ED OBSERVATION UNIT:
GENERAL OBSERVATION GUIDELINES AND ESCALATION POLICY
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

ESCALATION POLICY

In cases of disagreement regarding the appropriateness of a patient's disposition to the Observation Unit (OU):

1. A verbal discussion must have occurred between the ED attending of record and the designated Obs attending.
2. The patient should be seen and evaluated by both attendings and plan of care discussed. If disagreement remains, the Obs attending will have final say regarding patient disposition to the OU. All rejections to the observation unit must be documented and available for review in real-time.
3. All such cases must be forwarded to **Dr. Brewster (646-271-5640)** and/or **Dr. Koneru (646-498-6203)** for review in a timely sensitive manner. If Dr. Brewster or Dr. Koneru cannot be reached, Dr. Studer and Dr. Verma can be contacted.
4. After review, both providers will receive feedback in a timely manner (24-48 hours).

INCLUSION CRITERIA

- Patients deemed to be **unsafe discharge** but has a **definitive diagnosis** with a clear and **specific plan made by the ED provider** that can be **measurably followed up** and treated within a **48 hour time period**.
    - Examples include the following:
        - Asymptomatic hypokalemia requiring repletion
        - Routine consult necessary before discharge as with pulmonary, rheumatology (consult placed by ED provider)
        - Teaching for wound care, medication self-administration
- Both ED attending and Observation attending agree that plan can be carried out in a 48 hour time period

Last updated 11/25/2019
Authored by R. Alfonso MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
GENERAL OBSERVATION GUIDELINES AND ESCALATION POLICY
NYC H+H KINGS COUNTY HOSPITAL CENTER

EXCLUSION CRITERIA

- Unstable or significantly abnormal vital signs (*may* include: hypotension, HR ≥ 110, SBP ≥ 220 or ≤ 90, DBP ≥ 110, RR≥ 30)
- Neutropenic fever
- No other underlying cause leading to definitive diagnosis (e.g. undifferentiated abdominal pain with persistent nausea, vomiting leading to hypokalemia)
- No acute exacerbation of chronic pain requiring significant parenteral opioid analgesia
- Altered Mental Status, GCS < 13 or significant change from baseline
- Exacerbation of psychiatric condition (i.e. psychosis, concern for threat to others or patient him/herself) or severe behavioral disorder

INTERVENTIONS

- Serial vital signs and exams every 4-6 hours
- Interventions per ED provider placement in observation
- Appropriate consults obtained
- Pre-procedure labs as needed
- NPO or diet as indicated
- Home medications as indicated for co-morbid conditions
- Outpatient medications as indicated

Last updated 11/25/2019
Authored by R. Alfonso MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
GENERAL OBSERVATION GUIDELINES AND ESCALATION POLICY
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: • Stable vital signs • Met goals of treatment plan • Benign observation course • Resolution of symptoms • PO tolerance • Appropriate and adequate follow up plan	**Admission:** • Unstable vital signs • Significant testing abnormalities • Significant complication • PO intolerance • Unsafe home environment or inability to provide self-care • Another acute process becomes apparent that requires hospitalization • Does not meet discharge criteria after observation period

Last updated 11/25/2019
Authored by R. Alfonso MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
ACUTE HEART FAILURE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Prior diagnosis of CHF • Bedside ultrasound or BNP suggestive of acute heart failure • EKG normal or unchanged from prior • Initial treatment (Furosemide) in the ED	• New onset heart failure is an admissible diagnosis[1] • Evidence of altered mental status • ESRD, cardiorenal syndrome, or severe electrolyte imbalance • Elevated cardiac enzymes (from baseline) • RR >30 • Persistent need for NIPPV, manifested by at least one of: persistent hypoxemia refractory to supplemental oxygen; or severe dyspnea with signs of respiratory muscle fatigue, increased work of breathing, or both

INTERVENTIONS
• Telemetry monitoring for 24 hours • Continuous pulse oximetry and oxygen therapy as indicated • Serial troponins and EKGs • Sublingual nitroglycerin, aspirin, and furosemide • TTE up to date within 6 months • Serial Weight and Urine Output

[1] As per Millman Guidelines (23rd edition), admission is indicated by 1 or more of the following:

- New-onset heart failure
- Acute cardiac ischemia causing or associated with failure. See Anginaclick here to preview Angina ISC or Myocardial Infarctionclick here to preview Myocardial Infarction ISC as appropriate.
- Heart failure with decreased urine output not responsive to attempts to optimize volume status
- Ongoing need for care for primary condition requiring frequent therapy adjustments because of changes in cardiac function (eg, drug dosage changes for drugs that are renally metabolized)
- Complications of heart failure present, including 1 or more of the following: Hemodynamic instability, Pericardial effusion, Symptomatic pleural effusion, Hypoxemia, Tachypnea, Dyspnea, Syncope, Altered mental status, Acute renal insufficiency that is severe (reduction of more than 50% in estimated GFR from baseline) or progressive (reduction of more than 25% in estimated GFR from baseline, with creatinine continuing to rise), Debilitating anasarca (eg, tissue breakdown with infection, inability to void due to edema), Clinically significant metabolic abnormalities due to heart failure (eg, new-onset metabolic acidosis)

Last updated 12/19/2019

Authored by A. Aurrecoechea MD

Reviewed by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, P. Koneru, and S. Brewster MD

ED OBSERVATION UNIT:
ACUTE HEART FAILURE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: • Stable vital signs • Mental Status at baseline • Ambulatory (or at baseline with ADLs) • Oxygen requirement at baseline • Adequate oral intake • Cardiology follow up within 1 week	**Admission:** • Persistent hypoxemia • Hemodynamic Instability • AMS • Failure to respond to diuresis or adverse event due to medication • Worsening of comorbid conditions • New EKG changes • Elevated cardiac enzymes

Sources

1. Collins SP, Pang PS, Fonarow GC, Yancy CW, Bonow RO, Gheorghiade M. Is hospital admission for heart failure really necessary?: the role of the emergency department and observation unit in preventing hospitalization and rehospitalization. *J Am Coll Cardiol*. 2013;61(2):121–126. doi:10.1016/j.jacc.2012.08.1022
2. Mebazaa A, Yilmaz MB, Levy P, et al. Recommendations on pre-hospital & early hospital management of acute heart failure: a consensus paper from the Heart Failure Association of the European Society of Cardiology, the European Society of Emergency Medicine and the Society of Academic Emergency Medicine. Eur J Heart Fail. 2015;17(6):544-58.
3. Schrock JW, Emerman CL. Observation unit management of acute decompensated heart failure. Heart Fail Clin. 2009;5(1):85-100, vii.
4. Miró Ò, Peacock FW, Mcmurray JJ, et al. European Society of Cardiology - Acute Cardiovascular Care Association position paper on safe discharge of acute heart failure patients from the emergency department. Eur Heart J Acute Cardiovasc Care. 2017;6(4):311-320.

Last updated 12/19/2019

Authored by A. Aurrecoechea MD

Reviewed by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, P. Koneru, and S. Brewster MD

ED OBSERVATION UNIT:
ANAPHYLAXIS AND ANGIOEDEMA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Local skin eruptions • Able to speak in full sentences • Administration of subcutaneous epinephrine • No signs of respiratory distress	• O2 saturation less than ≤90% • Stridor or other evidence of acute or impending airway compromise • EKG changes (if done) • Clinical suspicion or scope evidence of deep airway involvement • High risk features for severe/biphasic anaphylaxis: initial severe presentation (e.g. high epinephrine requirement), beta-blocker use, nut allergies, asthma, young age

INTERVENTIONS	*OPTIONAL INTERVENTIONS*
• Cardiac monitor and oxygen saturation monitoring • IV Fluids as needed • Antihistamines • Corticosteroids (IV, PO) • Patient education	• Supplemental oxygen • Albuterol +/- ipratropium • Chest X-ray Imaging • Epinephrine auto-injector teaching and prescription

DISPOSITION	
Home: • Resolution or improvement in local skin irritations and/or respiratory function	**Admission:** • Significant respiratory symptoms persist • Delayed reaction or reoccurrence • Does not meet discharge criteria after observation period

Last updated 7/1/2019

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
ANAPHYLAXIS AND ANGIOEDEMA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

Sources

1. Sampson HA, Muñoz-Furlong A, Campbell RL, et al. Second symposium on the definition and management of anaphylaxis: summary report--second National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network symposium. Ann Emerg Med 2006;47(4):373–80.
2. Moellman JJ, Bernstein JA, Lindsell C, et al. A consensus parameter for the evaluation and management of angioedema in the emergency department. Acad Emerg Med 2014;21(4):469–84.
3. Singer E, Zodda D. Allergy And Anaphylaxis: Principles Of Acute Emergency Management. Emerg Med Pract 2015;17(8):1–19; quiz 20.

Last updated 7/1/2019

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
ATRIAL FIBRILLATION PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients

INCLUSION CRITERIA	***EXCLUSION CRITERIA***
• Recent onset atrial fibrillation (<48 hours) • Atrial fibrillation requiring rate control or initiation of non-DOAC anticoagulation	• Additional diagnosis requiring inpatient care (Ex. decompensated CHF, MI, PE, sepsis) • Hemodynamic instability or signs of cardiac ischemia (active chest pain, ST-segment changes, respiratory distress, hypoxia, SBP <90) • HR >150 or requiring IV drip therapy to control rate

INTERVENTIONS

- Telemetry monitoring
- Rate control (transition to PO medications)
- Cardiology consultation as indicated
- Cardioversion (electrical or chemical) if candidate and available[1]
- Echocardiogram (if new onset AFIB or no previous ECHO)
- Anticoagulation (With regards to $CHADS_2VASC$ and renal function)

DISPOSITION

Home:
- Adequate symptom and rate control on PO medications OR conversion to normal sinus rhythm for >6 hours
- Adequate follow up plan including cardiology appointment and access to rate control and anticoagulation prescriptions

Admission:
- Deterioration in clinical status
- Identification of underlying etiology that needs further management
- Inability to achieve symptom or rate control with PO medications in 48 hours

[1] Availability of cardioversion is varies based on multiple factors including electrophysiologist availability (typically Thursday & Friday), TEE, anesthesia, CCU bed availability.

Last updated 12/19/2019
Authored by M. Turner MD
Reviewed by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, I. DeSouza, P. Koneru, and S. Brewster MD

ED OBSERVATION UNIT:
ATRIAL FIBRILLATION PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

Sources

1. Bellew, Shawna D., et al. "Impact of an emergency department observation unit management algorithm for atrial fibrillation." *Journal of the American Heart Association* 5.2 (2016): e002984.
2. Baugh, Christopher W., et al. "Atrial fibrillation emergency department observation protocol." *Critical pathways in cardiology* 14.4 (2015): 121-133.
3. Stiell, Ian G., et al. "Variation in management of recent-onset atrial fibrillation and flutter among academic hospital emergency departments." *Annals of emergency medicine* 57.1 (2011): 13-21.
4. Van Gelder IC, et al. "Lenient versus Strict Rate Control in Patients with Atrial Fibrillation". *The New England Journal of Medicine*. 2010. 362(15):1363-73.
5. Wyse DG, et al. "A Comparison of Rate Control and Rhythm Control in Patients with Atrial Fibrillation". *The New England Journal of Medicine*. 2002. 347(23):1825-1833.
6. Baugh, C. W., Clark, C. L., Wilson, J. W., Stiell, I. G., Kocheril, A. G., Luck, K. K., ... & Williams, J. M. (2018). Creation and implementation of an outpatient pathway for atrial fibrillation in the emergency department setting: results of an expert panel. *Academic Emergency Medicine*, *25*(9), 1065-1075.
7. Cristoni L, Tampieri A, Mucci F, Iannone P, Venturi A, Cavazza M, et al. Cardioversion of acute atrial fibrillation in the short observation unit: comparison of a protocol focused on electrical cardioversion with simple antiarrhythmic treatment. Emerg Med J 2011;28(11):932-7.
8. Pluymaekers N, Dudink E, Luermans J, Meeder JG, Lenderink T, Widdershoven J, et al. Early or Delayed Cardioversion in Recent-Onset Atrial Fibrillation. N Engl J Med 2019; 380(16):1499-1508.
9. Stiell IG, Scheuermeyer FX, Vadeboncoeur A, Angaran PM, Eagles D, Graham ID, et al. CAEP Acute Atrial Fibrillation/Flutter Best Practices Checklist. CJEM 2018; 20(3):334-42.

Last updated 12/19/2019
Authored by M. Turner MD
Reviewed by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, I. DeSouza, P. Koneru, and S. Brewster MD

ED OBSERVATION UNIT:
ASTHMA GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA
• History of asthma • Initial treatment (nebulizers, steroids, magnesium) and intermediate response (improvement but still wheezing) • Able to speak full phrases/sentences

EXCLUSION CRITERIA*	
Hemodynamic instability	• O_2 < 92%, HR >120, RR > 30, SBP < 90 mmHg • Pulsus paradoxus > 25 mmHg
Exam	• Absent breath sounds (silent chest) • Change in mental status - agitation, anxiety, lethargy, drowsy, confused • Unable to speak sentences or phrases • Accessory muscle use • Inability to lie in supine position • Cyanosis
Testing	• Peak expiratory flow rate < 40% of baseline or predicted** • Hypercapnia - $PaCO_2$ > 45 mmHg on VBG • Radiographic evidence of complication requiring inpatient treatment (ie, PTX, PNA) • Cardiac dysrhythmia (ie, SVT)
ER Interventions	• Mechanical or NIPPV*** • Epinephrine or terbutaline (excluding pre-hospital)
Other	• Any other need for inpatient admission • Any factor that will preclude discharge in 48 hours

***** Criteria extrapolated from Milliman admission guidelines and the National Heart, Lung, and Blood Institute's description of severe asthma and high risk features of imminent respiratory failure.[1-3]

******Refer to Mdcalc.com or Table 1 if height not available

The use of NIPPV in asthma is not standard care and is lacking in high quality evidence.[4-5] There is practice variation among ER providers and therefore whether or not a patient was placed on NIPPV should ***not independently rule out or rule in a severe asthma exacerbation. Please refer to exclusion criteria.

Last updated 7/1/2019

Authored by E.Tang MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
ASTHMA GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

INTERVENTIONS

- Bronchodilator nebulizers treatments q2-q4h
- Steroids
- Supplemental O2 prn
- Serial peak flow measurements
- ED Care management consult
- Asthma education - compliance, identifying triggers, MDI teaching, smoking cessation

Persistent or worsening symptoms < 48 hr L.O.S.

- Increase frequency of nebulizer treatments
- IV Magnesium sulfate
- IV steroids
- Consider continuous nebs/IM epinephrine and transfer to CCT for further stabilization if severe deterioration

DISPOSITION

Home:

- Major resolution of sob/wheezing
- Peak flow >70% of predicted/baseline or significant improvement from baseline
- Ambulating comfortably
- Ensured follow up (PMD or Asthma/Chest clinic)
- Medication prescribed
- Consider escalation of oupt controller meds using stepwise approach if already compliant

Admission:

- Clinical deterioration to severe asthma exacerbation or imminent respiratory failure

Last updated 7/1/2019
Authored by E.Tang MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
ASTHMA GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

Table 1: Suggested Peak Flow Rate When Height and Baseline measurements are not available [6]

Asthma Severity	Peak Flow (L/min)	
	Men	**Women**
Mild	>400	> 300
Moderate	250 - 399	200 - 299
Severe	150 - 249	120 - 200
Very Severe	<150	< 120

Sources

1. National Heart, Lung and Blood Institute: Guidelines for the Diagnosis and Management of Asthma, Expert Panel Report 3. Bethesda: National Institutes of Health Aug 2007.
2. Papiris, Spyros et al. "Clinical review: severe asthma." *Critical care (London, England)* vol. 6,1 (2001): 30-44.
3. Hodder R, Lougheed MD, Rowe BH, FitzGerald JM, Kaplan AG, McIvor RA. Management of acute asthma in adults in the emergency department: nonventilatory management. *CMAJ*. 2010;182(2):E55–E67. doi:10.1503/cmaj.080072
4. Landry A, Foran M, Koyfman A. Does Noninvasive Positive-Pressure Ventilation Improve Outcomes in Severe Asthma Exacerbations? Ann Emerg Med 2013;62(6):594-596
5. Lim WJ, Mohammed Akram R, Carson KV, Mysore S, Labiszewski NA, Wedzicha JA, Rowe BH, Smith BJ. Non-invasive positive pressure ventilation for treatment of respiratory failure due to severe acute exacerbations of asthma. Cochrane Database Syst Rev. 2012 Dec 12;12:CD004360.
6. Tsai CL, Clark S, Camargo CA, Jr. Risk stratification for hospitalization in acute asthma: the CHOP classification tree. Am J Emerg Med. 2010;28(7):803-808.

ED OBSERVATION UNIT:
CELLULITIS PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA

- Drainage of abscess if present
- Failed outpatient therapy or clinician determined requirement for IV antibiotics

EXCLUSION CRITERIA

- Suspected or confirmed severe sepsis
- Immunosuppression
- Peri-orbital or orbital cellulitis
- Suspicion for necrotizing fasciitis, fournier's gangrene or ludwig's angina
- Associated with bite/puncture wound, or diabetic ulcer
- Face or hand cellulitis indicates evaluation by orthopedics or general surgery for admission to their service
- Post operative infection
- Extensive tissue damage, sloughing

INTERVENTIONS

- Antibiotics (IV/Oral)
- Analgesics and Anti-inflammatories
- Limb elevation/immobilization
- Imaging, if indicated
- Care management if indicated
- IV Fluids as needed

DISPOSITION

Home:
- Improvement in clinical condition
- Area of cellulitis not increasing

Admission:
- Spread or worsening of infection
- Signs of systemic illness
- No response to therapy or rising WBC

Last updated 7/1/2019

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
CHEST PAIN PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Primary complaint of chest pain • HEART Score 4-6	• High risk (HEART ≥ 7) • Positive cardiac enzymes • Clinical impression for alternate high mortality diagnosis (trauma, PE, aortic dissection)

INTERVENTIONS	*OPTIONAL INTERVENTIONS*
• Telemetry monitoring • Repeat EKG for active or worsening chest pain • Troponins trended x 2-3 measurements • Routine cardiology consults or inpatient stress testing is not indicated • Routine ECHOs are not indicated • Aspirin (if not done and no contraindications) • Referral to cardiology clinic within 72 hours for higher risk patients	• Nitroglycerin • Supplemental oxygen • Chest X-ray

DISPOSITION	
Home: • Normal cardiac enzymes • Negative stress testing (if performed) • No significant EKG changes • ED attending not suspecting cardiac ischemia	**Admission:** • Positive cardiac enzymes • Worsening or lack of improvement • Significant EKG changes • Significant stress test abnormality

Last updated 7/1/2019
Authored by A. Cai MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD
Reviewed by I. Desouza MD, R. Sinert MD

ED OBSERVATION UNIT:
CHEST PAIN PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

Sources

1. Mahler, S. A. et al. Safely Identifying Emergency Department Patients With Acute Chest Pain for Early Discharge. Circulation 138, 2456–2468 (2018).
2. Long, B. & Koyfman, A. Best Clinical Practice: Current Controversies in Evaluation of Low-Risk Chest Pain-Part 1. J. Emerg. Med. 51, 668–676 (2016).
3. Foy, A. J., Liu, G., Davidson, W. R., Jr, Sciamanna, C. & Leslie, D. L. Comparative effectiveness of diagnostic testing strategies in emergency department patients with chest pain: an analysis of downstream testing, interventions, and outcomes. JAMA Intern. Med. 175, 428–436 (2015).
4. Amsterdam, E. A. et al. Testing of low-risk patients presenting to the emergency department with chest pain: a scientific statement from the American Heart Association. Circulation 122, 1756–1776 (2010).
5. Finnerty, N. M. & Weinstock, M. B. Can the HEART Score Rule Out Acute Coronary Syndromes in the Emergency Department? Ann. Emerg. Med. 72, 668–669 (2018).
6. Tomaszewski, C. A., Nestler, D., Shah, K. H., Sudhir, A. & Brown, M. D. Clinical Policy: Critical Issues in the Evaluation and Management of Emergency Department Patients With Suspected Non–ST-Elevation Acute Coronary Syndromes (Executive Summary). Ann. Emerg. Med. 72, 556–557 (2018).

Last updated 7/1/2019

Authored by A. Cai MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

Reviewed by I. Desouza MD, R. Sinert MD

ED OBSERVATION UNIT:
COPD EXACERBATION PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*

• Past history of COPD
• Initial treatment (nebulizers, steroids, antibiotics) and improvement in ED
	• Evidence of CO2 narcosis
	• RR > 35
	• Clinical condition or vital signs outside parameters for obs unit
	• Factors precluding discharge in <48 hours
	• Need for NIPPV manifested by at least one of:
	  ○ Respiratory acidosis (pH < 7.3)
	  ○ Persistent hypoxemia refractory to supplemental oxygen
	  ○ Severe dyspnea with signs of respiratory muscle fatigue, increased WOB, or both.

INTERVENTIONS	*OPTIONAL INTERVENTIONS*
• Serial vital signs every 2-4 hours • Bronchodilator nebulizer (ß2 agonists and/or anticholinergic) treatments every 1-4 hours • Intravenous or oral corticosteroids • Asthma/MDI teaching/Smoking cessation	• Prophylactic antibiotics • Supplemental oxygen • Pulse Oximetry (stationary or ambulatory) • Magnesium sulfate • Chest X-ray Imaging • Arterial blood gas • Serial peak flow measurements

Last updated 7/1/2019.
Authored by R. Balakrishnan MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
COPD EXACERBATION PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: ● Bronchodilator nebulizer requirement > every 4 hours ● Major resolution of dyspnea/wheezing ● Ambulating comfortably ● Adequate follow-up plan (<4 weeks after discharge)	**Admission:** ● Clinical deterioration ● Lack of improvement ● RR>30 after >8 hours of treatment

Source

1. 2019 Global Strategy - GOLD Main Report. https://goldcopd.org/wp-content/uploads/2018/11/GOLD-2019-v1.7-FINAL-14Nov2018-WMS.pdf

Last updated 7/1/2019.

Authored by R. Balakrishnan MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
DEEP VEIN THROMBOSIS PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA

- Confirmed DVT
- No procedural intervention necessary

EXCLUSION CRITERIA

- Extensive thrombosis (e.g. extending to IVC or above ileofemoral bifurcation)
- Planned thrombolysis or embolectomy
- Planned placement of IVC filter
- Limb threatening (e.g. evidence of arterial insufficiency, compartment syndrome, gangrene, etc)
- Active bleeding or high risk for bleeding (GI bleed ≤ 2 weeks, CVA ≤ 1 month, bleeding disorder, platelets < 75 $x10^9$/L, severe hypertension, severe liver impairment)
- Change in baseline ambulatory status
- Psychosocial barriers to home anticoagulation treatment (i.e. inability to self-administer anticoagulant or lack of necessary social support)

INTERVENTIONS

- Initiate full dose anticoagulation with LMWH. Transition to DOAC therapy if feasible.
- Rx for LMWH/DOAC (confirm pharmacy availability and insurance coverage of selected agent)
- Patient education (lovenox self-administration teaching if needed)
- Care management and/or social work consult

Last updated 7/1/2019
Authored by K. Christophe MD

ED OBSERVATION UNIT:
DEEP VEIN THROMBOSIS PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: ● Resolution of initial barriers to discharge ● Patient education complete ● Rx confirmed received and covered by insurance at patient's pharmacy	**Admission:** ● Clinical deterioration ● Bleeding complication ● Need for initiation of coumadin

Sources

1. American College of Emergency Physicians Clinical Policies Subcommittee on Thromboembolic D, Wolf SJ, Hahn SA, et al. Clinical Policy: Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department With Suspected Acute Venous Thromboembolic Disease. Ann Emerg Med. 2018;71(5):e59-e109.
2. Mazzolai L, Aboyans V, Ageno W, et al. Diagnosis and management of acute deep vein thrombosis: a joint consensus document from the European Society of Cardiology working groups of aorta and peripheral vascular diseases and pulmonary circulation and right ventricular function. Eur Heart J. 2018;39(47):4208-4218.
3. Kearon C, Akl EA, Ornelas J, et al. Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. Chest. 2016;149(2):315-352.

Last updated 7/1/2019

Authored by K. Christophe MD

ED OBSERVATION UNIT:
HYPERGLYCEMIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Blood glucose > 400 mg/dL with metabolic derangements (especially for new diagnosis of diabetes) • Treatable cause (e.g. medication noncompliance, UTI, abscess) if present	• Ketoacidosis requiring continuous IV insulin therapy (e.g. pH < 7.3, CO2 < 18, anion gap > 15 with evidence of ketones [beta-hydroxybutyrate or urine ketones]. No specific level of BHB is diagnostic or specific for DKA requiring IV insulin) • Serious precipitating cause that would otherwise necessitate admission • Hyperosmotic non-ketotic coma

INTERVENTIONS

- Serial finger stick glucose
- Insulin administration
- IV fluid administration
- Electrolyte monitoring and administration as indicated
- Treatment of precipitating cause
- Diabetic counseling
- Care management

DISPOSITION

Home:

- Precipitating factor(s) addressed if present
- Adequate follow up including 72 hour follow up for new onset DM

Admission:

- Deterioration of clinical status
- Widening anion gap or increasing ketones which may necessitate the use of IV insulin infusion

Last updated 7/1/2019

Authored by T. Conrad MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
HYPERGLYCEMIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

Sources

1. Arora S, Henderson SO, Long T, Menchine M. Diagnostic accuracy of point-of-care testing for diabetic ketoacidosis at emergency-department triage: {beta}-hydroxybutyrate versus the urine dipstick. Diabetes care. 2011;34(4):852-854.
2. Brooke J, Stiell M, Ojo O. Evaluation of the Accuracy of Capillary Hydroxybutyrate Measurement Compared with Other Measurements in the Diagnosis of Diabetic Ketoacidosis: A Systematic Review. International journal of environmental research and public health. 2016;13(9).
3. Driver BE, Klein LR, Cole JB, Prekker ME, Fagerstrom ET, Miner JR. Comparison of two glycemic discharge goals in ED patients with hyperglycemia, a randomized trial. Am J Emerg Med. 2018.
4. Driver BE, Olives TD, Bischof JE, Salmen MR, Miner JR. Discharge Glucose Is Not Associated With Short-Term Adverse Outcomes in Emergency Department Patients With Moderate to Severe Hyperglycemia. Ann Emerg Med. 2016;68(6):697-705.e693.
5. Ferguson I, Mullins ME. Diagnostic accuracy of fingerstick beta-hydroxybutyrate for ketonuria in pregnant women with nausea and vomiting. Academic emergency medicine : official journal of the Society for Academic Emergency Medicine. 2013;20(9):954-956.
6. Mahler SA, Conrad SA, Wang H, Arnold TC. Resuscitation with balanced electrolyte solution prevents hyperchloremic metabolic acidosis in patients with diabetic ketoacidosis. Am J Emerg Med. 2011;29(6):670-674.
7. Naunheim R, Jang TJ, Banet G, Richmond A, McGill J. Point-of-care Test Identifies Diabetic Ketoacidosis at Triage. Acad Emergency Med. 2006;13(6):683-685.
8. Tran TTT, Pease A, Wood AJ, et al. Review of Evidence for Adult Diabetic Ketoacidosis Management Protocols. Frontiers in endocrinology. 2017;8:106.
9. Zehtabchi S, Sinert R, Wallace D, et al. Is routine electrolyte testing necessary for diabetic patients who present to the emergency department with moderate hyperglycemia? European journal of emergency medicine : official journal of the European Society for Emergency Medicine. 2007;14(2):82-86.

Last updated 7/1/2019

Authored by T. Conrad MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
HYPOGLYCEMIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Type 1 or Type 2 Diabetes Mellitus • Hypoglycemia requiring repeat glucose monitoring and intervention > 8 hours • Readily treatable cause if present	• Altered mental status despite glucose administration • Intentional overdose of hypoglycemic agent • Blood sugar < 50 on repeat measurement despite appropriate intervention • Requirement of D10 drop or greater to maintain euglycemia • Serious precipitating cause requiring admission

INTERVENTIONS

- Serial finger stick glucose measurement
- Dextrose administration
- IV fluids
- Octreotide (75ug SQ should be used if glucose administration is required when sulfonylureas are implicated, with monitoring 12 hours post administration. Not necessary in all cases of sulfonylurea cause when PO diet suffices.)
- Electrolyte monitoring and administration as indicated
- Diabetic counseling as indicated

DISPOSITION

Home:
- Blood sugars over 80 mg/dL following required monitoring period
- Capable adult supervision
- Precipitating factor(s) addressed if present

Admission:
- Deterioration of clinical status
- Persistent neurological deficits
- Requiring repeat doses of octreotide (as monitoring for 12 hours at a minimum post dose is recommended)
- Blood sugars < 80mg

Last updated 7/1/2019
Authored by T. Conrad MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
HYPOGLYCEMIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

Sources

1. Johansen NJ, Christensen MB. A Systematic Review on Insulin Overdose Cases: Clinical Course, Complications and Treatment Options. Basic & clinical pharmacology & toxicology. 2018;122(6):650-659.
2. Klein-Schwartz W, Stassinos GL, Isbister GK. Treatment of sulfonylurea and insulin overdose. Br J Clin Pharmacol. 2016;81(3):496-504.
3. Spiller HA. Management of antidiabetic medications in overdose. Drug safety. 1998;19(5):411-424.
4. Spiller HA, Sawyer TS. Toxicology of oral antidiabetic medications. American Journal of Health-System Pharmacy. 2006;63(10):929-938.

Last updated 7/1/2019

Authored by T. Conrad MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
PENDING PROCEDURE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Pending procedure • Agreement from service performing procedure (e.g. IR, GI) that procedure will be completed within observation time window	• Inability to confirm timely completion of procedure or anticipated post-procedure observation past observation window

INTERVENTIONS
• Pre-procedure labs as needed • NPO or diet as indicated

DISPOSITION	
Home: • Resolution of symptoms	**Admission:** • Testing abnormality or complication requiring admission

Last updated 7/1/2019

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
PNEUMONIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• History and Physical Exam consistent with Pneumonia • Chest imaging (CXR, CT Chest, US reviewed by US trained attending) consistent with acute pneumonia • PSI score of II or III or CURB-65 score of 2	• High suspicion of TB • Known HIV/AIDS or Immunosuppresion (chemotherapy, chronic corticosteroid, asplenic patients, etc.) • Complicating alternative diagnosis • Risk factors for poor outcome (hypoxemia, gross hemoptysis, cavitary infiltrate, immunocompromised, cystic fibrosis, TB, neuromuscular weakness)

INTERVENTIONS
• O2 monitoring and supplemental O2 as needed • IV or PO Antibiotics (Macrolide and Beta-Lactam or Respiratory Fluoroquinolone) • IV or PO hydration • Smoking Cessation Counseling

Last updated 7/1/2019
Authored by Gururaj Shan
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
PNEUMONIA PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: ● Mental Status at baseline ● Ambulatory or at baseline ADLs ● Hypoxemia absent, Oxygen requirement at baseline ● Tachypnea absent ● Fever absent ● Adequate oral intake ● Able to obtain outpatient antibiotic therapy	**Admission:** ● Hypoxemia ● Severe or Persistent AMS or Dehydration ● Bacteremia ● PSI Score II or II, CURB-65 score of 2 that is not improving with observation treatment ● Failure to respond to antibiotic or adverse event due to medication ● Worsening of comorbid conditions (e.g CHF) ● Complicated pleural effusion

Sources

1. Mandell, Lionel A., et al. “Infectious Diseases Society of America/American Thoracic Society Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults.” Clinical Infectious Diseases, vol. 44, no. Supplement_2, 2007, doi:10.1086/511159.

2. “Pneumonia: Observation Care.” MCG Health Inpatient & Surgical Care, 11 Feb. 2019.

3. “Pneumonia RRG.” MCG Health Inpatient & Surgical Care, 11 Feb. 2019.

Last updated 7/1/2019

Authored by Gururaj Shan

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
PULMONARY EMBOLISM PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA

- Confirmed pulmonary embolism
- Hemodynamically stable
- No procedural intervention necessary

EXCLUSION CRITERIA

- Non low-risk pulmonary embolism (sPESI > 0)
- Hestia score > 1 that is unlikely to be resolved w/in 48 hours
- Planned thrombolysis or embolectomy
- Active bleeding or high risk for bleeding
- Supplemental oxygen requirement to maintain sat > 90%
- Evidence of right heart strain manifested by:
    - Presence of McConnell's sign, D-sign, or septal bowing on ED bedside ultrasound as per determination of attending physician
    - Troponemia or BNP greater than upper limit of normal, or greater than the patient's baseline
- Psychosocial barriers to home anticoagulation treatment (i.e. inability to self-administer anticoagulant or lack of necessary social support)
- End Stage Renal Disease

INTERVENTIONS

- Initiate full dose anticoagulation with LMWH. Transition to DOAC therapy if feasible.
- Rx for LMWH/DOAC (confirm pharmacy availability and insurance coverage of selected agent)
- Patient education (lovenox self-administration teaching if needed)
- Care management and/or social work consult

Last updated 7/1/2019
Authored by K. Christophe MD
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
PULMONARY EMBOLISM PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

DISPOSITION	
Home: ● Resolution of any initial Hestia criteria ● Patient education complete ● Rx confirmed received and covered by insurance at patient's pharmacy	**Admission:** ● Clinical deterioration ● Unresolved Hestia criteria ● Bleeding complication ● Need for initiation of coumadin

Sources

1. American College of Emergency Physicians Clinical Policies Subcommittee on Thromboembolic D, Wolf SJ, Hahn SA, et al. Clinical Policy: Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department With Suspected Acute Venous Thromboembolic Disease. *Ann Emerg Med.* 2018;71(5):e59-e109.
2. Kearon C, Akl EA, Ornelas J, et al. Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. *Chest.* 2016;149(2):315-352.
3. Aujesky D, Roy PM, Verschuren F, et al. Outpatient versus inpatient treatment for patients with acute pulmonary embolism: an international, open-label, randomised, non-inferiority trial. *Lancet.* 2011;378(9785):41-48.
4. Zondag W, Mos IC, Creemers-Schild D, et al. Outpatient treatment in patients with acute pulmonary embolism: the Hestia Study. *J Thromb Haemost.* 2011;9(8):1500-1507.
5. Jimenez D, Aujesky D, Moores L, et al. Simplification of the pulmonary embolism severity index for prognostication in patients with acute symptomatic pulmonary embolism. *Arch Intern Med.* 2010;170(15):1383-1389.

Last updated 7/1/2019

Authored by K. Christophe MD

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

SOCIAL ADMISSIONS CLINICAL GUIDELINE

ED OBS UNIT - NYC H+H KINGS COUNTY HOSPITAL CENTER

PURPOSE AND ESCALATION
To create a process where patients who do not meet medical necessity for admission and are admitted for unsafe discharge or for "social admissions". In contrary to the general exclusions of the observation unit, patients who are not ambulatory (demented, bed bound, need extensive nursing care) and have no other medical indication for admission, are still able to be placed on observation status. If observation attending does not think patient meets criteria for observation status, then observation attending will escalate issue through the department escalation policies.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Pt. requires assisted living arrangements, i.e. home care • Family requires assistance with home care needs • Needs sub-acute rehab placement/long term care placement • Needs to return to shelter • High probability of care arrangement within 48 hrs. • Requires DME (including oxygen)/medical supplies • Needs medications requiring insurance authorizations or pre-authorization • Unsafe discharge who does not meet medical necessity for inpatient services	• Patient has acute medical condition that requires inpatient care • Meets other general observation exclusion criteria except for inability to ambulate

SOCIAL ADMISSIONS CLINICAL GUIDELINE

ED OBS UNIT - NYC H+H KINGS COUNTY HOSPITAL CENTER

INTERVENTIONS

1. Consult Social worker, Case Manager, and Physical Therapy (these should be initiated even prior to placement into observation status)
2. Consult Home Care as needed.

DISPOSITION

Home/Long Term Care Placement:

a. Safe discharge plan for home or Long Term Care Facility/Subacute Rehab established
b. Placement not possible, family willing to take patient home

Admission:

a. Inability to find appropriate placement within 48 hours and reasonable effort has been attempted to place patient with no expectation to find placement in by 72 hours.
b. Change in pt.'s clinical status requiring inpatient hospitalization

Created 08/08/2018 Revised 05/01/2019 Revised 7/11/19

Last Reviewed by:

Rajesh Verma, MD Chief, Emergency Medicine

Selwena Brewster MD, Observation Co- Director

Diahann Singh, RN, Director, Nursing Emergency Medicine

Sean Studer, MD Chief, Medicine

Sarah Abraham Director, Social Work

Ingrid Allen Greene, Associate Director, Case Management

Konstantinos Agoritsas, MD Associate Chief Medical Officer- Hospital Operations

ED OBSERVATION UNIT:
SYNCOPE/PRESYNCOPE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA

- Syncopal or near syncopal episode which cannot be safely discharged home from the ED after initial evaluation
- Minimum ED Intervention: ECG, IV placement, labs including CBC, +/- Troponin, Urine pregnancy in females of child bearing age, AICD/Pacemaker Interrogation if present, +/- Orthostatics and rectal exam

EXCLUSION CRITERIA

- Acutely Intoxicated
- Suspicion of acute stroke, TIA or new focal deficit.
- New seizure disorder
- History of or highly suspected ventricular arrhythmia (i.e., EF ≤ 35%)
- History of significant valvular disease
- Acute ECG changes, bundle branch block, or significant arrhythmias (v. tach, a. fib, bradycardia,brugada, WPW, bifasciular or complete heart block), Prolonged Qtc (>500ms), new ST/T wave changes
- Confirmed presence of dysfunctional cardiac device (PPM, AICD, LVAD)
- Serious cause suspected, e.g. ACS, PE, GI bleed, sepsis, AAA, Aortic Dissection, intracranial bleed, etc.
- Significant injury (fracture, intracranial hemorrhage). Lacerations acceptable.
- Elevated troponin from baseline or significant anemia

Last updated 7/1/2019

Revised by S. Jones MD, T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
SYNCOPE/PRESYNCOPE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

INTERVENTIONS

- Neuro checks with serial exams
- Minimum 24 hour Telemetry monitoring

Additional work up as indicated based on patient

- Cardiac: Serial EKGs, serial troponins, echocardiogram if suspicion of valvular disease (new murmur), heart failure, arrhythmia, structural heart disease (HOCM); Cardiac stress testing; tilt testing; Holter monitoring; EP consult; Cardiology Consult; bilateral carotid duplex if concern for carotid stenosis
- Neuro: serial neuro checks, Head CT, EEG, Neurology consult
- Orthostatics

DISPOSITION

Home:

- No Cardiac/Tele Monitor Events
- Resolution of symptoms if applicable

Admission:

- Rising Troponin
- Symptoms not improved or worsening

Last updated 7/1/2019

Revised by S. Jones MD, T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
TRANSFUSIONS PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Consent for blood products • Lab evidence of transfusion requirement	• Lack of working IV compatible with blood transfusion • Evidence of end organ damage • CHF • Hemoglobin drop < 4 g/dL or drop of 4 g/dL from baseline in 2 weeks • Anticoagulation use (excluding ASA) • Active bleeding during ED visit that has not achieved source control • Associated thrombocytopenia or pancytopenia

INTERVENTIONS

- Serial vitals and exams every 4-6 hours
- Telemetry and pulse oximetry monitoring as indicated
- Blood product transfusion
- Type and crossmatch (second set if required)
- Diet
- Post-transfusion CBC

DISPOSITION

Home:
- Completion of transfusion with appropriate response

Admission:
- Adverse reaction
- Renewed bleeding
- Evidence of fluid overload

Last updated 7/1/2019
Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD

ED OBSERVATION UNIT:
TRAUMA OBSERVATION CLINICAL GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

INTRODUCTION

Trauma Observation Unit (OU) - a monitored unit, located in CG-105, that accepts patients who present in the hospital's Emergency Department (ED) who do not meet admission criteria but would benefit from a greater period of evaluation and treatment than feasible in the ED. The OU functions under the administrative oversight of the Chief of Emergency Medicine.

PURPOSE/SERVICE GUIDELINE

To provide observation, diagnosis and stabilization of trauma patients from the ED for whom diagnosis and a determination concerning admission, discharge or transfer cannot be accomplished within 8 hours but can be reasonably expected within 47 hours. The length of stay (LOS) in the OU is calculated beginning with time the ED physician's order assigns the patient to the OU. The patients are observed in the OU under the Trauma service care for a time period not to exceed a 47 hour stay, with a minimal LOS in the unit 8 hours.

TRAUMA OBSERVATION OPERATIVE GUIDELINES

1. A consult from the Trauma service MUST be obtained prior to the patient being admitted and transferred to the OU.
2. Emergency Department physician completes ED patient chart.
3. **The ED attending physician gives patient handoff to ED-OBS resident for patient safety and unit awareness (<u>not for management</u>).**
4. ED nurse or physician calls the OU to check bed availability.
5. Managed by the Trauma Consult Resident or PA
6. The on-call Trauma Attending will supervise the consult resident/ PA for all surgical issues being observed in the unit as noted with the Surgical Indications above.
7. The surgical service is responsible for writing an initial/consult note, standing orders for the patient while in the OU, and the discharge documentation if that is the patient's ultimate disposition.
8. All laboratory and other test results must be back within the allotted time of less than 47 hours from OU arrival.
9. Patents requiring treatment beyond the 48 hr. observation limit must be admitted to the supervising service.
10. The OU clerk will schedule follow-up clinic visit appointments as requested.
11. All procedures to be done in the CCT suite excluding suturing and wound care.

ED OBSERVATION UNIT:
TRAUMA OBSERVATION CLINICAL GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

SURGICAL DIAGNOSIS	*INCLUSION CRITERIA*	*EXCLUSION CRITERIA*
Head Trauma	1. Concussion with persistent symptoms 2. Blunt Head Trauma with use of anticoagulants	1. Unstable vital signs or clinical condition 2. Multi-system trauma 3. Focal Neurological deficit
Rib Fractures	1. Isolated ribs Fracture	1. Associate Hemothorax or Pneumothorax 2. Age > 65 3. Associated injuries
Pneumothorax	1. Lung collapse ≤ 10%, occult on CT	1. Unstable VS or unstable clinical condition 2. Need for chest tube placement 3. Rib fractures

ED OBSERVATION UNIT:
TRAUMA OBSERVATION CLINICAL GUIDELINES
NYC H+H KINGS COUNTY HOSPITAL CENTER

SURGICAL DIAGNOSIS	*INTERVENTIONS*	*DISCHARGE*	*INPATIENT ADMISSION/OR*
Head Trauma	1. Monitor Vital Signs and Mental Status 2. Serial Neuro Checks (Q1h-Q4h depending on clinical status) 3. Pulse Oximetry if indicated 4. Consider Neurology consultation for post-concussive syndromes	1. Baseline Mental Status 2. No focal neurologic deficits 3. Able to ambulate and tolerate PO 4. Stable VS	1. New focal neurologic deficit 2. New onset decrease in mental status 3. Hemodynamic instability
Pneumothorax (<10-15%)	1. Repeat Chest X-ray in 6-8 hours 2. Nasal O2 4L/min 3. May have regular diet as tolerated.	1. No progression and VS and O2 sat remains stable 2. Appointment to Thoracic Surgery or Trauma clinic in 1 week. 3. Return to ED if symptoms, e.g. increasing pain, SOB, etc.	1. Deterioration of clinical condition 2. Increase in pneumothorax, insert chest tube with water seal drainage

ADMISSION TO TRAUMA INPATIENT SERVICE
During the observation period (47 hours) should patients need hospitalization, they will be admitted to the Trauma inpatient unit, by using the existing admission flow (see Admission Flow Policy).

ED OBSERVATION UNIT:
VOMITING AND DEHYDRATION PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients.

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Mild to moderate dehydration • Inability to tolerate PO • Refractory to ED treatment	• Significantly abnormal electrolytes including Na < 125 mEq or > 150 mEq

INTERVENTIONS
• IV hydration • Anti-emetics PRN • Analgesia PRN • Electrolyte supplementation and repeat labs if abnormal • Advance diet as tolerated

DISPOSITION	
Home: • Resolution of symptoms • Tolerating PO fluids or medications	**Admission:** • Inability to tolerate PO fluids or medications

Last updated 7/1/2019

Revised by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, and S. Brewster MD