Highland Hospital

DEPARTMENT OF EMERGENCY MEDICINE

EMERGENCY OBSERVATION UNIT

EOU

Operations

Procedures

Diagnosis Specific Protocols 2014

HIGHLAND HOSPITAL

An Affiliate of the UNIVERSITY of ROCHESTER MEDICAL CENTER

TABLE OF CONTENTS

INTRODUCTION

Mission Statement: The Highland Hospital ED Observation Unit (EOU) will provide high quality care for a group of patients who require active and focused management during an expected length of stay between 8 and 24 hours. The unit will manage patients according to diagnosis specific protocols based upon the best available clinical evidence. The Unit will be efficient, cost-effective and create an environment that is pleasant and comforting for their patients. The unit will strive to be a local and nationally recognized leader in the provision of observation services.

Design: The ED Observation Unit (EOU) is a 9 bed unit located adjacent to the Emergency Department. All beds will have monitoring capacity.

Scope of Services: The EOU will care for patients from the ED who are expected to have a length of stay in the range of 8 to 24 hours. Core objectives of the EOU include: (a) provision of quality and safe patient care: (b) expedited patient transfer from the ED setting; and (c) appropriate use of hospital inpatient and outpatient services.

Staffing: The EOU will be staffing 24/7 with two RN's and a patient care technician (who will also share clerical tasks). Medical coverage is outlined below (Patient Coverage).

Management and Oversight: The EOU is administratively part of the Emergency Department and therefore is under ED nursing and medical administration. There will be ongoing clinical collaboration with the Department of Medicine.

Nursing Leadership: The ED Nurse Manager will be responsible for oversight of the nursing and PCT staff. The Nurse Manager will partner with the EOU Medical Director to assure quality care is delivered with regular meetings and evaluation of feedback from statistics and patient responses.

Physician Leadership: The EOU Medical Director will report to the Emergency Department Chief with a secondary reporting relationship to the Chief of Medicine. He will be responsible for hiring and supervision of the EOU medical staff (physicians and mid-level providers). He will be responsible for monitoring quality of care and patient satisfaction according to the EOU QA program.

Diagnosis Specific Protocols: In the EOU, eRecord OBS order sets have been developed to accelerate transfer from the ED to the EOU. For patients with certain conditions that meet specific guidelines, the ED provider can use an expedited admission process and pre-established transition orders.

Highland Hospital ED Observation Unit Admission Guidelines

The following are general criteria that must be attained for all EOU patients:

1. Anticipated/estimated LOS less than 24 hours
2. Patients should have a diagnosis matching an EOU protocol (exceptions permitted on a case by case basis)
3. Age 18 years or older
4. Ambulatory or able to use bedside commode with minimal assistance
5. Clinically sober
6. No confirmed C. dificile or influenza (OK if suspected or “R/O”)
7. Dialysis patients at discretion of EOU provider

Vital Signs should be within the following limits:

- SBP>90mmHg
- HR>50 & <110
- RR<25
- O2Sat>92% (on room air or nasal cannula)

Common Appropriate ED Observation Unit Conditions

- Cellulitis
- Chest pain requiring monitoring and serial troponins
- Syncope
- CHF “tune-up”
- Dehydration from various causes
- Renal colic
- Abdominal pain of unclear etiology (unless obviously chronic)
- Medical condition awaiting IR procedure

Observation Exclusion Criteria

Cardiac:

Patients with ongoing chest pain or unstable arrhythmias. This includes patients with ST elevation or depression and complete (3rd degree) heart block.

Neurologic:

Patients with suspected TIA or CVA should generally be admitted to the Stroke Unit. There are occasional patients with whom the diagnosis is unclear who may benefit from an OBS stay.

Psychosocial:

Alcohol or other substance intoxication or withdrawal. Known or suspected drug seekers. Active suicidal ideation or psychotic behavior. These patients should be admitted to the medical floor if not transferred to psychiatry.

Pulmonary:

Asthmatics or COPD patients requiring hourly nebulizer treatments. Any patient with stridor or tracheostomy problems.

Miscellaneous exclusions:

- Patients identified by social work to be placement challenges in excess of 24 hours
- Sickle cell painful crisis patients are not successfully managed in observation
- Patients that require assistance with most ADLs generally cannot be accommodated - there is currently no PCT staffing overnight. This may be re-addressed if staffing patterns change

ADMISSION PROCEDURES

1. ED provider identifies a patient who is felt to be appropriate for the Unit

2. During OBS provider coverage hours, the ED provider will call 10222 to discuss patient with the OBS provider. (Other times, they may discuss decision with on-call Hospitalist).

3. Weekends and Holidays: On EOU covered days, the ED provider will call the covering EOU provider to discuss the patient. On other weekends or holidays, the ED provider will call the on-call hospitalist to discuss patient. If the "Back-up" moonlighter is available, they will be notified of patient and they will process the EOU "work-up".

4. All ED EOU patients will be reviewed by Utilization Management during covered hours

5. The ED provider will:
    1. Enter an admission to observation order in eRecord
    2. Enter transition orders, using an OBS order set appropriate for the patient's medical condition(s). (These may be deferred if the EOU provider is immediately available to write the orders.)

PATIENT COVERAGE

During EOU provider coverage hours, new patients that are placed in the EOU are "Handed Off" (using hospital hand-off guidelines) from the ED provider (MD or mid-level) to the OBS provider (MD or mid-level). Other times (overnights, weekends and holidays) the patients will be "Handed Off" to the Department of Medicine Nocturnist or Hospitalist.

At the end of the EOU provider coverage block, the EOU provider will "Hand Off" the patients that are in the Unit to the Department of Medicine Cross-cover PA.

At the beginning of the EOU provider coverage block, the Cross-cover PA will "Hand Off" the patients to the EOU provider.

UNSTABLE PATIENTS

If a patient becomes unstable while in the EOU, they will be evaluated by the EOU provider during coverage hours. Other times, the patient will be evaluated by the cross-cover Department of Medicine PA. Further assistance, if required, will be through activation of the Rapid Response Team. If a patient experiences a cardiac or respiratory arrest, a physician provider from the emergency department will assist with patient care and management.

CAPACITY MANAGEMENT/OVERFLOW PROCEDURES

Huddles will occur on each shift to evaluate the appropriateness or continued observation status and location for each patient. Participants will include the responsible provider, nurse and UM nurse/Nursing Supervisor (non UM covered hours). If all beds in the EOU are filled, patients will either be diverted to an inpatient unit or held in the ED pending bed availability in the EOU.

DISPOSITION PROCEDURES

The EOU provider (with the UM nurse, when indicated) determines each patient's disposition:

- Discharge home: Patients whose care needs are satisfied are discharged, with appropriate home care services and physician referral, as indicated

- Inpatient specialty services: Patients whose clinical condition requires acute inpatient specialty intervention are transferred to the care of that service;

OBSERVATION ORDERS

All patients admitted to the EOU must have an eRecord "order set" completed by the ED provider so that patients can move to the EOU as quickly as possible.

ALLERGIC REACTION GUIDELINES

ED Management/Outcomes

- Heplock placed
- Steroids started
- Benadryl started
- Histamine blocker started

Observation Status Criteria

- No stridor or dyspnea
- No significant uvula or tongue-swelling

Observation Endpoint

- Home: Patient has improved symptoms of allergic reaction
- Medicine Admit: Patient without improvement

Inpatient Admission Criteria

- General erythema
- Dyspnea/hypoxia
- Hemodynamically unstable
- Continued deterioration despite 24 hours of outpatient treatment

ALLERGIC REACTION OBSERVATION ORDERSET

Diagnosis: Allergic reaction

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Clears advance to Regular as tolerated

Medications: Diphenhydramine (Benadryl) 25mg IV q6hours x 2 doses
Famotadine (Pepcid) 20mg IV q12hours x 2 doses
Prednisone 40 mg PO daily x 1 dose
[ ] Albuterol 2.5 mg/3ml nebulized q4hours prn wheeze/shortness of breath x 3 doses

Nursing: Peak flow at admission, each shift and after each nebulizer treatment
Ambulatory O2Sat q shift
Oxygen 2L via cannula prn O2Sat $\underline{<}$ 92%

ASTHMA GUIDELINES

ED Management/Outcomes

- Heplock placed
- 3 nebulizer treatments completed
- Steroids given
- Chest Xray considered

Observation Status Criteria

- No pneumonia or CHF
- Frequency of nebulizer treatments $\geq$ 2 hours
- No significant dyspnea (e.g., using accessory muscles)

Observation Endpoint

- Home = Pt with improved symptoms and able to ambulate with O2Sat $\geq$ 93%
- Medicine Admit = Pt without improvement or O2Sat < 89%

Inpatient Admission Criteria

- Difficulty resolving airflow obstruction/severity. PEF 40-69%
- History of severe exacerbations or prior intubation, or systemic steroids $\geq$ 24 hours with continued wheezing

ASTHMA OBSERVATION ORDERSET

Diagnosis: Asthma Exacerbation

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Regular

Medications: Albuterol 2.5mg/3ml inhaled via nebulizer q3hours x 4 doses
Ipratropium 0.5 mg/2.5ml inhaled via nebulizer q6hours x 2 doses
Albuterol 2.5 mg/3ml q2hours inhaled via nebulizer prn wheeze x 6 doses
Prednisone 40mg po q daily x 1 dose

Nursing: Peak flow q shift and chart
Ambulatory O2Sat q shift
Oxygen 2L via cannula prn O2Sat $\underline{<}$ 92%

ATRIAL FIBRILLATION GUIDELINES

ED Management/Outcomes

- Heplock started
- CBCD/SMA8/Trop; consider TSH/FT4
- EKG without acute ischemic changes
- CXR without infection or CHF
- ETOH evaluation if needed
- Pulmonary embolism evaluation considered
- Rate controlled
- 1st dose of PO diltiazem/metoprolol given
- Aspirin 81 mg x 4 tablets chewed
- Anticoagulation considered based on CHADS2 score

Observation Status Criteria

- Rate controlled without requiring IV supplementation for 60 minutes
- No known intracardiac thrombus
- Normal troponin
- No unstable angina or ongoing chest pain
- Has EF $\geq$ 40% (otherwise high risk for CHF)
- No current CHF

Observation Endpoint

- Home = controlled Afib with negative cardiac enzymes
- Cardiology Admit = uncontrolled Afib or positive cardiac enzymes

Inpatient Admission Criteria

- Initiation of medication with proarrhytmia risk; cordarone (Amiodarone) w/rate > 120
- Patients receiving dofetilide (Tikosyn)
- Requiring urgent cardioversion; within 4 hours of arrival
- Afib rate > 120 with SBP < 90

ATRIAL FIBRILLATION OBSERVATION ORDERSET

Diagnosis: Atrial Fibrillation

Admit to: Observation unit

Allergies:

Activity
[ ] Up ad Lib
- OR -
[ ] Up with assist

Diet: [ ] Heart healthy

Medications:
[ ] Diltiazem (Cardizem) 30mg PO q6hours x 2 doses
- OR-
[ ] Metoprolol (Lopressor) 25mg PO q12hours x 1 dose

- IF ANTICOAGULATION DETERMINED

[ ] Warfarin (Coumadin) 5mg PO daily x 1 dose
** *Consider reducing to warfarin 2.5mg po in elderly, malnourished, high risk of bleeding, or concurrent use of medication with major interactions*

[ ] Daltaparin (Fragmin):
Weight <100kg: 200units/kg daily x 1 dose
Weight ≥100kg: 100 units/kg q12hours x 1 dose
***Syringe sizes: 5,000 units, 7500 units, 10,000 units, 12,500 units 15,000 units, 18,000 units. You may round to the nearest sized syringe.*

CELLULITIS (SIMPLE) GUIDELINES

ED Management/Outcomes

- Heplock
- CBCD/SMA8 pending
- Blood cultures before antibiotics started
- Antibiotics started

Observation Criteria Status

- Vital sign modifications:
  BG ≤300 mg/dL
- No suggestion of abscess
- Not post-surgical incision
- Erythema involves < 50% of the extremity
- No immunosuppression (ie. s/p transplant, mycophenolate mofetil (Cellcept), tacrolimus (Prograf),prednisone, asplenia, etc.)
- If HIV+, CD4 count must be >500 within 6 months
- No renal failure/dialysis
- <75 year old
- No altered mental status

Observation Endpoint

- Home: Resolution of erythema from outline and patient is fever free
- Medicine/Facial trauma/Ortho admit: If no improvement or worsening

Considerations for Inpatient Admission

- Animal or human bite
- Progression despite 24 hours of outpatient anti-infectives
- Purpura/petechiae
- >50% of limb involved
- >10% BSA

CELLULITIS (SIMPLE) OBSERVATION ORDERSET

Diagnosis: Cellulitis

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Regular

Medications:

If high MRSA risk – known MRSA carrier or recent health-care contact:
[ ] Vancomycin 1gm IV Q 12 hours x 1 dose

If low risk for MRSA – cover group A strep and susceptible S. aureus:
[ ] Cefazolin (Ancef) 1gm q8h IV
- OR -
[ ] Vancomycin 1gm IV Q 12 hours x 1 dose (penicillin allergic)

- AND -

[ ] Hydrocodone/Acetaminophen (Vicodin) 5/500 1-2 tabs PO q4hours prn pain x 3 doses

- OR -

[ ] Oxycodone/Acetaminopen (Percocet) 5/325 2 tab PO q6hours prn pain x 2 doses

Nursing: [ ] Elevate affected extremity
- OR -
[ ] Carter pillow
- OR -
[ ] Warm soaks/compresses

CHEST PAIN (LOW RISK) GUIDELINES

ED Management/Outcomes

- Heplock placed
- CBCD/SMA8 done
- Troponin negative
- Chest Xray without pulmonary edema or CHF
- EKG without acute changes
- Call private Cardiologist if applicable

Observation Criteria

- No stent in the last six weeks
- Not in CHF
- No heart transplant or LVAD
- Chest pain free
- If EF $\leq$ 40% discuss with OBS service before admission

Observation Endpoint

- Home: normal stress test or clearance by Cardiology
- Cardiology Admit: abnormal stress test or concerning cardiac clinical evaluation

Inpatient Admission Criteria

- Aortic stenosis
- New LBBB
- New Q wave
- ST elevation or depression
- Afib on ECG with chest pain
- SBP <90

CHEST PAIN (LOW RISK) OBSERVATION ORDERSET

Diagnosis: Chest pain possible ACS

Admit to: Observation unit

Contacted private Cardiologist: Dr. _____, [ ] SMH cardiologist, [ ] No cardiologist

Allergies:

Activity [ ] Up ad Lib
- OR -
[ ] Up with assist

Diet: [ ] Heart healthy diet

Medications: Enteric coated aspirin 325mg PO daily x 1 dose
Metoprolol 25mg PO q12hours (hold for HR<60 bpm, SBP<110 mmHg) x 1 dose

Lab/Testing: Telemetry monitor

CLOSED HEAD INJURY GUIDELINES

ED Expectations

- Heplock placed
- CBCD/SMA8 done (PT if needed)
- Head CT is negative for bleed or other abnormalities
- Evaluated and managed for cause of fall (i.e. syncope, seizure, UTI etc)

Patient with small bleed may be considered if cleared by EM and Neurosurgery attendings

Observation Criteria

- No focal neurological deficits
- No persistent vomiting
- Alert and oriented x 3
- No skull or facial fractures

Observation Endpoint

- Home: patient will have stable or improved neurological exam
- Neurology Admit: new focal neurological deficits but repeat CT that has no need for surgical intervention
- Neurosurgery Admit: new focal neurological deficits and repeat CT has acute changes in need of surgical intervention.
- Medicine Admit: no improvement on neurological exam and pt not stable to go home

Considerations for Inpatient Admission

- Ataxia or dysarthria, aphasia, dysphagia
- Neurological checks q4hours
- Blindness, visual field loss

CLOSED HEAD INJURY OBSERVATION ORDERSET

Diagnosis: Closed Head Injury

Admit to: Observation Unit

Allergies:

Activity [ ] Up with assist

Diet: [ ] Clears advance to regular as tolerated
- OR-
[ ] NPO

Medications: Acetaminophen (Tylenol) 650mg PO q4hours as needed for pain x 3 doses

Ibuprofen 600mg PO q6hours as needed for pain x 2 doses

Ondansetron (Zofran) 4mg po/IV q4hours as needed for nausea x 3 doses

Nursing: Neurological checks q2hours x2 then q4hours

DVT GUIDELINES

ED Management/Outcomes

- CBCD/SMA8/PT – INR baseline
- Urine pregnancy test neg on all women of childbearing age
- US of extremity + for DVT

Observation Status Criteria

No clinical evidence of pulmonary embolus
WBC ≤ 15,000
No contraindications/restrictions to dalteparin:

- No renal failure (ie CrCl<30)
- No liver failure
- ≤150kg
- Not high risk for falls

No contraindications to anticoagulation (ie. Active bleed, malignancy)
No iliac vein DVT – (needs vascular vs. anticoagulation?)

Observation Endpoint

- Home: outpatient treatment arrangements made
- Medicine Admit: arrangements not able to be made within 20 hour limit

Considerations for Inpatient Admission

- Morbid obesity (BMI 40 or greater) or non-ambulatory
- Recurrent within the last 3 months or previous episodes of DVT; two or greater
- Previous fall history or high risk of falls (elderly, history of falls, lower extremity weakness, unstable gait)
- Active bleeding or high risk of bleeding
- PLTs <75,000

DVT OBSERVATION ORDERSET

Diagnosis: DVT

Admit to: Observation unit

Allergies:

Activity
[ ] Up ad Lib
- OR -
[ ] Up with assist

Diet: [ ] Regular

Medications: Warfarin (Coumadin) 5mg PO daily x 1 dose
*** Consider reducing to warfarin 2.5mg po in elderly, malnourished, high risk of bleeding, or concurrent use of medication with major interactions.*

Daltaparin (Fragmin):
Weight <100kg: 200units/kg daily x 1 dose
Weight >100kg: 100 units/kg q12hours x 1 dose
***Syringe sizes: 5,000 units, 7,500 units, 10,000 units, 12,500 units, 15,000 units, 18,000 units. You may round to the nearest sized syringe.*

[ ] Hydrocodone/Acetaminophen (Vicodin) 5/500 1-2 tab PO q4hours prn x 3 doses

Nursing: Elevate extremity
Call social work to consult to arrange VNS and assure RX fills

GASTROENTERITIS GUIDELINES

ED Management/Outcomes

- IVF started
- Antiemetics started
- CBCD/SMA8 done
- Stool cultures and fecal leukocytes sent, Cdiff
- EKG without ST elevation or ischemia if clinically relevant
- Urine pregnancy test is negative on all women of childbearing age
- Consider FAS or CT (differential dx obstruction, ileus)

Observation Status Criteria

- No focal abdominal pain
- No hematemesis
- No melena or mahogany stool
- No nasogastric tube
- Low risks for Cdiff

Observation Endpoint

- Home: patient tolerating PO fluids with stable vital signs
- Medicine Admit: patient not tolerating PO

Considerations for Inpatient Admission

- Unresponsive to antiemetics
- Inability to maintain adequate hydration due to N/V following the administration of one or more antiemetic medications
- Vomiting/diarrhea with any 2: mental status changes, HR above 100, BUN >45, Cr >3, Na >150, USG >1.030, postural SBP drop >30
- Abdominal pain and vomiting protracted (vomiting despite multiple doses of antiemetics)

GASTROENTERITIS OBSERVATION ORDERSET

Diagnosis: Gastroenteritis

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib
- OR -
[ ] Up with assist

Diet: [ ] Clears advance to regular as tolerated

IVF: 0.9NS@___ml/hr

Medications: Ondansetron (Zofran) 4mg IV q4hours prn nausea x 3 doses
Metoclopramide (Reglan) 10mg IV q6hours prn nausea x 2 doses
Famotidine (Pepcid) 20mg IV q12hours x 1 dose

Labs/Testing: [ ] CBCD/SMA8 in am (if needed)

HYPEREMESIS GRAVIDARUM GUIDELINES

ED Expectations

- Heplock
- CBC/SMA8/RUQ panel/BHcG done; progesterone level pending
- UA

Observation Status Criteria

- Confirmed IUP
- No vaginal discharge/bleeding
- No significant abdominal/back pain
- No diarrhea
- Is <14 week gestation
- No diabetes

Observation Endpoint

- Home: patient taking orals and urinalysis is cleared of ketones
- OB/GYN Admit: patient still significantly symptomatic

Inpatient Admission Criteria

- Unresponsive to antiemetics following the administration of one or more antiemetics
- Mental status changes-encephalopathy
- Heart rate greater than 100bpm
- Postural SBP drop >20
- USG > 1.030

HYPEREMESIS GRAVIDARUM OBSERVATION ORDERSET

Diagnosis: Hyperemesis Gravidarum

Admit to: Observation unit

Allergies:

Activity Up ad Lib

Diet: [ ] Clears advance as tolerated

IV Fluids: D5NS 1 liter with 10ml multivitamins, 1mg folic acid, 100mg thiamine x 1 over 5 hours
Then change to D5NS at 200ml/hr x 3 liters each over 5hours
Then d/c fluids and change to PO if hydrated

Labs/Testing: Urinalysis q output

Medications: [ ] Ondansetron (Zofran) 4mg IV q4hours x 3 doses
-OR-
[ ] Metoclopramide (Reglan) 10mg IV q6hours x 2 doses
-OR-
[ ] Promethazine (Phenergan) 12.5-25mg IV q6hours x 2 doses

-AND-

Ondansetron (Zofran) ODT 4mg PO q4hours prn nausea x 3 doses when tolerating PO

HYPERGLYCEMIA GUIDELINES

ED Management/Outcomes

- IVF started
- Insulin given
- CBCD/SMA8 done
- Consider signs of infection (UA,CXR for differential diagnosis)

Observation Status Criteria

- No elevated anion gap (>12)
- Normal serum sodium bicarbonate
- No current CHF/not high risk for CHF
- No infection
- BG<400mg/dl on presentation to OBS

Observation Endpoint

- Home: stable blood sugar less than 300mg/dL for at least 4 hours
- Medicine Admit: uncontrolled BG, persistently symptomatic

Considerations for Inpatient Admission

- Blood sugar over 500mg/dL and at least one: HR greater than 100bpm, mental status changes (encephalopathy), BUN >45, Cr >3
- Blood sugar over 250mg/dL; and both HCO3 less than 18mmol/dL and ketonemia/ketonuria

HYPERGLYCEMIA OBSERVATION ORDERSET

Diagnosis: Hyperglycemia

Admit to: Observation unit

Allergies:

Activity [ ] Up with assist

Diet: [ ] Diabetic diet

IV Fluids: 0.9%NS@ _____ ml/hr

Medications: Novolog insulin subcutaneous q4hours per sliding scale:

BG<120 mg/dL	no insulin
BG121-150 mg/dL	2 units
BG151-200 mg/dL	4 units
BG201-250 mg/dL	6 units
BG251-300 mg/dL	8 units
BG301-350 mg/dL	10 units
BG351-400 mg/dL	12 units and call MLP

Labs/Testing: FSBG checked q1hour

HYPOGLYCEMIA GUIDELINES

ED Management/Outcomes

- CBCD/SMA8 done
- Consider head CT done if had unexplained symptoms of altered mental status
- Consider signs of infection/stress (UA, CXR, EKG for differential dx UTI, pneumonia, etc.)

Observation Status Criteria

- No intentional overdose
- No long acting oral hypoglycemics w/duration >20hr
- Not requiring Dextrose 5% or higher drip to maintain blood sugar at 120mg/dL
- Alert and able to tolerate PO on admission
- No infection
- No long acting insulin

Observation Endpoint

- Home: stable blood sugar (>100mg/dL) for more than 4 hours and tolerating po
- Medicine Admit: if not maintaining stable blood sugars

Inpatient Admission Criteria

- Blood sugar less than 50mg/dL with both mental status changes and unresponsive to Dextrose 50% bolus

HYPOGLYCEMIA OBSERVATION ORDERSET

Diagnosis: Hypoglycemia

Admit to: Observation unit

Allergies:

Activity [ ] Up with assist

Diet: [ ] Regular diet

Medications: Hold all oral hypoglycemic agents and insulin

Labs/Testing: Finger blood glucose q1hour

PNEUMONIA GUIDELINES

ED Management/Outcomes

- CBCD/SMA8/blood cultures done, rapid flu if temp >37.8 and respiratory symptoms (cough or SOB) starting within the previous 7 days
- Chest Xray done
- Antibiotics given

Observation Status Criteria

- No immunosuppression (s/p transplant, mycophenolate mofetil, tacrolimus, prednisone, asplenic, etc)
- If HIV+, CD4 count >500 within 6 months
- No renal failure/dialysis
- No altered mental status/delirium
- No current CHF
- No lung cancer

Observation Endpoint

- Home: improved respiratory status
- Medicine Admit: patient unimproved/hypoxic

Inpatient Admission Criteria

- Age $\geq$65
- HR > 120
- Mental status changes
- O_2 Sat <91
- RR >30
- Co-morbid condition

PNEUMONIA OBSERVATION ORDERSET

Diagnosis: Pneumonia

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Regular diet

Medications: [ ] Ceftriaxone (Rocephin) 1g IV q24hours with Azithromycin 500mg po q24hoursx1 dose

- OR -

[ ] Moxifloxacin (Avelox) 400mg IV q24hours x 1 dose

Acetaminophen (Tylenol) 650 po q24hours x 3 doses
Ibuprofen (Motrin) 600mg po q6hours prn fever x 2 doses

PYELONEPHRITIS GUIDELINES

ED Management/Outcomes

- IVF started
- CBCD/SMA8 done
- Urinalysis with culture done
- Urine pregnancy test negative on all women of childbearing age unless otherwise not indicated
- Consider pelvic exam in all sexually active women with cultures (differential dx PID)
- Consider CT scan (differential dx more serious processes, abscess, infected stone, etc)
- First dose of antibiotic given

Observation Status Criteria

- Vital sign modification
    - BG<300 mg/dL
    - Temp <39 degrees Celsius
- No single kidney
- Not pregnant
- No immunosuppression (s/p transplant, mycophenolate mofetil, tacrolimus, prednisone, asplenic, etc)
- If HIV+, CD4 count .500 within 6 months
- No renal failure/dialysis
- Is <75 years old
- No altered mental status/delirium

Observation Endpoint

- Home: patient is tolerating po analgesia
- Medicine Admit: persistent symptoms, intolerant to oral intake

Inpatient Admission Criteria

- Age 75 or older with blood cultures pending
- Continued deterioration (fever, pain, mental status changes) despite 24 hours of outpatient treatment
- Resident of a nursing home/co-existing disease and anorexia/po fluid intolerance or mental status changes
- OB patient with T>38, and all of:
    - ✓ Abd or flank pain
    - ✓ Bacteriuria or pyuria
    - ✓ Failed O/P treatment or >24 weeks gestation

PYELONEPHRITIS OBSERVATION ORDERSET

Diagnosis: Pyelonephritis

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Clears ad to regular as tolerated

IVF: 0.9NS@____ml/hour

Medications: [ ] Ceftriaxone (Rocephin) 1g IV q24hours x 1 dose
- OR -
[ ] Ciprofloxacin 400 mg IV q12hours x 1 dose

- AND -

[ ] Ondansetron (Zofran) 4mg IV q4hours prn nausea x 3 doses

- AND -

[ ] Oxycodone/Acetaminophen (Percocet) 5/325 1-2 tab PO q4hours pain x 3 doses
- OR -
[ ] Morphine ___ mg IV q4hours prn pain x 3 doses
- OR –
[ ] Hydromorphone (Dilaudid) ____ mg IV q4hours prn pain x 3 doses

RENAL COLIC GUIDELINES

ED Management/Outcomes

- IVF started
- CBCD/SMA8 done
- Urinalysis done
- Urine pregnancy test negative if applicable
- Consider non-contrast CT-abdomen/pelvis; if no CT ordered, document rationale and plan
- Consider KUB if patient has recent CT/known stone

Observation Status Criteria

- No pyuria
- No single kidney
- No kidney transplant

Observation Endpoint

- Home: pain controlled
- Medicine Admit: pain uncontrolled

Inpatient Admission Criteria

- Hydronephrosis with one:
  - ✓ Hematuria
  - ✓ Pain
  - ✓ Renal failure
  - ✓ T>38

RENAL COLIC OBSERVATION ORDERSET

Diagnosis: Renal colic

Admit to: Observation unit

Allergies:

Activity [ ] Up ad Lib

Diet: [ ] Clears advance to regular as tolerated

IVF: 0.9NS@____ml/hour

Medications: [ ] Ketoraloc (Toradol) 30mg IV q6hours x 2 doses
- AND/OR -
[ ] Morphine ____mg IV q3hours prn x 4 doses

- AND -

[ ] Tamsulosin (Flomax) 0.4mg PO daily x 1 dose

- AND -

[ ] Ondansetron (Zofran) 4mg IV q4hours prn nausea x 3 doses
- OR -
[ ] Promethazine (Phenergan) 12.5mg IV q4hours prn nausea x 3 doses

- AND -

[ ] Hydrocodone/Acetaminophen (Vicodin) 5/500 1-2 tab PO q4hours prn pain x 3 doses
- OR-
[ ] Oxycodone/Acetaminophen (Percocet) 5/325mg 1-2 tab PO q6hours prn pain x 2 doses

Nursing: Strain all urine

SYNCOPE GUIDELINES

ED Management/Outcomes

- Heplock placed
- CBCD/SMA8/ (PT if needed)
- Troponin is negative
- Urinalysis
- Urine pregnancy test is neg on all women of childbearing age unless otherwise not indicated
- Chest Xray is done
- EKG done
- Guaiac done
- CK for renal failure patients

Observation Status Criteria

- No new neurological deficits
- Able to ambulate or is at baseline
- Now alert and oriented
- No current CHF
- No critical aortic stenosis known
- Hct >25

Observation Endpoint

- Home: pt with stable telemetry and normal cardiac evaluation
- Electrophysiology vs cardiology admit: positive cardiac findings on evaluation

Inpatient Admission Criteria

- Cardiovascular drug induced
- Known cardiac disease
- Heart rate less than 60bpm or documented pause of 3 seconds or greater
- SBP <90
- Sustained AIVR

SYNCOPE OBSERVATION ORDERSET

Admission Diagnosis: Syncope

Admit to: Observation unit

Allergies:

Activity [ ] Up with assist

Diet: [ ] Heart healthy

Lab/Testing: Telemetry monitor