Chief Resident Council
2018-2019
QI Project Year-End Report

Presented by Council Co-Chairs Adrienne Moraff, MD and Laura Prolo, MD, PhD
on behalf of the Council
The Chief Residents of the Class of 2018-2019 are proud to present their work in resident-identified vital needs gaps this year. Based on discussions during our council sessions and discussions with each service by their respective chief residents, two important themes emerged. Part I of this report addresses interdepartmental communication needs, with each service providing an assessment of their challenges in working with other services to provide exceptional patient care. Part II is a resident-led assessment of the number of residents that need access to a safe place to rest from extended clinical duty hours, including 24-hour call shifts and home call. We present them here. We hope these comprehensive needs assessments can serve as a launch pad for further quality improvement projects and increase awareness of varying service needs.

**Part I: Comprehensive Communication Challenge Assessment**

The Chief Residents of the Class of 2018-2019 have worked together to identify recurrent challenge points in communication with other services in the hospital. Our goal is for this needs assessment to serve as a launch point for educating our peers on our mutual needs with the goal of improving communication among our care teams to provide the safest and most effective care possible in an environment that prioritizes compassion and understanding for both patients and providers.

Each service worked to identify areas that have made their communication with other services challenging. As might be expected, each had a unique set of responses, though there were also common threads. For consulting services, there is specific information that each subspecialty needs to make the most appropriate assessment of the patient's relative acuity at the time of the consult, facilitating safe triage for patients. For many teams, including the medicine and pediatrics services, there was poor understanding from other departments of the structure of the various teams, leading to difficulties in communication on all sides for recommendations and patient care plans.

An additional point on the communication project that was identified was the desire to integrate the MedWiki project produced the Chief Resident Council of 2013-2014. This excellent resource is the product of the combined efforts of our represented service line chiefs, but has fallen into disuse, primarily due to lack of awareness. There is a need to integrate the MedWiki into resident workflow to transform it into a living, readily accessible resource.

Participation rate:

**Part II: Overnight call burden assessment**

Part II represents a resident-led assessment of the number of residents in a given day who are assigned to 24-hour call, nightfloat, home call, or any other type of call. This report addresses concerns expressed by residents regarding the inability to find an available callroom to rest after a prolonged work period. In the interest of keeping residents and patients safe from fatigue-related problems, we voted to start with an assessment of the existing resources versus

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needs for call rooms. There are currently 29 GME call rooms, as well as additional single
service-based call rooms for the MICU and CCU teams, for a known total of 31 call rooms within
Stanford Main. For the purposes of this assessment, nightfloat residents were not counted
against the number of necessary call rooms per night, but there is increasing data to suggest
that night-based shift workers may suffer from greater fatigue despite working the same number
of hours as a day-based shift worker.

Participation rate:

Part III: Recommended next steps
Part I: Comprehensive Communication Challenge Assessment

Anesthesia:
Dermatology
Emergency Medicine
Medicine
Neurology & Child Neurology
Obstetrics & Gynecology
Ophthalmology:
Orthopedic surgery
Physical Medicine & Rehabilitation
Otolaryngology
Pathology
Pediatrics:
Psychiatry
Radiation Oncology
Radiology
Plastic Surgery
General Surgery
Urology:
Child Psychiatry:
Neurosurgery
Thoracic Surgery - Integrated and Traditional
Anesthesia:

Chiefs: James McAvoy, Pandora Chua, Lynn Ngai, Alexandra Ruan, Gregory Atkinson, Ashley Black

Anesthesia residents cover a wide range of service in the hospital, including the airway pager, the OR, and inpatient acute pain service. We often deal with very high acuity patients in emergency situations and having just a little bit of information about the patient can make a huge difference in our ability to safely care for them!

Stat airway (airway pager):
- Please know the patient’s code status is not DNI or DNR/DNI. We want to make sure the care provided is in line with the patient’s documented wishes, even in the stress of an urgent situation.
- Unless there are contraindications, try a non-invasive airway support method before calling for intubation
  - E.g. BiPAP, HFNC
  - But please do not wait until the patient is hypoxic before calling
- When you call, please let us know:
  - NPO status
  - Current oxygen requirement
  - Any prior known intubation (search “intubation” in the patient’s chart in Epic!)
  - Current IV access
  - Any major electrolyte abnormalities
- Please have RT at bedside ready with the ventilator so the patient can be hooked up immediately upon intubation.

Booking an emergent OR case (main OR service)
- Is this case emergent or urgent?
- Is the patient/ family consented or not applicable (in emergencies)?
- If active bleeding or possible need for transfusion, please get blood consent and ensure type & screen/ verification has been sent.
- Please do not roll back to the OR/ preop holding area until case has been booked and anesthesia/ OR staff have given the green light. Safety can be compromised if the patient arrives before necessary equipment/ personnel are available.

Regional and acute pain service consult
- Is this patient a chronic pain patient? If so, is he/ she followed at Stanford?
- What has been tried so far?
- If you need a regional block, please give information as to whether or not the patient is on blood thinners, and when he/ she last took them.

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Please be judicious with opioids and other non-opioid analgesics before calling for an acute pain consult, but do not wait until pain is uncontrolled before calling for pain help!

Dermatology
Pending

Emergency Medicine
Pending

Medicine
Navigating the many medicine services in the hospital can be confusing. Here is a quick guide to the organizational structure of some of the medicine services in the hospital.

House staff (resident/fellow) services:
- Cardiology - Arrhythmias, NSTEMI/STEMI, congenital heart disease, valvular heart disease, syncope
- CCU/Heart Failure - Decompensated heart failure patients (both stable and unstable)
- General Medicine
- Med 8 - Inpatient hematology (Med 8) - Acute/chronic leukemias, myeloproliferative neoplasms
- Med 10 - Inpatient oncology (Med 10) - lymphoma and solid tumor patients

The following services are attending and APP only:
- Hepatology / GI - Limited to liver transplant patients and functional GI patients
- Bone Marrow Transplant
- Pulmonary Hypertension
- Lung Transplant
- Renal Transplant
- Heart Transplant
- Med 9 - Inpatient hematology/oncology (NP service)

Neurology & Child Neurology

Neurology Consultation Guidelines

Neurologic complaints can be difficult to evaluate under the best of circumstances and we want to help! In order for us to best triage patients and be able to provide the most accurate

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recommendations, it is very helpful for the primary team to have obtained as thorough a history as possible, particularly about the patient’s neurologic function prior to the onset of their current signs and symptoms (including cognition, gait, and existing focal deficits), and to have done a neurologic exam. It is most helpful for us to talk to the person who performed the neurologic exam, so please keep that in mind when calling.

As with all consults, asking a focused consult question will enable us to provide a helpful answer, e.g. “Does this epilepsy patient with a breakthrough seizure need further workup or change in medication?” Please be flexible to consider alternatives to formal inpatient consultation such as phone advice or expedited outpatient referral, as not all neurologic presentations require inpatient admission.

For stroke codes and emergent situations where time is brain, however, please call us ASAP and we will work with you on developing these things in tandem with starting emergent therapy! For all other situations, please help us answer your question by letting us know the following, in addition to the neurologic exam and baseline neurologic function:

1. Please review records in Epic and CareEverywhere, as well as discuss with the patient/family, to see if there have been any prior inpatient or outpatient neurological evaluations and the name/location of outpatient neurologist(s) if applicable.
2. Please be able to provide an accurate medication report including the names/dosages of outpatient neurological medications if applicable, and administered inpatient medications, especially any with potential psychotropic effects.
3. If the patient cannot provide a clear history due to language barrier or neurological impairment, please use an interpreter or obtain a collateral history (if surrogate not present, they should be called to obtain).
4. Consider evaluating relevant additional components in the neurological exam depending on the consult question (e.g. orthostatic vital signs and Dix-Hallpike/HINTS exam for patients with dizziness).
5. Outside of stroke codes, traumas, and other neurological emergencies, please consider involving us before ordering advanced imaging such as brain/spine MRI or vessel imaging to ensure the optimal protocol is ordered.

Obstetrics & Gynecology

Pending
Ophthalmology:

Our service is based off-site at the Byers Eye Institute. Our residents cover consults at the VA, Valley, and at Stanford, and we do not have 24-hour in-house coverage, so it can be challenging to get to and from various sites to see patients. We will always come see a patient for an ophthalmologic emergency, but appreciate help from other services in determining true acuity so we can most appropriately triage patients! Before you call, it is helpful if you have:

1. An ocular history
2. Patient’s visual acuity
   a. Use a pocket Snellen chart (paper or smart phone app)
   b. If a Snellen is not available, please check if they can do the following (listed order of increasing ease): read small text, read large text, count fingers, detect hand motion, or detect light.
3. Please include the patient’s name, MRN, correct call back number, and which site the consult comes from (we cover the VA, Valley, and Stanford)
4. The timing of inpatient ophthalmology consults is rarely emergent unless the patient is in the emergency department. We attempt to see all inpatient consults in a timely manner, but not all consults can be seen immediately. If there is a time sensitive issue, then we request that this is indicated in the consult and the reason for the urgency given.

If you have one of the following, please indicate this in the page/text/call, as they are true ophthalmologic emergencies:
   a. Ruptured globe
   b. Orbital compartment syndrome requiring canthotomy/cantholysis
   c. Endophthalmitis (infection within the eye)
   d. Angle closure glaucoma (severely elevated eye pressure)

Orthopedic surgery

We see a variety of patients for fractures, compartment syndrome, joint replacements, upper extremity injuries and more. In order to get the best and most efficient recommendations from our service, it is helpful to have:

1. A detailed physical exam
   a. skin status/open wounds
   b. Tenderness to palpation & range of motion,
   c. Motor and sensory function
   d. Vascular status (pulses present, capillary refill
2. Appropriate lab and imaging studies. General principles for ordering studies are
a. X-rays: Image the joint or bone in question, as well as the joint above and below. All xrays should have at least an AP and lateral, preferably a third oblique view. Ex: ankle fractures get 3V ankle and 2V tib/fib. Hip fractures get AP pelvis, full length femur, forearm fractures get forearm, wrist and elbow)

b. Septic joints:
   i. ESR/CRP/CBC w/ diff
   ii. X-rays as above

The following are orthopedic emergencies and we should be called ASAP:
- Compartment syndrome
- Dislocated hip joint (both native and prosthetic hips)

Physical Medicine & Rehabilitation

PM&R does not have an inpatient service at Stanford, and there are no rehab programs currently offered at Stanford main. We are happy to see patients who will need short or long term acute rehab care in order to jumpstart their recovery care regimens while in house at Stanford. We are happy to help with your patients care while they are here, particularly for questions regarding patients with spinal cord injury and traumatic brain injury (e.g. bowel care, catheter/bladder management, and long-term pain control plans).

A common misconception is that a clearance is required from our service before patients can be discharged to acute rehab (ARU). Patients can be referred and discharged to ARU based on our Physical Therapy services recommendation. If you case manager asks you to consult ARU, please educate them that PT recommendations are sufficient for discharge planning.

If your patient is having difficulty adjusting to their new condition, a social work, spiritual care, or psych consult is more appropriate than PM&R.

Otolaryngology

Pending

Pathology

It can be confusing who to call regarding your path specimens or results, but here is a helpful guide to our services:

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● All specimens from by pediatric or adult neurosurgery or any neurosurgeon goes to the neuropath fellow (650 725-4903 and p25924)
● All bone marrows, lymph node excisional biopsies, peripheral blood flow cytometry goes to hemepath fellow (650 529 5635 for marrows, 650 529 5634 for flow)
● Fine Needle Aspirations, adequacy assessment and flow cytometry on suspicious lymph nodes/masses FNA’ed in house goes to the cytopath fellow (call the front desk 650 723 7211, after hours the on call AP fellow can triage)
● Frozen sections, intraoperative specimen triage or kidney/liver transplant:
  ○ from 7:30am to 6pm: frozen pager (p17353)
  ○ after 6pm: on call AP fellow (p12642)
● All other surgical specimens (gyn, breast, GI, GU, liver transplant biopsies etc) go to the corresponding surg path service. To contact regarding pre-lim during the day, you can call the surgpath front desk (650 723 7211) to get sent to the correct resident/fellow, after hours, the on call AP fellow will triage (p12642).

When calling for preliminary results on specimens, please keep in mind that we take our time going over our prelims with anyone who calls our lab. It is helpful if you can designate one member of your team to call us so that we can spend the most time possible working on a final diagnosis for your specimen instead of on the phone.

For questions pertaining to lab tests and ordering (e.g. GI PCR, send out testing, chemistry, transfusion, micro/viro, molecular, immunology) between 8am and 5pm: please attempt to page the appropriate service first. Questions pertaining to STAT lab issues after 5pm: on call CP resident will triage. (p12005)

Helpful contacts:

● Transfusion pager p12027
● Micro/Viro call customer service and request micro lab 1- (877) 717-3733.
● Many questions can also be answered by perusing https://www.stanfordlab.com/

Pediatrics:

*****Overview of pediatric teams pending!*****
Psychiatry
Pending

Radiation Oncology
Pending

Radiology/Interventional Radiology

1. For urgent/emergent after hours consults, please page 27237 (home call, not in house) and place a Consult to Interventional Radiology order in Epic.
2. For vascular access consults including tunneled lines and infusion ports, please page 35463 from 8 AM to 5 PM M to F. Lumbar punctures are performed by the neuroradiology (not neurointerventional) fellow on call.
3. Please let us know if the patient is NPO, on any anticoagulation, and recent CBC and PT/INR results.

Plastic Surgery
Pending

General Surgery
General surgery is responsible for many different pathologies, but we are primarily concerned with surgical treatment of disease. For consideration of non-surgical or medical therapies, a procedure-based or medicine subspecialty will probably serve the patient better (e.g. GI consult for gastroparesis as etiology for a nauseated patient with no concern for surgical pathologies like bowel obstruction). When you call, it is most helpful to have completed enough of a workup to determine that the patient likely has a problem that has a potential surgical intervention and to be able to pose a specific question such as evaluate for small bowel obstruction, appendicitis, or cholecystitis.

If you are concerned a patient may have an emergent surgical abdomen (e.g. ischemic bowel, gut perforation), please call immediately! Patients with a surgical abdomen will severely guard a rigid abdomen and cannot tolerate palpation or an abdominal exam. For all other cases, it is helpful for the primary team to have performed an abdominal exam, sent appropriate labs, and obtained an imaging study to help rule in the surgical problem in question. If a patient’s workup is still in progress, it will be difficult for us to provide specific recommendations about surgical therapy. Please keep in mind that we take all consults seriously and do not do “curbside consults.” When you call, please have a specific question in mind (e.g. evaluate for surgical treatment of appendicitis).

Please also keep in mind the importance of discussing potential surgical intervention with the patient and their family. It can be very distressing for patients to receive a surprise visit from a surgeon they did not know was coming! In many situations, surgery may be outside the patient’s goals of care and they may view a surgical consult as ignoring

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their wishes. For all except emergent cases, please discuss code status and goals of care with the patient before calling.

**Urology:**

Urologic complaints can be difficult for many teams to manage, and we are happy to help. Here are a few common misconceptions about urology consults that may save you few phone calls.

1. **Urodynamics.** This can only be done as an outpatient due to the specialized equipment and is not available for inpatients. If the difficulty is with urinary retention, options for an inpatient include replacing an indwelling foley catheter or performing intermittent catheterization with outpatient urology follow up. If concern there is for cauda equina or spinal cord injury, the patient should have a neurological exam and appropriate imaging.

2. **Inpatient cystoscopy.** This is often part of either a hematuria, recurrent UTI, or bladder mass consult. Due to equipment limitations we do not perform inpatient cystoscopy to evaluate bladder masses or complete hematuria evaluations as an inpatient. The only inpatient cystoscopies our team performs are for foley catheters we are unable to place by other means. The inpatient cystoscopes provide a very limited field view and are not suitable for diagnosis of urologic abnormalities. If the patient is able to void on their own or if their catheter is draining freely, these are best referred for outpatient evaluation.

3. **Foley catheterization.** We are happy to help with difficult foley placements, but please recognize this is a full consult for our service when you call. Please help us by having the rationale for foley use, relevant GU history, bladder scan, what catheters have been tried and what the specific issue has been in passing a catheter.

**Child Psychiatry:**

We understand that psychiatric problems can be challenging to handle, and we are here to help! For inpatient consults, our primary concerns are first for patient safety and secondly to help manage patients with acute psychiatric disturbances. Please call us immediately for any patient who has expressed or demonstrated suicidal or homicidal ideations and provide as much history about the patient’s mental health as possible (prior suicide attempts, established psychiatric diagnoses, current medications).

For patients who are being discharged, they are most likely best referred to outpatient therapy or psychiatry. If there are real safety concerns about the patient (e.g. suicidal ideation), discharge should be postponed until those concerns are fully evaluated. If you feel the patient is well enough to be discharged but needs more mental health support, it is more effective to get them referred to an outpatient psychiatric resource that can provide them long-term continuity of care. It is generally unsafe to modify a patient’s medications before discharge, as patients require careful follow up after any alterations in therapy to evaluate for side effects, mood changes, and efficacy.

If a patient or family requests a psychiatry consult, please inquire further to understand why the request is being made. Having a specific consult request will help us frame our discussion with the patient and their family. In addition, it may become clear than the underlying problem may be better served by social work or outpatient psychiatric referral.

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Occasionally, we also receive consults to speak with patients who are upset or crying. In many cases, particularly if the patient is dealing with stressful news or a recent diagnosis, this may be a very appropriate reaction. The most helpful thing in these cases may be for someone from the primary team who knows the patient the best to talk to them about their reaction to their diagnosis, their frustrations, and to answer any questions they might have. Don’t underestimate the power of the therapeutic relationship you have with your established patients to help them deal with difficult times. As a physician, these gentle, helpful conversations can often be some of the most rewarding experiences in medicine.

Neurosurgery

Neurosurgery covers both Stanford Main and LPCH. We see a variety of patients with brain, spine, and peripheral nerve pathology. We are always on call for brain but share spine call with the orthopedic surgeons. The operator will be able to give you which service is covering spine, but generally we cover call every other week. A few points that will help us help you are:

1. Unless the patient’s clinical status absolutely precludes it, please do a neurological exam prior to calling! We will do a detailed neuro exam as part of our consult, but it is very difficult for our residents to triage patients appropriately over the phone without a neurologic exam. It’s best if the person who performed the exam can call the neurosurgery team personally, as they often has the most important information and can answer questions that people who have not seen the patient cannot! The exam does not need to be detailed, especially if the patient is acutely ill and you need help, but every little bit of information helps!

2. With the exception of Trauma 99 cases and patients in neurologic extremis, please obtain appropriate imaging of the brain or spine according to the consult question. Questions about what the most appropriate imaging study would be should be directed to the radiology department. In almost all cases, we cannot give recommendations for surgery or admission without imaging!

3. Please avoid calls to “put this on your radar screen”. We take all of our consults seriously and do not perform curbside consults due to the high level of acuity of our patients. If medical therapy or conservative management has not been exhausted and the patient is clinically stable, it may be a more useful consult to call once the workup or trial therapies are farther along. We are, however, always happy to get involved whenever there is concern about a patient's clinical status!

4. When requesting an evaluation for surgical intervention, please involve the patient and the family in the discussion to ensure they would want surgical intervention. Some patients with severe spinal and brain disorders have already decided they do not want their end of life care to include surgery and it can be very distressing for those patients to be approached by a surgeon!

Thoracic Surgery - Integrated and Traditional

Part II: Overnight call burden assessment

========== Chief Resident Council 2018-2019 QI Project Year-End Report ===========
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<thead>
<tr>
<th>Specialty</th>
<th>24 hour in-house call</th>
<th>Nightfloat</th>
<th>Home call</th>
<th>Other</th>
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Based on our current data, each day at Stanford there are 12 residents who will be post-call from a 24-hour shift and 28 residents responsible for home call overnight, for a total of 41 residents who potentially need access to a call room to be able to rest. There are currently 29 GME call rooms available at Stanford Main Hospital.

It should be noted that we have not included the night float residents in the tally of daily residents needing access to a call room, as they have been designated as shift workers and should, in theory, be able to get enough rest outside of the hospital prior to and after their shift to obviate their need for an in-hospital respite. Consideration should be given to the increasing amount of data suggesting that night shift-work does have negative effects on sleep cycles, sleep effectiveness, and cognitive performance. Future evaluations may consider including call rooms for residents working these shifts as well.

**Part III: Recommended next steps**

Based on the work done by the Chief Resident Council this year outlined in the above report, we recommend that the following actions be considered.

Communication needs assessment:
1. Provide the current needs assessment to all house staff, as well as providing it to the incoming class of residents during orientation to facilitate inter-department understanding and positive communication.
2. Integrate an abbreviated summary of these communication challenges into consult orders into EPIC where appropriate
3. Integrate a link on the EPIC homepage to the MedWiki, an underutilized existing resource for inter-service communication and resident learning
4. Integrate orientation to the MedWiki into resident orientation to encourage its maintenance as a living project

Call burden assessment:
1. Expand the existing call room pool of 29 call rooms at Stanford Main to 35 call rooms to support the documented 41 residents a night who may require one
2. Provide a comprehensive assessment of the call rooms planned to be available at 500P and their allocation plans
3. Consider future provision of call rooms for of nighfloat residents

**Acknowledgements:**

We would like to thank the GME for their support of the Chief Resident Council. Special thanks to Ann Dohn, our forever champion, and to Thang (Trey) Huynh-ngo for keeping us reminded and organized!