome, concerns for infection, catheters that were ineffective and removed, catheters not fully functional requiring the addition of systemic opioids. Please email the list to Marybeth Sweeney each Friday.

It is crucial that all new post-op patients on the Pain Service are seen in the PACU before they are transferred to the floor, particularly patients with epidural and
peripheral nerve catheters. All patients with epidural and peripheral nerve catheters should be evaluated and catheters tested if necessary prior to leaving the PACU.

Later in the afternoon, it will be necessary to look over the OR schedule for the next day and decide which patients will likely need the Pain Service postop. The patients are then entered into the “Patient List” which will automatically enter their name into Notegen. The history obtained from the PAEF is then entered into Notegen and saved.

Weekend days are structured similarly to weekdays except there are far fewer new consults and there is 1 NP or fellow on service.

3. CALL RESPONSIBILITIES

Call on the Pain Service is approximately 1-2 calls during the 2 weeks. Night shift weekday call is in-house, 4 PM-7AM (you are off during the day until 4 PM). Daytime call on weekends is from 7 AM-7 PM. Nighttime call on weekends is from 7 PM-7 AM. For daytime weekend call, fellows may take call from home after rounds and notes are written a) as long as there are no active patient issues and b) with the understanding that you must come back into the hospital for all new consults and patient problems. C) you’re able to get back into the hospital within 20 minutes. If you are assigned to a weekend night shift, please call the daytime NP or fellow at 6 PM to get sign out and to determine if there are any active patient issues that would require you to be in the hospital. If the service is quiet, you can take call from home with the understanding that you return to the hospital for any consults or patient problems within 20 minutes. Call rooms are located in the Farley Building on the 5th floor. Please make sure your identification badge allows access to the room before you are on-call. If you encounter problems accessing the call room, please contact Marybeth Sweeney. In general, fellows taking call over the weekend are expected to work the following Monday with the exception of fellows taking overnight call Sunday night.

Please see Policy on Duty Hours for additional information.

On the morning after call, please give a detailed sign-out sheet. In the past there have been incidents related to inadequate sign-out. It is important to give all relevant information to the team who is relieving you. If you are not in the hospital the morning after call, you may call into the Acute Office and give sign-out rounds by phone.

Most of the calls you will receive at night will be from the nurses on the floor, the ICU, or from the PACU. Evaluating a patient in person rather than relying on the nurse to
describe the problem over the phone results in quicker resolution to the problem and better patient care. It is helpful to round on all problem patients and new patients from the OR prior to going to bed/leaving the hospital.

When you are oncall, do not hesitate to call the attending for any question or concerns even for seemingly simple ones. Call the attending for every new patient consult. The attendings are on call for this reason and they expect to be called. You will never be criticized for calling too frequently.

You are expected to call your attending for the following situations:

a. Transfer of patient to the ICU
b. Need for intubation or ventilatory support
c. Cardiac arrest of significant change in hemodynamic status
d. Medication errors
e. Any significant clinical problem requiring an invasive procedure or operation
f. Development of any significant changes, such as excessive sedation, respiratory depression, seizures
g. Failure to provide adequate pain relief after three interventions
h. The need to replace an epidural catheter

Occasionally, you may receive a page from a chronic patient. If they need an appointment in chronic clinic or if they have a non-urgent problem, then ask them to call the chronic clinic the next weekday morning (5-8930). If there any questions, call the attending since they are familiar with most chronic pain patients. If the patient is calling for an opioid refill, ask them to call the chronic clinic in the AM.
4. PAGER

The pain service pager number is 7246 (aka PAIN). The pain pager should be signed out to whichever fellow is assigned to the acute service during the day and the fellow (or nurse practitioner) who is on-call at night. You need to call the hospital operator at x56363 each morning and each evening or go through the hospital intranet to sign out the pager to the appropriate person on call.

5. CODES AND URGENT CALLS

Because we are often present on the floor and because the nurses know us well, we are often called to assist with emergencies or urgent patient calls. Although most of the Pain Service attendings are anesthesiologists, there is a designated code team including anesthesiologists who are fully equipped to handle these emergencies. It is the code team who should be primarily involved with acute patient care emergencies. We can help out as necessary with these emergencies, but please make sure that the code team is involved. Please also notify the patient’s primary service and the acute pain attending of these situations. A code can be called by dialing 5-5555 from any hospital phone.

6. TYPES OF PATIENTS

Most of the patients we care for on the Acute Pain Surgical Service are postsurgical patients. For these patients, we are responsible for writing all analgesics and pain related orders. These orders include but are not limited to opioids, nausea or pruritus medication, and Valium. The Urology Service may write orders for ditropan or Valium for bladder spasm for their patients.

For medical patients, we assist the medical team with analgesics and symptom management, but we do not write orders unless requested to do so by the primary service. We should review a patient’s opioid orders and make helpful suggestions in the progress notes when necessary. The ICU team handles much of the pain management on 7S, 8S, and 11S. However, we often share responsibility of analgesia management with the ICU team. Orders for sedation and systematic analgesia for critically ill patients and for ventilated patients are usually the ICU team’s responsibility, but the pain service will take over pain management once the patient is extubated. For example, an intubated patient who is postop spinal fusion will have PCA orders written, but the ICU team may write for analgesia until the patient is extubated. When in doubt, discuss analgesic and sedation management with the ICU team. With all patients,
communication between services is critical. The Pain Service does take care of all epidural and peripheral nerve catheters, even if the patient is still intubated postoperatively.

7. PAIN NOT CONSISTENT WITH ILLNESS/SURGERY

Pain that is not consistent with the typical course of an illness or surgery may indicate an underlying complication. An example of this is a patient who has a cast that is too tight. In this situation, a patient may have a stable postop course but then develops increasing pain and increasing opioid requirements due to increased swelling. Other causes to consider include infection, bleeding, bladder distension, ileus, and compartment syndrome. Patients with significant pain not consistent with illness or surgery should be assessed for underlying reasons for pain while pain is being treated. The primary service should be called and involved in evaluating the patient.

8. ORDERS

The Pain Service is responsible for writing all pain and symptom management orders for all surgical consults. For consults on medical patients, we write a consultation note with our recommendations and we round on the patients daily but the primary team writes the direct orders. One exception to this is for patients in palliative care requiring terminal sedation. We may also be asked to write initial PCA orders on patients with Sickle crises or cancer pain. Good communication with the medical staff is essential.

9. PATIENT CONTROLLED ANALGESIA (PCA)

Patient Controlled Analgesia (PCA) is the intravenous infusion of opioids, initiated by the patient depressing a button, which activates a computer-controlled infusion pump to deliver a predetermined dose of medication with set limits. To prevent overdosage, there is a lockout period (typically seven minutes) during which a second dose may not be administered. There is usually a maximum cumulative four-hour dosage. Some patients may have a continuous low dose infusion in addition to their PCA dose to help maintain a more constant serum level of medication. PCA allows patients to effectively titrate their analgesia by balancing analgesia against sedation and other side effects.

Most patients receive a PCA with a bolus dose only. In general, continuous infusions are not regularly used in addition to PCA bolus except for a. cancer patients and terminally ill patients b. patients with sickle cell crises c. patients whose sleep is interrupted because of needing to dose the PCA so frequently d. patients whose pain is
not well controlled on a plain PCA bolus dosing only e. certain patients after posterior spine fusions for the first night postop. Typical lockout for bolus dosing is seven minutes. All patients receiving continuous infusions should be have electronic cardiorespiratory monitoring.

Most, but not all, patients are candidates for PCA. Patients aged six years old and older who have appropriate motor and cognitive development are candidates for PCA. Patients who are non-English speaking or who are hearing-impaired are particularly good candidates for PCA since they can take care of their own analgesia and are often under-treated when control is left to others.

Nurse Controlled Analgesia (NCA) is appropriate for preverbal or nonverbal patients or in cases where the patient is physically unable to use PCA. Contraindications are inability to understand the concept of PCA and inability to push the button. Nurse-controlled analgesia (NCA) can be used for patients who are unable to push the button on their own. Typically morphine is used with NCA. When writing the order, indicate NCA on the ordersheet instead of PCA.

Patients with certain neurologic conditions such as Chiari malformation, cerebral palsy, or patients with increased ICP or patients with obstructive sleep apnea from tonsillar hypertrophy may have greater respiratory effects of opioids. A reduced PCA dose should be used for these patients and others at risk for respiratory depression as well as electronic cardiorespiratory monitoring.

Certain equipment is required for PCA. Oxygen supply, ambu-bag, mask, and suction should be at a patient’s bedside. Electronic monitoring is not routinely indicated except in certain cases and when continuous infusion is used.

Several drugs can be used for a PCA. Morphine is usually the first drug of choice, followed by hydromorphone. Fentanyl is primarily used for ICU patients or for oncology patients on 6W or 7W but can be used on wards. Hydromorphone is frequently chosen for patients with renal insufficiency or for those with excessive pruritus from morphine.

10. REGIONAL ANALGESIA

Patients undergoing certain surgical procedures may be amenable to epidural analgesia or peripheral nerve analgesia. Such procedures include thoracotomies, abdominal procedures, and lower extremity orthopedic procedures. Certain nonsurgical patients, such as those with sickle cell crises, cancer pain, chronic pain, or cystic fibrosis, may
also benefit from epidural catheters or peripheral nerve catheters. It is important to consider using a regional technique in non-surgical patients who have severe pain. For example, a patient having a sickle crisis with severe leg pain and having excessive sleepiness and hypoventilation with systemic opioids may benefit from a peripheral nerve catheter. It is always important to discuss this with the hematology service prior to offering this to patients.

Most epidural infusions include a combination of local anesthetics, opioids, and sometimes clonidine. For cervical and upper thoracic epidural analgesia, there may be weakness of the arms and the arm may need to be protected to avoid injury. Urinary retention and leg weakness are rare with thoracic and cervical epidurals; however, vagal reactions (such as bradycardia with hypotension, dizziness, or nausea) can occur with getting up too rapidly. Atropine should be used for severe vagal reactions and bradycardia. Signs of cervico-thoracic sympathetic blockade are normal with upper thoracic and cervical epidurals. Patients with lumbar epidural catheters may experience urinary retention and usually have a Foley in place until the epidural is removed.

Due to the risk of infection, we typically remove epidural catheters on POD#3 unless there are compelling reasons to leave it in longer.

The majority of peripheral nerve catheter infusions are either 0.1% or 0.2% ropivacaine. Most PNC can be safely left in place for 5-7 days. When evaluating a patient with a PNC, it is important to test and to document whether the expected dermatomal coverage is numb.

Please see attached information sheets regarding typical epidural and peripheral nerve infusion rates.

Oxygen supply, ambu-bag, mask, and suction should be at patient’s bedside.

Do not assume an epidural or peripheral catheter is in the proper position when a patient experiences post-op pain. Lumbar or caudal catheters placed in the OR and advanced to a thoracic level have a significant failure rate (30%) and proper position may not have been confirmed intraoperatively with an epidurogram. Options for checking placement of epidural catheters include injecting Omnipaque-180 and obtaining an epidurogram or using a chloroprocaine test dose. Peripheral nerve catheters are typically tested with chloroprocaine but checking a film after injecting Omnipaque-180 can also be done:
a. Epidurogram: A radiopaque solution of Omnipaque 180 (found in the anesthesia work room) of approximately 2 cc injected through the epidural catheter can be used to check placement. An epidurogram will show the location of the catheter tip and will help confirm whether a. the epidural catheter is in the epidural space (lateral view) and if the tip is located at the correct surgical dermatome (AP view). Be sure to reposition wires, leads, etc on the patient to help avoid confusion when interpreting the film.

b. 2-Chloroprocaine test: Administration of 2% chloroprocaine in incremental doses can determine whether an epidural catheter or peripheral nerve catheter is functional. Patients should experience a motor block, pain relief, and a return to baseline vital signs approximately 5-10 minutes after administration. Heart rate, blood pressure, and respiratory status should be monitored throughout the test and for 30 minutes after dosing as patients may experience a high spinal from epidural catheter migration, local anesthetic toxicity, or a decrease in blood pressure from sympathetic block. Airway and resuscitation equipment should be immediately available. See Powerchart Orderform for dosing.

The standard epidural solution for many postsurgical patients is bupivacaine 0.1% with fentanyl 2 mcg/cc. Fentanyl is a lipophilic opioid and has minimal spinal effect unless the tip of the catheter is at the appropriate dermatomal level. Hydromorphone is a hydrophilic opioid used with bupivacaine when the catheter tip is far from the surgical site or when there is an extensive surgical site, such as a large thoracotomy incision. All patients receiving epidural infusions should be placed on a cardiorespiratory monitor, which should continue for 24 hours after the infusion is stopped.

Infants and neonates are at increased risk of amide local anesthetic toxicity due to delayed hepatic enzyme maturation and reduced serum protein binding. Because of the increased risk of amide local anesthetic toxicity and the constraints in using safe local anesthetic infusion rates, we typically use chloroprocaine 1.5% in peripheral nerve and epidural catheters in this age group. We often add clonidine and/or opioid for epidural infusions. Because of the potential for delayed hepatic metabolism of amide local anesthetics in infants and neonates, the maximum epidural bupivacaine infusion rate is 0.2 cc/kg/hr for 48 hours then switching to chloroprocaine 1.5%.

Patients receiving epidural opioids should not routinely receive parenteral or oral opioids. Always review the anesthesia record to determine if an epidural placement was checked intraoperatively and if the patient received any systemic opioids in addition to the epidural. Patients with epidural solutions who also received systemic
opioids should be checked for somnolence/respiratory depression postoperatively. You may need to wait to start their epidural infusions until they are more awake. All patients with epidural catheters require cardiorespiratory monitoring postop.

11. ELECTRONIC MONITORING

Electronic cardiorespiratory monitoring is required for the following patients:
   a. Opioid use (PO-IV-epidural) in patients less than 6 months of age
   b. Former premature infants up to 55 weeks postconception who receive opioids
   c. All patients with epidurals
   d. Selected patients at increased risk such as patients with a history of apnea, significant lung disease, airway problems, neurologic diseases
   e. Opioid naïve patients (on opioids-scheduled or PRN for less than 72 hours) with continuous opioid infusions

12. WEANING FROM OPIOIDS/BENZODIAZEPINES

The Pain Service is often asked to assist with weaning patients from benzodiazepines and opioids. Usually, patients are dependent on these medications for prolonged use with receiving ventilatory support. For the initial consult, it is necessary to determine a) length of time of opioid or benzodiazepine use, total daily doses both max doses and daily dose over past 2 weeks, b) withdrawal signs, c) underlying diagnosis that may increase a patient’s risk to weaning (seizure disorder, unable to tolerate elevations in HR, BP, right heart dysfunction, pulmonary vasoreactivity, etc). Weaning schedule is usually determined by a patient’s risk of weaning and whether they are having ongoing signs of withdrawal as medications are being weaned. Clonidine is often added to help facilitate weaning. For children over a year, we usually wean opioids first. Nurses will document Q4hr WAT scores (see below) which is a withdrawal assessment tool. A patient’s WAT score is used to determine response to weaning and whether a patient can be weaned on a given day. To avoid potential adverse events in sending patients home to continue their wean, the goal is to wean opioids and benzodiazepines to off prior to discharge.
### WITHDRAWAL ASSESSMENT TOOL (WAT-1)

**INSTRUCTIONS**

- **Start WAT-1 scoring from first day of weaning** in patients who have received opioids +/- benzodiazepines by infusion or regular dosing for prolonged periods (e.g., > 5 days). Continue twice daily scoring until 72 hours after last dose.
- The Withdrawal Assessment Tool (WAT-1) should be completed along with SBS at least once per 12 hour shift. The progressive stimulus used in SBS assessment provides a standard stimulus for observing signs of withdrawal.

**Obtain information from patient record (this can be done before or after the stimulus):**

- **Loose/watery stools**: Score 1 if any loose or watery stools documented in past 12 hours; score 0 if none noted.
- **Vomiting/retching/gagging**: Score 1 if any vomiting or spontaneous retching or gagging documented in past 12 hours; score 0 if none noted.
- **Temperature > 37.8°C**: Score 1 if modal (most frequently occurring) temperature documented was greater than 37.8°C in past 12 hours; score 0 if this was not the case.

**2 minute pre-stimulus observation**

- **State**: Score 1 if awake & distress (SBS ≥ +1) observed during 2 mins prior to stimulus; score 0 if asleep or awake & calm/cooperative (SBS ≤ 0).
- **Tremor**: Score 1 if moderate to severe tremor observed during 2 mins prior to stimulus; score 0 if no tremor (or only minor, intermittent tremor).
- **Uncordinated/repetitive movements**: Score 1 if moderate to severe uncoordinated or repetitive movements such as head turning, leg or arm failing or torso arching observed during 2 mins prior to stimulus; score 0 if no (or only mild) uncoordinated or repetitive movements.
- **Yawning or sneezing > 1**: Score 1 if more than 1 yawn or sneeze observed during 2 mins prior to the stimulus; score 0 if 0 to 1 yawn or sneeze.

**1 minute stimulus observation**

- **Startle to touch**: Score 1 if moderate to severe startle occurs when touched during stimulus; score 0 if none (or mild).
- **Muscle tone**: Score 1 if tone increased during stimulus; score 0 if normal.

**Post-stimulus recovery**

- **Time to gain calm state (SBS ≤ 0)**: Score 2 if it takes greater than 5 minutes following stimulus; score 1 if achieved within 2 to 5 minutes; score 0 if achieved in less than 2 minutes.

**Sum the 11 numbers in the column for the total WAT-1 score (0-12).**

---

### Information from patient record, previous 12 hours

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<thead>
<tr>
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<tr>
<td>State</td>
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<td>Any sweating</td>
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<td>Uncordinated/movement</td>
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<tr>
<td>Yawning or sneezing</td>
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**Total Score (0-12)**

**Initials of scorer**

---

Example Protocols for Patients undergoing spine fusions, hip surgery, dorsal rhizotomy:

Pain Protocol for Spine Fusion Patients 3/19/2015

Goals:
1. Provide effective postoperative analgesia
2. Reduce opioid side effects through opioid-sparing plan
3. Early ambulation, discharge on Hospital Day 3 or 4

Preoperatively:
- Web-based/APP cognitive behavioral pain management skills (in progress)
- Family education sheet (in progress)
- Gabapentin dose in preop holding; 10 mg/kg PO x 1 dose

Day 0
1. Acetaminophen IV q 4 hours ATC for 24 hours then switch to PO as soon as taking POs
2. Diazepam IV Q6hrs prn
3. PCA plus continuous
4. Start/continue gabapentin to be taken whenever patients are tolerating liquids; 5 mg/kg/dose TID, for example:
   a. <30 kg gabapentin 100mg TID
   b. 31kg-49kg gabapentin 200mg TID
   c. >50kg gabapentin 300mg TID

Day 1
1. Stop continuous infusion of opioid in AM; continue PCA bolus until ready to take POs which should be later on Day 1. When tolerating POs, discontinue PCA and begin short-acting oral opioids (morphine, hydromorphone, oxycodone). PCA should be stopped at the end of the day on POS #1, unless patient is having nausea or vomiting.
2. For patients (>40 kg) using more than 1mg/kg/24 hours morphine equivalents and who can swallow pills, give MS Contin (or Oxycontin) in addition to short-acting opioids for 1-2 days. For patients unable to swallow pills or those <40 kg and using more than 1 mg/kg/24 hours morphine equivalents, give methadone in addition to short-acting opioids. Long-acting opioids will be discontinued prior to discharge.
3. Change IV Diazepam to PO
   a. Oxycontin dose: 40-60 kg 10 mg po BID, or TID; >60 kg 20 mg po BID
   b. MS Contin dose: 40-50 kg 15mg po TID; >60 mg 30 mg po TID
   c. Methadone dose: 0.050 mg/kg po TID
4. For patients with idiopathic scoliosis: Start 48 hours of Toradol as long as preop BUN/cr are WNL and post op UOP is >1ml/kg/hour. After 48 hours of Toradol change to Ibuprofen.
Pain Protocol for Spine Fusion Patients 3/19/2015

Day 2
1. Continue Gabapentin, short acting opioid and acetaminophen
2. Foley out on POD 2

Day 3
1. Reduce gabapentin to BID in with a plan to d/c gabapentin on Day 3
2. Change acetaminophen to PRN

References
Pain Protocol for PAO Patients and Hip Dislocation 01.08.2015

Goals:
1. Provide effective postoperative analgesia
2. Reduce opioid side effects through opioid-sparing plan
3. Early ambulation, discharge on POD #2 (if possible) or POD #3

Preoperatively:
- Web-based/APP cognitive behavioral pain management skills (in progress)
- Family education sheet (in progress)
- Preoperative screening
- Gabapentin dose in preop holding; approximately 10 mg/kg PO x 1 dose through Powerplan

Day 0
1. Regional or epidural analgesia
2. Acetaminophen po q 6 hours ATC
3. Diazepam po Q6hrs prn
4. Short-acting PO opioid Q4hrs prn (or IV opioids if not taking po)
5. Ketorolac Q6hr RTC x 24 hours
6. Start/continue gabapentin; 5 mg/kg/dose TID:
   a. <30 kg gabapentin 100mg TID
   b. 31kg-49kg gabapentin 200mg TID
   c. >50kg gabapentin 300mg TID

Day 1
1. D/c Ketorolac after 24 hours and change to ibuprofen RTC x 24 hours
2. OOB (if possible) and discuss with patient plan for d/c regional infusion on POD #2

Day 2
1. Stop regional or epidural catheter 6 AM; remove later in AM; assess for need for increased opioids
2. Continue PO acetaminophen ATC, valium q 6hours PRN, short-acting opioids prn
3. Reduce Gabapentin to BID. Stop date on POD #4
4. For patients who have continued pain despite short-acting opioids and non-opioid analgesics, then add long-acting opioid:
   a. Oxycontin dose: 40-60 kg -- 10 mg PO BID, or TID; > 60 kg ---- 20 mg PO BID
   b. MS Contin dose: 40-50 kg--- 15mg PO TID; >60 mg--- 30 mg PO TID
   c. Methadone dose: 0.05 mg/kg PO BID or TID; Adult dosing ----5mg PO BID or TID

Day 3
1. Give acetaminophen PRN, ibuprofen prn, short acting opioid prn.
Post-op Protocol for patients undergoing rhizotomy 04.01.2015

Fentanyl
- Start Fentanyl infusion (via PCA pumps) from just after extubation through the first 24-36 hours post-op. It is important to have the PCA pump up and running.
  - PTS should order Fentanyl PCA at 7AM so the nonstandard concentration of Fentanyl can be prepared. Inform the OR pharmacist when the order is written [5-4691]
  - PCA settings
    ▪ Bolus 0.5mCg/kg
    ▪ Lockout 7 minutes
    ▪ Continuous 1-2mCg/kg/hour
    ▪ 1 hour limit (3 doses of PCA plus continuous infusion)
  - Large doses of fentanyl in a small child require a different concentration (in order to lower the rate that the bolus is infused). For this reason use the 10mCg/ml concentration. Use the PCA/NCA non-standard doing order form and mCg based medication to order the drug.
    ▪ Use the PTS/PACT library to avoid hard limits on the PCA pump
    ▪ Notify the post op RN on 7 South
  - The PCA pump should be set up while the patient is still in the OR so there is no delay between switching from the OR to the unit infusion. If there is a delay, the child usually has severe pain that is difficult to control.
  - Anesthesiologist should call or page the Pain Service (5-9123) approximately 1 hour before the end of the case. The anesthesiologist should obtain the nonstandard Fentanyl cartridge from the OR pharmacy and bring to the PACU. The Pain Service NP (or sometimes PACU nurse) will set up the PCA pump and the anesthesiologist can then bring the PCA pump back to the OR. The PCA pump can be started typically after extubation and transported with the patient to 7S.

- On post-op day 1 wean Fentanyl to 0.5-1mCg/kg/hr depending on patient response. Patients may be able to be moved to the floor while the Fentanyl is weaned down. The child does not need to be awake enough to follow commands in the lower extremities. Just checking that they move the legs to stimulation is adequate.
  - Typically there is no need for additional opioid doses while on the Fentanyl.
- At 6AM on post-op day 2, decreased Fentanyl to 0.25-0.5 mCg/kg/hr, and then stop Fentanyl midday and start oral opioid (usually oxycodone) with Tylenol.

Diazepam (Valium)
- Initial post-op pain is from the nerve stimulation and muscle spasms (minimal operative pain).
- Start Valium 0.2 mg/kg every 6 hours IV for 48 hours post-op (not PRN).
- If uncomfortable during the first 48 hours, it is usually due to muscle spasms and not operative pain. It is usually more effective to first increase the valium frequency to q 4hrs ATC, and if needed increase the valium dose. Increase the Fentanyl only after trying more valium.
• After 48 hours post-op the valium is switched to PRN, from the same standing dose. For example, if the valium was increased up to 4 mg q4 in the early post-op period, then after 48 hours they are switched to 4 mg q 4 PRN. Most kids continue to need the valium 1-2 times a day on POD# 3-4.

• The valium is weaned over the POD # 3-4.

Other management
1. Cardio-respiratory-oxygen saturation monitoring until awake and alert and off fentanyl infusion.
2. Lie flat for 3 days to prevent CSF leak. Can lie on side, back or belly – just keep head flat with butt. On POD# 3 can sit up to eat and use bathroom/bedside commode. On POD# 4 can be up ad lib.
4. Foley out midnight on POD#2 so will void morning of POD# 3.
5. May need supplemental oxygen while on fentanyl.
6. All patients get bowel regimen, and those already on a regimen at home will need an increase post-op. Need to have BM prior to discharge.
7. No NSAIDS for at least the first 24 hours.

Discharge meds/instructions:
Patients are discharged usually with 20 doses of valium 2 mg to use PRN for breakthrough spasms. Use mostly Tylenol for pain. Can have 5-10 doses of oral opioid (oxycodone) for breakthrough. Sponge bath one week, no swimming for 2 weeks. Start PT one week after surgery (POD#7-8).
Algorithm for Local Anesthetic Toxicity

INITIAL RESUSCITATION

☐ Place 100% oxygen on patient via non-rebreather mask (if not already intubated)
☐ Retrieve intralipid 20% from Pyxis (Boston: ICUs, IR, ED, OR, CathLab; Waltham: 3West, OR, PACU, Preop) or call a Code Blue 5-5555 (intralipids stocked in Code Bag and anesthesia fellow bag)
☐ If required, provide high quality CPR and follow PALS/ACLS algorithms
  o Consider activating Code ECMO (ECMO STAT in CVP) to plan for ECMO cannulation if patient is showing signs of cardiovascular collapse.
  o If seizure activity present, use benzodiazepines but do not delay intralipid

INTRALIPID ADMINISTRATION

☐ Calculate Initial bolus dose of intralipid 20% (1.5 mL/kg)
☐ Draw up bolus dose in 60 mL syringe(s) and administer by IV PUSH by hand over 1 minute. Repeat the IV PUSH bolus dose up to more 2 times if cardiac arrest or severe hypotension (total of 3 bolus doses)
☐ Call pharmacy for additional lipids if needed for the infusion.
  o Boston campus: Call pharmacy at 5-7395. Indicate this is STAT and provide nursing unit, patient name and bedspace.
  o Waltham campus: Call pharmacy at 6-1545 during working hours, 7:30a -5:30p or obtain from the nearest Pyxis outlined above for additional lipids if needed. Indicate this is STAT and provide nursing unit, patient name and bedspace.

NO ORDER IS REQUIRED IN POWERCHART FOR PHARMACY TO DISPENSE FOR EMERGENT USE.

☐ Start continuous infusion. Goal is 0.05 g/kg/min (0.25 mL/kg/min) or as close as possible given pump limitations. If symptoms persist, double the infusion rate and continue until clinical improvement.

SEE reverse side for Infusion rates by syringe/bag size

☐ After attaining circulatory stability/alleviation of symptoms, continue the infusion for an additional 10 minutes. Total recommended dose: 10 mL/kg (2 g/kg) intralipids over the first 30 minutes. Infusions not generally recommended beyond 60 minutes.

POST-RESUSCITATION ACTIONS

☐ Consult toxicology.
☐ Monitor for side effects such as: abnormal serum electrolytes, metabolic acidosis, and potential signs of lipid toxicity (pancreatitis, fat emboli, pulmonary toxicity).
## Guidelines for Regional Anesthesia Infusions Information Sheet 04-15-15

<table>
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<th>Catheter</th>
<th>Rate ml/kg/hr</th>
<th>Usual Max Rate</th>
<th>Bolus ml/kg/hr (MAX)</th>
<th>% Ropiva</th>
<th>Sensory distrib</th>
<th>Motor</th>
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## Guideline for Weaning Opioids and Benzodiazepines

### Management of Iatrogenic Withdrawal

**Step 1**
Determine: Target WAT-1 (usually <3, but may be adjusted to the particular patient)  
Document: Baseline WAT-1 then WAT-1 q 12 hours and after any interventions for withdrawal

**Step 2**
Determine order of wean
1. Wean ONE agent at a time.  
2. Wean OPIOID before benzodiazepine for most patients.  
3. Wean BENZODIAZEPINE before opioid for:  
   A. Patients with a source of moderate to severe pain (i.e. surgical pain)  
   B. Infants <1 year and those not able to verbalize symptoms of withdrawal  
   C. Patients at risk for seizure disorders (requiring close observation during benzodiazepine wean)  
4. Wean clonidine last

**Step 3**
Identify Level of Risk to guide pace of wean

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<th>Mechanical ventilation</th>
<th>Very Low</th>
<th>Low</th>
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<td># sedatives during mechanical ventilation</td>
<td>&lt;5 days</td>
<td>≥5-8 days</td>
<td>9-20 days</td>
<td>&gt;20 days</td>
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<td>≤ 2</td>
<td>≤ 2</td>
<td>≤ 3 (May include clonidine)</td>
<td>&gt; 3 medications</td>
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### Management

#### Weaning Plan

<table>
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<tr>
<th>Weaning Plan</th>
<th>No wean</th>
<th>Wean morphine (or short acting opioid) 10% q8h Goal: Off in 3 days</th>
<th>Wean morphine 10% q24h Goal: Off in 3 days</th>
<th>Wean morphine 10% q24h then interval Goal: Off in 10-20 days</th>
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<tbody>
<tr>
<td>If WAT-1 &gt; target</td>
<td>Wean benzo 20% q24h Goal: Off in 5 days</td>
<td>Wean methadone 10% q24h then interval Goal: Off in 10-20 days</td>
<td>Wean benzo 20% q24h Goal: Off in 5 days</td>
<td>Wean Lorazepam 10% q24h Goal: Off in 10 days</td>
</tr>
<tr>
<td>PRN benzo</td>
<td>Wean Clonidine 20% q24h Goal: Off in5 days</td>
<td>Slow wean as clinically indicated.</td>
<td>During opioid wean, if WAT-1 &gt; target then hold one wean step and consider comfort measures, rescue doses then slow wean &amp;/or consider clonidine then consider methadone.</td>
<td>During benzodiazepine wean, if WAT-1 &gt; target then hold one wean step and consider comfort measures, rescue doses of benzodiazepine then slow wean to 10% Q24h.</td>
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**NOTE:**  
*Mild withdrawal is expected* when weaning off medications during a reasonable time period.
Prevention and Management of Epidural Infections

**Aim:** To prevent, evaluate and treat epidural infections

**Background:**
1. Epidurals infections are extremely rare but require emergent evaluation and treatment when present to reduce the risk of loss of function.
2. Knowledge of the risk factors and management of epidural infections are an important part of caring for patients with epidural catheters.
3. If patient can be treated at the fever/back pain stage prior to progression of symptoms then there is a much lower risk of permanent neurologic deficits. Key is vigilance, early detection and treatment.

**Risk factors for epidural infections:**
- Duration of catheter (> 3 days)
- Superficial Infection over insertion site
- Immunocompromised state (including chronic steroid use, cancer)
- Sepsis
- Lack of adherence to sterile technique when placing or care of catheter postop

**To minimize infection risk for patients with epidural catheters:**
- Inspect insertion site at least daily for redness, swelling, pain
- Bedside RNs to inspect q 4 hours and call with any signs of infections
- Remove all epidural catheters on Day #3. Exceptions to this should be discussed with the attending.
- If the insertion site is exposed or if there is a catheter disconnect, then it is best to remove the catheter. When in doubt, call the attending.

**Signs of epidural infection:**
- For cellulitis/tissue infection around insertion site, site will appear red, swollen, and tender to palpation. Fever may/may not be present
- For abscess, signs are fever and back pain. Because the likelihood of permanent paralysis, paresis with an abscess is so great, patients emergently need to have an MRI with contrast treated if an abscess is present.
Evaluation of suspected epidural infections:

- Obtain MRI with contrast emergently. Call Primary Service and Pain Attending with concerns. Call MRI control room 5-6315 to discuss with tech to get scan ASAP.
- If MRI shows abscess call Pain Attending and Primary Service
- Call Neurosurgery Consult ASAP to determine whether debridement is necessary (neurologic signs)
- Call Infectious Disease to inquire about appropriate antibiotic therapy
- Obtain blood cultures, NP swabs for organism
- Order antibiotics and ask floor nurse to administer ASAP
- Order Q2 hour neurologic checks and communicate plan to RN

Treatment of epidural abscess and local infection:

- If patients have neurologic symptoms, then they need to be brought to the OR for emergent decompression. Literature shows there is a window of at most 8 hours before neurologic deficits become permanent

For epidural abscess, IV antibiotic therapy, usually for 4 weeks but is determined in consultation with Infectious Disease
- Treatment of cellulitis/ skin infection with no evidence of epidural abscess consists of 10 days of antibiotics, IV/PO.
CHRONIC PAIN CLINIC

The Chronic Pain Clinic is a multidisciplinary clinic staffed by pain physicians, physical therapists, psychologists and a psychiatrist. New patient evaluations are seen in the mornings and follow-up patients are seen in the afternoon. Each new patient is evaluated by the physician team and the physical therapist together. For all patients, new and follow-ups, the fellow should enter information into Meaningful Use document in Powerchart and reconcile medications. There is a wide variety of type of patients seen including those with neuropathic pain conditions, back pain, limb pains, pelvic pain and abdominal pain. It is mandatory that each fellow establish their own clinic patient population for whom they will primarily be responsible. Follow up appointments will be scheduled for the fellow and all communication from the administrative staff and nursing staff will be directed to the primary fellow. You should expect to choose approximately 2-3 patients per week to follow longitudinally in chronic clinic. You should send an email to the Fellow covering clinic to notify administrative staff and nursing staff that you will be including a particular patient in your chronic clinic patient group. Many patients with cancer pain will be seen at the Jimmy Fund in the Dana Farber Cancer Institute. At times, urgent patient evaluations are sometimes seen in various clinics, particularly Orthopedic Clinic or are urgently scheduled to be seen in chronic pain clinic. Please be sure to bring a stethoscope, reflex hammer, and any other equipment you might need to conduct a thorough physical exam. You are expected to write a comprehensive history and physical exam in a word document and email it to the attending at the end of each clinic day.

PEDIATRIC PAIN REHABILITATION CENTER (PPRC)

The PPRC is a hospital day program for patients with refractory chronic pain located at 9 Hope Ave at Children’s Hospital in Waltham. Patients are functionally disabled from chronic back pain, headaches, abdominal pain, limb pains and neuropathic pain. The program focuses on a functional rehabilitative approach that includes individual and group treatment with physical therapy, occupational therapy, psychology, and the physician and nursing team. Most patients attend the program for 3-4 weeks however each patient has an individualized treatment program with varying lengths of stay. New patients are admitted on Mondays and discharge meetings and “graduations” occur on Fridays. When you are scheduled for the PPRC, please arrive at 7:45 to attend team meeting at 7:50.

HEADACHE CLINIC

The Headache Program is a multidisciplinary program for patients with chronic headaches. Alyssa LeBel, who is a pediatric neurologist and pain physician as well as a nurse practitioner, nurse, and a psychologist. It is on the 1st Floor of Children’s Hospital, Waltham.

LECTURES AND JOURNAL CLUB

There is time set aside almost every weekday at 3 PM for didactic lessons. Attendance is mandatory for all lectures, Grand Rounds, journal clubs and conferences. The lectures are usually held in the Pain Service Conference Room (FA-306) and are given by the
pain service physicians, psychologists, and other physicians. There is an online videotaped lecture series through Open Pediatrics. You will receive information on how to join and view the lectures. There is also an electronic library of relevant articles to which you will receive a link. One fellow per month will be assigned to give journal club. **Marybeth Sweeney** can help you with any administrative need for journal clubs such as copying and distributing articles. On Wednesdays, pain fellows attend the Anesthesia Grand Rounds at 7am in the Enders Auditorium.

Fellows will be expected to give one or two Friday morning Fellow Lectures to the Anesthesia Department during their 6-month stay at Children’s. **Please discuss your topic with Christine Greco or Chuck Berde at least 1 month prior to the date of your fellow lecture.** The Fellow Lecture is expected to be a high quality, evidence-based lecture. Fellow Lectures are held each Friday morning at 6:30 AM in the Perioperative Nurses Conference Room. Drs. Greco and or Berde will serve as your mentors. Marybeth Sweeney can help with any administrative needs, power point programs. Children’s Hospital also has an outstanding media service with staff whom can further assist you if necessary.

Fellows will be assigned to be the lead speaker in 2-3 Pain Quality Assurance Conferences. These are held every Tuesday morning at 6:30 Am in the Perioperative Nurses Conference Room and are attended by the Department of Anesthesia. Fellows are expected to review all adverse events related to pain and present suggested practice improvement guidelines. Dr. Aykut Bilge will serve as your mentor for these. Dr. Zgleszeweski will assist with access to data bases for adverse events.

You will receive a lecture schedule, dates of you Fellow Lecture and your QA conference dates from Marybeth Sweeney. Please check to make sure you have no scheduling conflicts.

**5. EVALUATION PROCESS**

Fellows will be evaluated based on the following ACGME core competency requirements: Patient Care, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Professionalism, Systems-based Practice.

**Patient Care:** Fellows are expected to provide patient care that is compassionate, appropriate and effective for the treatment of diverse pain conditions. Fellows are
expected to show excellence in clinical judgment, reliability in patient care, and the ability to construct an organized, thoughtful treatment plan for all types of patients. Competency in patient care is evaluated by direct observation in all patient care areas, including inpatient wards, clinics, procedure rooms, and operating rooms. In addition, fellow performance will also be evaluated through small group discussions, structured case discussion, Fellows Lecture, and Pain Quality Assurance Conferences and review of patient dictations. Patient care will also be assessed through fellow’s performance in the Anesthesia Crisis Management Simulator. Fellows’ performance in patient care will be evaluated by attending pain physicians, physiatrists, psychiatrists, psychologists, and nurse practitioners.

**Medical Knowledge**: Fellows are expected to attend and participate in all scheduled lectures, Grand Rounds, small group discussions, and Quality Assurance Conferences. Fellows are expected to use the didactic lecture topics as a guide in their readings of textbooks and current literature; fellows are expected to apply their knowledge to evidence-based patient care. Medical knowledge will be evaluated through direct observation by faculty working with fellows in clinics, wards, and during procedures. Medical Knowledge will also be evaluated through fellows participation in small group discussions and global assessments. Fellows performance in medical knowledge will be evaluated by attending physicians, physiatrists, psychiatrists, psychologists, and nurse practitioners.

**Practice-based Learning and Improvement**: Fellows are expected to become life-long self-learners. Fellows are expected to be able to demonstrate the ability to analyze literature and continuously evaluate their care of patients. They must demonstrate the ability to effectively educate patients, families, and health care workers. They must demonstrate the ability to analyze practices through quality assurance methods and apply to current practice changes. Fellows’ performance in practice-based learning and improvement will be evaluated by their participation in small group discussions, case conferences, Anesthesia Crisis Management Simulator, and through global assessments. Fellows performance will also be evaluated by their work on a QA project during the year. Fellows performance in practice-based learning and improvement will be evaluated by attending pain physicians, physiatrists, psychiatrists, psychologists, and nurse practitioners.

**Interpersonal and Communication Skills**: Fellows are expected to communicate effectively with patients and families of diverse cultural and socioeconomic backgrounds. Fellows are also expected to display leadership qualities and work/communicate effectively to other health care providers. Fellows’ interpersonal skills and the ability to communicate effectively will be assessed through direct
observation on inpatient wards, outpatient clinics, and procedural areas. Skills will also be evaluated through fellows’ participation in Fellows Lecture and QA Conferences, participation in the Simulator, and participation in the Program to Enhance Relational Communication Skills (PERCS) program. Fellows’ performance in interpersonal and communication skills will be evaluated by attending pain physicians, physiatrists, psychiatrists, psychologists, and nurse practitioners.

**Professionalism**: Fellows are expected to demonstrate compassion, integrity, accountability and respect in all aspects. They are expected to display responsiveness to patients of all backgrounds. Fellows’ professionalism will be evaluated by direct observation in all clinical and research activities and will be evaluated by pain physicians, nurse practitioners, psychologists, physiatrists, and psychiatrists.

**Systems-based Practice**: Fellows are expected to demonstrate an understanding of practicing within a larger system of health care. They are expected to demonstrate the ability to coordinate patient care, advocate for quality patient care, and work effectively with other health care providers. Performance in systems-based practice will primarily be evaluated through direct observations on the inpatient wards, outpatient clinics, procedural areas and During the “Chief” month at the BWH. Fellows’ performance in systems-based practice will be evaluated by attending pain physicians, physiatrists, psychiatrists, psychologists, and nurse practitioners.

All fellows will be evaluated by pain physicians, nurse practitioners, and psychologists, physiatrists, and physical therapists. You will also be evaluated by physicians for each rotation: Palliative Care, Psychiatry, Regional, BWH, and BIDMC. You will also receive a final evaluation at the end of your fellowship.

In addition to formal evaluations, you may also receive ongoing feedback from attendings throughout your fellowship. Any deficiencies in any areas will be addressed and suggestions for improvements given such as additional readings or didactic sessions. Please see attached Policy on Remediation for more specifics.

Fellows will also be asked to evaluate faculty monthly using JVals. **Please be aware that these evaluations are completely confidential and anonymous.** At the end of the year, you will be asked to evaluate the program as a whole, which is also confidential and anonymous.

We would like and encourage you to give us informal feedback as the year progresses so that we can make ongoing improvements to the fellowship program.
Dr. Greco or Berde will serve as fellows’ advisors and will provide constructive feedback on performance and are available to address special problems or concerns.

Children’s Hospital offers a GME Ombudsman resource through the Office of GME. The Ombudsman is available to fellows and faculty to assist in the mediation of training issues that, for whatever reason, cannot be resolved at the program level.

In addition, Children’s Hospital Boston has established a program called the Office for Clinician Support (OCS.) The OCS offers a free, confidential counseling service for all trainees. It provides clinicians with guidance on how to resolve work-life issues and a forum to openly voice concerns. The OCS is staffed by psychiatrists from the hospital psychiatry consultation service and support is available to clinicians around the clock, seven days a week.

Contact information for this program is available in the Children’s Hospital Internal Web Page or by calling 617 355-6705.

VACATION
MOONLIGHTING
Please see attached moonlighting policy.