Emergency Department Consultation Guidelines

December 2014

Emergency Department Consultation Guidelines

This document will determine the most appropriate consultation service for certain presenting complaints and diagnoses as endorsed by the Medical Advisory Committee, St. Michael's Hospital.

1. Expected response times for consultations in the ED:

   To answer page:

   For STAT page (designated by "99" prior to extension): **< 5 minutes**

   For all other pages: **< 15 minutes**

   To arrive in ED and begin assessment of patient:

   Resuscitation/emergent patients: **<15 minutes**

   Urgent patients: **<30 minutes**

   Routine Consult: **<60 minutes**

   - The acuity category of the patient will be defined by the Emergency Physician, based upon the Canadian Triage and Assessment Scale. The consultant will be advised as to the required response time when the referral is given.

   - It is the responsibility of the entire service, including the responsible staff physician(s), to ensure that these response times are met.

   - It is expected that the above acuity-based response times are achieved 98%, 95%, and 90% of the time respectively.

2. A disposition decision (admission or discharge) will be made by the consulting service within 2 hours of the time of consultation.
   - It is expected that these decision times will be achieved 90% of the time.

3. The patient will initially be assessed by a member of the consulting team senior enough to make an expedited admission/discharge decision.

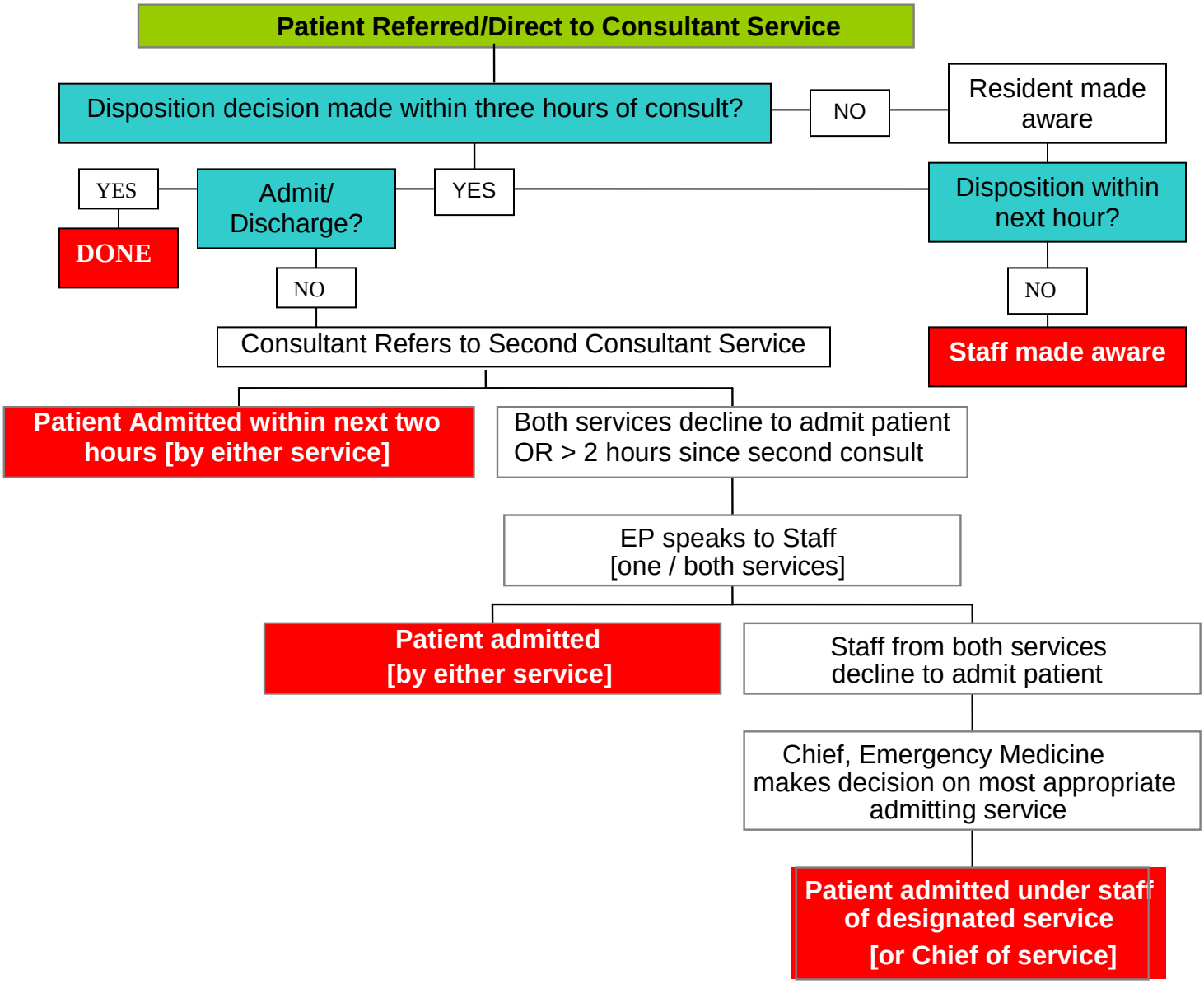
4. When the staff Emergency Physician anticipates that admission will be required, the admitting department will be notified by the ED in consultation with the senior consulting resident. The admission order may be cancelled or changed upon further assessment (e.g., to a different admitting service).

5. Once the decision to admit has been confirmed by the consulting service:
   - Holding orders will be written
   - The patient will be moved to an available bed as soon as patient condition allows

6. Service-specific response times will be regularly reported to the MAC and Chiefs.

7. The subspecialty consults team (SCT) provides coverage for the following inpatient wards: Nephrology, Respirology, HIV, Heme/Onc, and GI. For admissions to these services, please page the SCT through Locating.

Process Map for Admissions via the ED



CARDIOVASCULAR

Arrhythmia	All	Cardiology
-Hemodynamically unstable	All	Cardiology
-Pacemaker/ICD Failure -Arrhythmia requiring continuous monitoring	Seen by SMH cardiologist within past 2 years	Cardiology
	All others	GIM
Syncope NYD	Seen by SMH cardiologist within past 2 years	Cardiology
	All others	GIM
Acute coronary syndrome/ Ischemic chest pain	Complicated or Uncomplicated	Cardiology
CHF	ECG changes or +ve cardiac enzymes	Cardiology
	Stable, but seen by SMH cardiologist within past 2 years	Cardiology
	All others	GIM
Cardiac medication-related toxicity	All	Cardiology
Symptomatic valvulopathy	Seen by SMH cardiologist within past 2 years	Cardiology
	All others	GIM
Hypertensive emergency	Requires monitoring	Cardiology
	Seen by SMH cardiologist within past 2 years	Cardiology
	All others	GIM
Aortic dissection	Operable	Cardiovascular surgery
	Non-operative	Cardiology

Cardiology – GIM

All patients seen by a SMH cardiologist **in the past two years** who present to the Emergency Room with a cardiac chief complaint and requiring hospital admission will be referred to Cardiology. If the most responsible admission diagnosis is non-cardiac, then the patient will be referred to General Medicine *by Cardiology* for admission and will be reviewed with the GIM staff. When a patient known to the Cardiology service is admitted to Team Medicine, the staff cardiologist will be notified. Concurrent care and cardiology consultation will be determined on a patient specific basis.

CARDIOLOGY REFERRAL	**INTERNAL MEDICINE REFERRAL**
Examples of patient presentations that are referred to and admitted **solely to the cardiology service** if seen by an SMH Cardiologist in the last two years**:** 1) Congestive heart failure or pulmonary edema as primary presentation 2) SVT (Including A. Fib. And A. Flutter) as primary diagnosis 3) Syncope NYD 4) Arrhythmias requiring continuous monitoring 5) Hypertensive Emergency Examples of patient presentations that are referred to and admitted **solely to the cardiology service regardless of a past affiliation with a SMH cardiologist**. The disease must be active and the reason for hospital admission. 1) Acute Coronary Syndromes—compatible symptoms as primary presentation associated with troponin rise and/or ECG changes 2) Chest Pain for diagnosis - ischemic sounding chest pain as primary presentation in absence of ECG changes/troponin elevation and in the absence of other potential causes, eg. pulmonary embolus 3) Unstable congestive heart failure (where CHF is cause of instability) - requiring acute therapy in addition to diuretics (bipap, ventilation, pressors, significant tropinin – e.g. > 3) 4) All pts whose presenting syndrome is thought to be due to significant valvular heart disease (including endocarditis) 5) All serious primary ventricular arrythmias 6) All primary second and third degree heart block 7) Unstable SVT (incl. A.Fib. and A. Flutter) 8) Pacemaker or ICD failure 9) Cardiac Tamponade 10) Suspected aortic dissection	Examples of patient presentations that may be referred to **internal medicine**. (If NOT seen by SMH Cardiologist within last two years) 1) Stable congestive heart failure as new diagnosis responding reasonably well to diuretic therapy in the ER 2) Stable congestive heart failure in association with other serious medical conditions (eg COPD, pneumonia) 3) Stable congestive heart failure as primary diagnosis associated with minor troponin rise which is thought to be secondary to heart failure (Example: Demand related Troponin elevation <3) 4) Stable SVT (including A. Fib. Or A. Flutter) as primary diagnosis. 5) Syncope NYD Examples of patient presentations that may be referred to **internal medicine regardless of past affiliation with SMH Cardiologist.** 1) Unexpected troponin elevations not thought to be ACS (For example, demand related Troponin elevation < 3) in association with serious medical illness such as pneumonia, PE, sepsis, etc) 2) SVT if secondary to general medical illness (associated minor troponin rise acceptable) 3) Congestive heart failure secondary to, or coinciding with other serious medical conditions (COPD, pneumonia)

Cardiology will automatically be consulted for all patients admitted to GIM with suspected **endocarditis** or **heart failure secondary to a newly identified or severe valvulopathy.**

Cardiology

Arrhythmia		
· Hemodynamically unstable	All	Cardiology
· Pacemaker/ICD Failure	All	Cardiology
· 2nd/3rd degree heart block	All	Cardiology
· Serious Ventricular	All	Cardiology
· Stable SVT (Incl. A.Fib/Flutter)	Seen by SMH cardiologist within last 2 years	Cardiology
	All others	GIM
Syncope NYD	Seen by SMH cardiologist within last 2 years	Cardiology
	All others	GIM
ACS /Ischemic Symdrome	All	Cardiology
CHF	Unstable OR ECG changes OR significant +ve troponin thought to be ACS (e.g. >3)	Cardiology
	Seen by SMH cardiologist within last 2 years	Cardiology
	All others (even with minor troponin rise, e.g. <3)	GIM
Cardiac medication-related toxicity	All	Cardiology
Symptomatic valvulopathy (Incl endocarditis)	All	Cardiology
Hypertensive emergency	Seen by SMH cardiologist within last 2 years	Cardiology
	All others	GIM
Nonoperative Aortic Dissection	All	Cardiology

Gastrointestinal Disease

GI Bleed	If unstable	MS-ICU
	If from a known surgical lesion	General surgery
	All others	GIM
Diverticulitis	All	General surgery
Bowel obstruction	All	General surgery
Pancreatitis	If from gallstones or other obstructive cause	General surgery
	All others	GIM
Hepatitis or liver failure	If followed by GI for this	GI
	All others	GIM
Alimentary foreign bodies	Require surgery	General surgery
	All others	GI
Inflammatory bowel disease	If followed by GI for this	GI
	All others	GIM

Genitourinary / Renal Disease

Pyelonephritis	In the setting of (1) infected renal stone or (2) obstruction	Urology
	All others	GIM
All renal transplant	All patients referred to nephrology, subsequent disposition based on guidelines on subsequent pages *("Nephrology-GIM clarification & agreement")*	Nephrology
Dialysis (PD/HD)	CHF, electrolytes disturbance, sepsis of unknown source or line sepsis. PD patient with peritonitis. PD access issue	Nephrology
	Fistula/vascular access problem	Vascular surgery
	Reason for admission is an issue for which presence of dialysis is incidental	Appropriate subspecialty as outlined elsewhere in this document
	All others	GIM

Hematology / Oncology

Note: Oncology patients presenting with problems unrelated to an active cancer, or who are **not** followed by an SMH Oncologist should be referred to the most appropriate service for their acute condition.

Congenital bleeding disorder (With active/recent bleed)	All	Haematology/ Oncology
Acute or palliative oncology problem	Acute structural Problem (e.g. bowel obstruction)	General surgery
	All other problems related to active cancer (including DVT/PE) OR treatment complication OR suspicion of recurrence	**Followed by SMH Oncologist**: Haematology/ oncology **NOT Followed by SMH Oncologist**: Internal Medicine
	Unrelated to active cancer	Most Appropriate service as per remaining guidelines

HIV Patients

After regular working hours (5 pm to 8 am on weekdays, as well as on weekends):
If there is bed availability on 2 Donnelly and the HIV Service admission criteria are met, the SCT resident will be consulted to admit the patient to the HIV Service and review the case

with the HIV/ID attending physician on call. Even if the GIM Census is > 80, if there is no bed available on 2 Donnelly/Queen then the patient will be admitted to GIM. When there are no beds on 2 Donelly/Queen the patient will be admitted to Team Medicine and be reviewed with the staff internist on call. An HIV attending staff physician is always available by telephone to discuss the evaluation and management of HIV patients requiring admission (both to Team Medicine and HIV). Furthermore, when an HIV patient is admitted to Team Medicine, the HIV service should be formally consulted in order to provide concurrent care for the patient during his or her admission.

Examples of patients NOT admitted to the HIV service: Bacterial pneumonia, cardiac disease, cellulitis, homeless / under housed (as the sole reason for admission), unrelated liver disease, unrelated pancreatitis, any acute surgical disease, psychiatric illness, thrombotic or other vascular disease, or undiagnosed conditions.

Furthermore, when an HIV patient is admitted to Team Medicine, the HIV service should be formally consulted in order to provide concurrent care for the patient during his/her stay in hospital.

Our hope is that these changes will simultaneously enhance the educational environment, moderate the burden of service associated with subspecialty and General Medicine rotations at St. Michael's Hospital, and effectively utilize available resources.

Examples of Opportunistic Infections admitted to HIV Service. **The disease must be active and the reason for hospital admission**.	Examples of conditions **NOT** admitted to the HIV Service.
•Coccidioidomycosis •Cryptococcosis •Cryptosporidiosis (must be the reason for admission) •Cytomegalovirus disease (active) •Encephalopathy, HIV-related (must be the reason for admission) •Esophagitis (candida, CMV, HIV, HSV, KS) •Histoplasmosis •Isosporiasis (must be the reason for admission) •Kaposi's sarcoma (must be the reason for admission) •Lymphoma (unless admission to Haem/Onc) •Mycobacterium avium complex (active disease, must be the reason for admission) •Mycobacterium tuberculosis, any site •Pneumocystis jiroveci pneumonia (formerly PCP) •Progressive multifocal leukoencephalopathy (must be the reason for admission) •Toxoplasmosis - brain	•Bacterial pneumonia •Cardiac disease •Cellulitis/wound infections/osteomyelitis •Homeless/Underhoused as sole reason for admission •Liver disease (unrelated to antiretroviral toxicity) •Pancreatitis (unless as a result of antiretroviral therapy) •Surgical disease, acute (any) •Placement issues •Psychiatric illness •Thrombotic or other vascular disease •Undiagnosed conditions

Miscellaneous

Cellulitis	Upper extremity	Plastic surgery
	Face	Plastic surgery
	Requiring surgical procedure e.g. debridement, I & D	Plastic surgery
	All others	GIM
Osteomyelitis	If post-operative	Original service
	Septic or unstable	GIM/ ICU
	All others	Orthopedics
Parotitis	All	ENT

Addendum: Memorandum of agreement (Drs. MacDonald, Hyland, Mourad)

Spinal osteomyelitis/epidural abscess		Neurosurgery
Back or neck pain	Neurological deficit or lesion Requiring surgery or patient previously seen by staff neurosurgeon	Neurosurgery
	All others (eg. Pain control)	Internal medicine

Nephrology-GIM Clarification & Agreement

1. Peritoneal Dialysis patients presenting with an issue relating to dialysis or with peritonitis are referred to Nephrology. Patients on peritoneal dialysis presenting with issues not related to dialysis will be referred to GIM; Nephrology will follow in consultation to facilitate dialysis.

2. Renal Tx patients presenting to ER with a medical issue are to be referred and evaluated first to Nephrology. Subsequent disposition will be guided by the guidelines attached.

3. Patients on GIM who have been initiated on renal replacement therapy in hospital will be transferred to nephrology once their acute medical issues have been stabilized.

4. The disposition of patients in MSICU who have been initiated on renal replacement therapy will be dealt with on an individual basis.

Renal Transplant Admissions

(To be decided by Nephrology resident <u>after</u> consult)

<u>To Nephrology</u>

1. **Admission for Transplant**
2. **Acute Rejection**
3. **All Infections/Sepsis**
4. **AKI not otherwise explained**
5. **Anti-rejection drug toxicity**

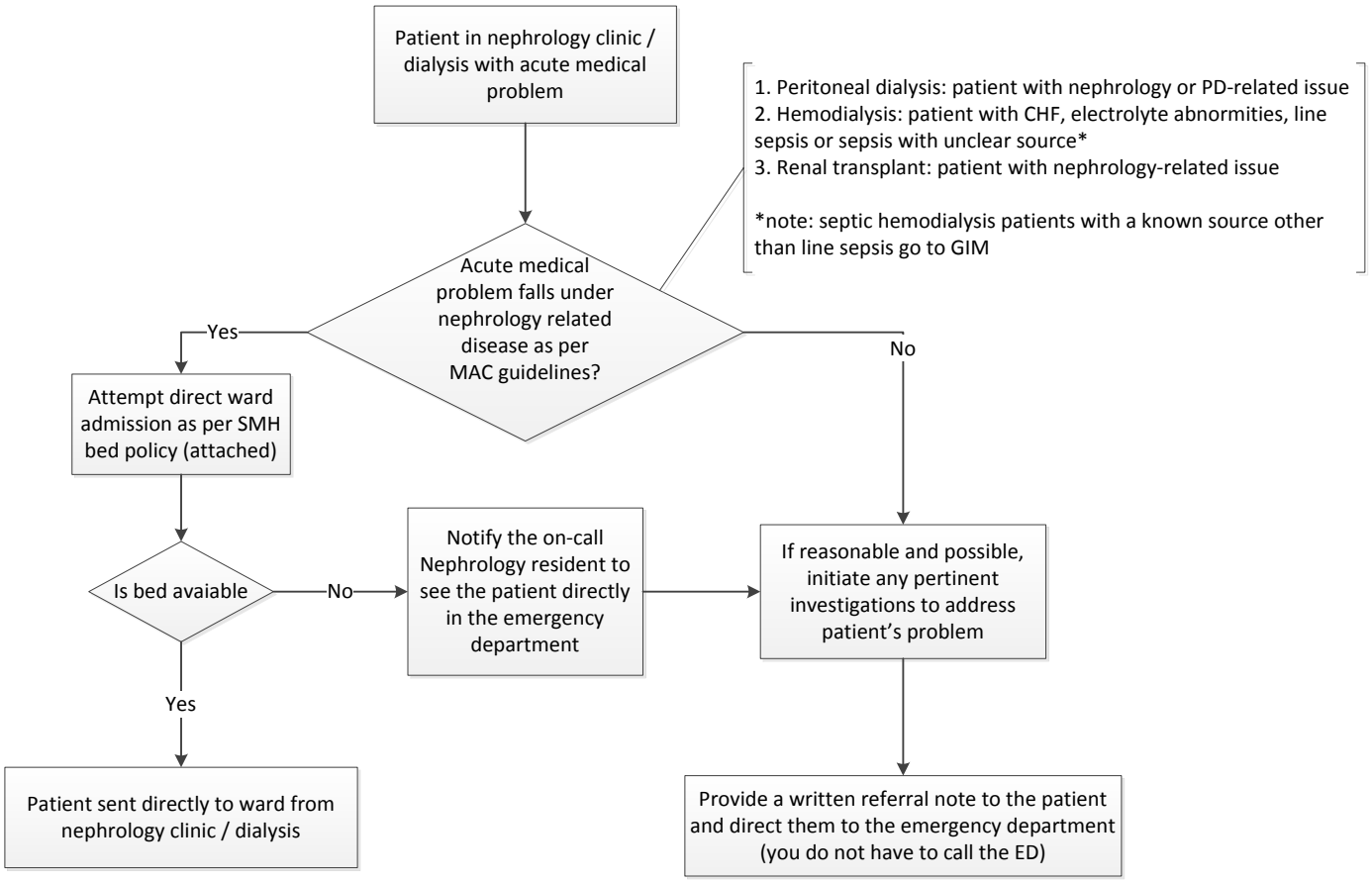
<u>To Team Medicine</u>

1. **Diabetes**
2. **Non TPA stroke**
3. **GI bleed**
4. **Malignancies excluding PTLD**

If a patient is seen by a nephrology MD or resident in <u>the dialysis unit</u> and sent to the ED for admission to nephrology, the ED physician does not need to assess the patient. If the nephrology MD believes the patient should be admitted to GIM (e.g. for Community Acquired Pneumonia), **the staff nephrology MD should directly call the staff GIM MD** to communicate this plan. The patient will be sent to the ED "Direct to Medicine" from the dialysis unit.

If a dialysis patient comes to the ED independently (e.g. by ambulance, not from the dialysis unit), the ED physician should assess and refer to the most appropriate service as per the consult guidelines above.

ED Referrals from Nephrology Clinic/Dialysis



Neurological Disease

Stroke/ high-risk TIA	If thrombolytic candidate	Neurology
	All others	GIM
Seizure	Status epilepticus, CT +ve	Neurosurgery
	Status epilepticus, CT –ve	Neurology
	All others	GIM
Acute intracranial bleed	Operable/ to assess operability	Neurosurgery
	Non-operable	GIM or ICU
	Palliative care	GIM

Respirology

NOTE: Patients presenting with large volume hemoptysis or an underlying diagnosis of Cystic Fibrosis are always referred to Respirology. Admission to Respirology or Medicine for patients presenting with other respiratory conditions, known to Respirology (seen within the past year) will otherwise be determined by the daily census.

Hemoptysis	Massive / unstable	MSICU
	All others	Respirology
Complications of cystic fibrosis	All	Respirology
COPD/ asthma	If seen by a SMH respirologist within the last year	Respirology
	All others	GIM
Bronchiectasis	If seen by a SMH Respirologist within the last year	Respirology
	All others	GIM
Pulmonary hypertension	If seen by a SMH respirologist within the last year	Respirology
	All others	GIM
Pulmonary fibrosis/ interstitial lung disease / Bronchogenic carcinoma	If seen by a SMH respirologist within the last year	Respirology
	All others	GIM
Bronchiectasis	If seen by a SMH respirologist within the last year	Respirology
	All others	GIM
Pulmonary embolism	Hemodynamically Unstable / thrombolysis	MSICU
	Not related to malignancy	GIM
	PE related to active cancer	**Followed by SMH Oncologist**: Haematology/ oncology

Respirology Continued

All patients seen by a staff SMH respirologist in the past year who present to the Emergency Room with a respiratory chief complaint, and require hospital admission will be referred to the *Respirology Service or GIM* depending on the daily census of each service (see below).

1. If the most responsible admission diagnosis is hemoptysis or related to the care or complications of patients with cystic fibrosis, then the patient will be admitted under the care of the respirology service.

2. If the most responsible admission diagnosis is not pulmonary related, then the patient will be referred to General Medicine for admission and will be reviewed by the medical team with the GIM staff.

3. The Respirology attending staff will always be available by telephone to discuss the evaluation and management of Resp patients requiring admission (both to Team Medicine and Respirology). Furthermore, when a patient known to the Respirology service is admitted to Team Medicine, the staff respirologist will be notified that their patient has been admitted to GIM. Concurrent care and respirology consultation will be determined on a patient specific basis.

Examples of patient presentations that are referred to and admitted **solely** to the respirology service **regardless of a past affiliation with a SMH respirologist**. The disease must be active and the reason for hospital admission. •**Hemoptysis** •**Complications of Cystic Fibrosis**	Examples of conditions that may be referred to respirology if a patient has been **seen by a SMH respirologist within the last year**. •COPD/Asthma •Complications of therapy for a primary pulmonary diagnosis [e.g. tuberculosis] •Bronchiectasis •Pulmonary hypertension •Pulmonary fibrosis/ interstitial lung disease •Bronchogenic carcinoma •Thrombotic disease

Medicine/Respirology Daily Census modifiers:

Patient requiring admission with a respiratory issue known to a SMH respirologist:

Medicine Census	Respirology Census	Accepting Service
Anything	< 15	**Respirology**
< 80	≥ 15	**GIM**
≥ 80	16-19	**Respirology**
Anything	≥ 20	**GIM**

Traumatic

Hand injuries	All	Plastic surgery
Spinal trauma	Cervical	Neurosurgery
	Thoracolumbar with neurological deficit	Neurosurgery
	Thoracolumbar without neurological deficit	Orthopedic surgery
Inability to ambulate	Primary reason for admission is the presence of active fracture (incl. stable fractures e.g. pubic ramus fracture, stable vertebral fracture)	Orthopedic surgery
	Primary reason for admission is due to a medical issue normally referred to subspecialty service	Appropriate service as outlined elsewhere in this document
	Neither of the above	Internal Medicine
Rib fracture(s) requiring admission for pain control and observation	All	General surgery