

KCI Survival Guide - Draft 1: 04-2018

**Please email any changes, updates or corrections to nalkoura@med.wayne.edu*

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Workflow:

1. You may get some admissions from the NF MD or NP. If you will be on-call tomorrow. You need to arrive at 7am, get sign out about the overnight patients and assess them (make sure the night person's plan is legit - level of thoroughness depends on who is covering).
2. Admission pager for call days is **93307**
3. Signout/Work room is on 10WS behind the elevators: **Room 10356; the code is 160827***
4. Go see patients, just like Harper Floors
5. Day schedule:
 1. 8:30/9am round w/ attending. Some will do split rounds, others won't. Your attending is Dr. Roxas, he does split rounds. Usually ready by 09:00.
 2. When you are done with rounds, your senior should contact Onc and Heme and run the list with them. You need to touch bases with them daily. All discharges needed their blessing.
 3. Run the list with CM/SW on each floor (10,9,8,5) and discuss DISPO
 4. Run the list with your team and work on discharges
 5. Sign out at 7PM on call days and 5PM on post-call days. Call is Q2.
 6. MORNING LABS: order them for 5AM and "No" for nurse collect; day time labs order "No" for nurse collect. Lab is very responsive comes 5 times per day (5:30, 9:30, 12:00, 16:00, 22:00).
 - i. If it is a STAT lab, order Nurse collect: "Yes"

Pearls:

7. Neutropenic fever -> treat empirically w/ cefepime monotherapy, may add vanc if their port looks infected; Palliative care is your best friend = KCC Supportive Care.
8. Tumor Lysis Syndrome: If suspecting obtain Q8-Q12 H CBC, BMP, Mg, Phos, uric acid, LDH and start on Allopurinol 300 mg daily
9. Heme/Onc likes to pan-consult as pt's can easily tip over to critical, don't fight it :-)
10. Cord Compression -> consult Neurosurgery STAT, get MRIs and likely start Dexamethasone IV 4 mg q6hrs (10 mg IV push loading dose).
11. Leukemias -> monitor for DIC (fibrinogen); Lymphomas -> monitor for TLS (uric acid, calcium, K, Mg, Phos); Solid tumors -> monitor for infections and medication induced adrenal insufficiency. Look out for Hyperviscosity/hyperdifferentiation in AML.
12. Most patients are dehydrated, constipated, and in chronic pain. Consult Supportive Services KCC -> Dr. Stellini and Dr. Newman will become your favorite people in the world.
13. Work up electrolyte disorders -> many have SIADH and hyponatremia
14. A list of important contacts at on the walls of the resident room. Use them. If you need any thoracentesis or paracentesis -> call ACC on the 9th floor, they are happy to help. Obtain PT/INR, aPTT before consulting them unless emergent. They like us to hold SubQ Heparin for 12 hours before procedure.

KCI Team Lists:

KCI IM Team 1

KCI IM Team 2

HA-Oncology Inpatient

HA-Hematology Malignancies

- Seniors should add any new pt's to respective Heme/Onc lists.

Contact numbers:

DRH/HUH 313-**745**-****

KCI 313-**576**-####

Floors:

10WN **9229**

9WN **9180**

8WN **9120**

5WN **9213**

ACC (For thoracentesis, paracentesis). M-F 7AM-5PM. **8141**

IVDT (IV Team) **6649**

Pharmacy (IP) 8814

Pharmacy (OP) ****

Daval - ***Clinical pharmacist*** 90899: 8806

Cross coverage pager: **30406**

Admission pager **93307**

Signout/Work room is on 10WS behind the elevators: **Room 10356; the code is 160827***

Bed control: **9016**, 2nd 9185 - can call within 30 mins of being notified of pt and they can provide

KCI FIN. *Note without a KCI FIN you cannot put in any orders or notes. FIN 8600 = KCI prefix

10 WS Fax **313-745-9655** (closest fax to 10WN SO/workroom). You often have to get pt's pharmacy to fax meds because documented Med history is often inaccurate.

Relevant Harper Hospital Units and Phone #s

Pharmacy 313-745-8216

Lab Pathology 58555

Microbiology 313-933-0700

Hematology Lab 54714, 54734

Lab 52535

Harper STAT Lab 58555, 50837
Core lab 313-745-4741
Chem lab 313-745-4598
PCR lab 313-745-5449

Lab collections times:

5:30, 9:30, 12:00, 16:00, 22:00

Unless a STAT lab, all labs if possible should be ordered under **Nurse Collect: No**. Lab is very responsive.

Common orders:

General Admission: KCC Inpatient admission

Observation: Admit to Outpatient: Observation Medical/Surgical

VTE prophylaxis: Pharmacy prefers Fodaparinux 2.5 mg daily as opposed to SubQ Heparin due to concerns of Chemotherapy or Sepsis-induced thrombocytopenia

Common Consults: Nearly all pts will need these

Palliative care = KCC Supportive Services - write Palliative or Supportive Care in comments

Social Work

PT/OT

Less common consults:

MICU = Critical Care

KCC IVDT - Port = IV team at KCI

Speech/Swallow: Consult to Speech which will alert Dr Simpson PhD for Swallow Eval

Psychiatry: Dr. M. Morreale 248-505-4015 (pager 1526)

Mediport or PICC Consult IR

PM&R: Consult Physician: Horn, Lawrence. Do not consult PM&R

Blood transfusions/platelet transfusions:

- Pt will likely not have consent ready to go
- Irradiated PRBCs or Platelets for non-solid cancers (Hematologic malignancies)
 - Special processing: Irradiated. Do for both the transfusion and cross-match

Code status change:

- Resuscitation order
- Resuscitation note

Sample Resuscitation note template:

Discussed code status extensively with **PT NAME AM/PM?**; we discussed what pt enjoys doing, what pt's goals are in life, pt's understanding of current medical conditions, prognosis and disease course as well as current understanding of CPR/intubation and re-educated pt on what

these processes entail and the likely outcomes (death vs survival vs. meaningful survival). We also discussed cardiac and vasoactive medications and various ventilation options utilized during these processes. Further, we discussed the extremely low likelihood of surviving CPR, being alert and leading a meaningful life. Pt stated he understood presenting illness, resuscitation options and demonstrated understanding via teach-back. Pt clearly stated the **he/she** did not want to receive chest compressions, cardiac or vasoactive medications, intubation or artificial ventilation if his heart or lungs were to stop functioning spontaneously. However patient reports **he/she** is willing to have intubation occur for surgical procedures that require intubation for a temporary amount of time.

Treatment / Management

Resuscitation Status Order: Current Order: I have updated the code status EMR order to reflect the decision in this note.

Created by

Name

Title, Service, Pager#

Discharge orders and post-discharge orders

- All Post-discharge orders like DME, Home based PT/OT, Skilled Nursing, etc... need to be completed on paper script, signed by attending

Social Work/Case Management

- SW's consistently assigned to their respective unit unlike DRH/HUH.

NAME	PHONE	PAGER NUMBER	NOTES
Tori Bright	8843	9846	5WN
Vanesa Escobar	8524	92706	9WN
Cheryl Grey	8920	97400	BMT coverage

Camilla Doniver	9078	92137	8WN
Truvella Murray	9077	6178	Float coverage
Nancy Iles	8865	6004	Clinic coverage
Julia Greenbaum	9079	6007	Clinic coverage
Sarah Burstein	8641	93481	Clinic coverage
Kathleen Hardy (Farmington Hills)	(248) 538- 4712	#00001	Clinic coverage
Hardip Singh	9075	0427	9WN
Deb Boumediene	9076	6456	10/8WN
Mary Devon Bement	9058	30403	10WN

Mary Wilson	8031	2106	5WN
Brittany Fulford	9282	9485	Float coverage
Contingent			
Ann Luberski		6685	
Lajeane Partmon			
Steve Rea	9315	92512	

Practical Pearls for Pain (and Poop) Palliation

Tips for safe and effective pain treatment and analgesic use

Compiled by:
Michael Stellini M.D., M.S., FACP, FAAHPM

Decide if the pain is *Acute*, *Chronic Malignant* or *Chronic-Non Malignant* in nature. Consider the *Physical*, *Psychological* and *Spiritual* components of the pain. Is the pain somatic, visceral or neuropathic in nature? Consider a multi-disciplinary approach to pain assessment and treatment. Employ non-pharmacological treatments first, e.g. exercise, physical therapy, heat, counseling, imagery, biofeedback, massage, acupuncture, chiropractic (has shown efficacy in acute low back pain for example; be wary of cervical spine manipulation) Treat or remove underlying causes of pain.

(This is not necessarily an exhaustive list)

ANALGESICS - Non-opioid

Acetaminophen Properties: analgesic, anti pyretic

Adverse affects: Liver injury (in patients with normal livers, 4gm per day is the recommended maximum; lower doses in chronic

Alcohol users and those with liver impairment. Warn patients about the ubiquitous presence of APAP in OTC products.

NSAIDS

Properties: analgesic, anti-inflammatory, anti-pyretic

Adverse effects: GI ulcers, renal injury, anti-platelet, may increase CV

risks, Na retention/hypertension (sulindac is probably best in HTN)

Individuals have differing response to individual NSAIDS; try more than one

Ketorolac is a unique NSAID available orally and for IV administration; only use for up to five days; IV Ketorolac 30 mg is about equi-analgesic to IV morphine 5 mg

COX 2 Inhibitor (celecoxib is the only one currently on the market) Some evidence of lower GI risks; no anti-platelet effect; there is on-going study of cardiovascular risks (manufacturer says risks = to naproxen); renal risks as with NSAIDS

Topical – NSAIDS, capsaicin, lidocaine (gel or patch)

NEUROPATHIC PAIN Several drugs are used for treatment of neuropathic pain.

Pregabalin (Lyrica) – an anti-seizure medication also approved for diabetic neuropathic pain and post-herpetic neuralgia; there is a potential for abuse with this drug. (FDA approval)

Gabapentin (Neurontin) – max dose 3600mg/day

Duloxetine (Cymbalta) – an SNRI anti-anxiety, anti-depressant also approved for treatment of diabetic neuropathic pain and fibromyalgia. (FDA approval)

Venlafaxine (Effexor) – not FDA approved, but probably effective.

Lidoderm patches – FDA approved for post-herpetic neuralgia. May be useful in other conditions.

Tramadol is a unique drug which is a mu-receptor (opioid) agonist and also has SNRI properties, FDA approved for the treatment of pain and is commonly used for neuropathic pain. It has multiple drug-drug interactions because of its CYP metabolism and it can lower seizure thresholds. There is potential for abuse with Tramadol as with other mu-agonists.

Tapentadol - similar properties to tramadol; longer half-life. FDA approved for neuropathic pain

Capsaicin

BONE METASTASES Consider NSAIDS or glucocorticoids or bis-phosphanates

Liver capsule stretch – Glucocorticoids

NOTE on Glucocorticoids:

Glucocorticoids may be useful for a number of distressful symptoms. In the setting of advanced illness with limited life expectancy, concerns for side effects are less.

- Increase appetite (don't prolong life) - improved breathing in some - pain control (bone met or inflammatory component, liver capsule)
- Improved mood or sense of well being (or psychosis) - stimulant

Monitor blood glucose initially – elevation not common in non-diabetic patients.

Caution in patients still on chemotherapy or immune therapy

OPIOID PEARLS

Consider non-opioids first. There is controversy about the use of opioids for chronic non-malignant pain. The guidelines which follow are for safe use of opioids when the decision to use them has been made. Issues of addiction and diversion are not in this scope, but should be considered.

****For conversions from one opioid to another or one route to another, use the chart below.**

- When changing from one drug to another, calculate the dose of new drug, then decrease the dose by 25-50% to account for *incomplete cross-tolerance*.
- DO NOT start opioid naïve patients on long acting opioid preps until opioid needs and tolerability have been established with PRN use of short acting forms.
- DO NOT start patients with acute pain on long acting opioids.
- For patients with chronic pain, use one long acting drug, and one short acting drug for breakthrough.
When using orals, the breakthrough dose should be 10-20% of the total daily dose of long acting.
- Methadone has an intrinsically long half-life and has many useful properties, but should be used only by trained and experienced practitioners. Can prolong QTc. (many other drugs used in palliative care also prolong QTc). Should not dose escalate in fewer than five days. Available in tab or liquid. NMDA and opioid receptor activity.
- Oral opioids, except methadone and extended release versions, have a duration of action of 3-4 hours.
- Opioid rotation (changing from one drug to another) may be useful if not getting response to a high dose of a drug and to decrease accumulation of potentially toxic metabolites.
- IV opioids work quickly and may have a shorter duration of action than in the oral route.
- High doses of opioids can sometimes cause myoclonus and hyperalgesia states.
- DO NOT use meperidine.
- 1mg IV hydromorphone = 7 mg IV morphine!!
- 2mg IV morphine is less potent than hydrocodone 7.5 mg.
- Start low, re-assess, adjust. Monitor for side effects and BMs.
- If you need to use an antagonist such as **naloxone**, dilute it and administer slowly until effect; naloxone is short acting and will wear off before extended release drug delivery tablet/capsule is cleared!

Drug	IV/IM/SQ	Oral	Comments	24 hr oral morphine dose (mg)	Fentanyl patch dose (mcg/hr)
Morphine	10mg	30mg	Renally excreted	30-59	12
Hydrocodone	NA	30	Only available in combo with APAP or Ibuprofen (except new ER version)	60-134	25
Oxycodone	NA	20	Long acting prep is Oxycontin	135-224	50
Codeine	130	300	IV use and oral doses above 60mg not recommended	225-314	75
Hydromorphone	1.5	7.5	Common trade name is Dilaudid	315-404	100
Fentanyl	0.1		Oral forms are available as lollipops and lozenges.		

Do not change fentanyl patch dose in fewer than 48 hours.

Ketamine may be used for refractory, opioid non-responsive pain. Get a Consult!

Long-acting forms of morphine, oxycodone, and fentanyl patches are expensive. Patients should be aware.

CONSTIPATION

- **ALWAYS** use a bowel regimen for patients with extended use of opioids (stimulant such as senna [2 tabs BID]. NEVER docusate alone. Other agents: Bisacodyl oral or rectal (irritant), polyethylene glycol, lactulose, magnesium citrate, Prune Juice.
- For opioid induced constipation not responsive to usual remedies, consider methylnaltrexone.

For pain not controlled with opioids and other analgesics because of intolerable side effects, consider consultation to an anesthesiologist pain specialist for invasive procedures such as plexus block or neuraxial analgesic administration (epi-dural or intra-theal)