



CHS CDU Initiative

DELIVERING EFFICIENT STANDARDIZED CARE TO OBSERVATION PATIENTS



Educational Goals

- » Educate all providers on the impetus and goals of the CDU (Clinical Decision Unit)
- » Underscore the importance of documentation and determining correct level of care
- » Explain the process behind the design model of the CDU/Observation units
- » Explain the credentialing requirements for providers
- » Provide introduction to developed order sets



What is Observation

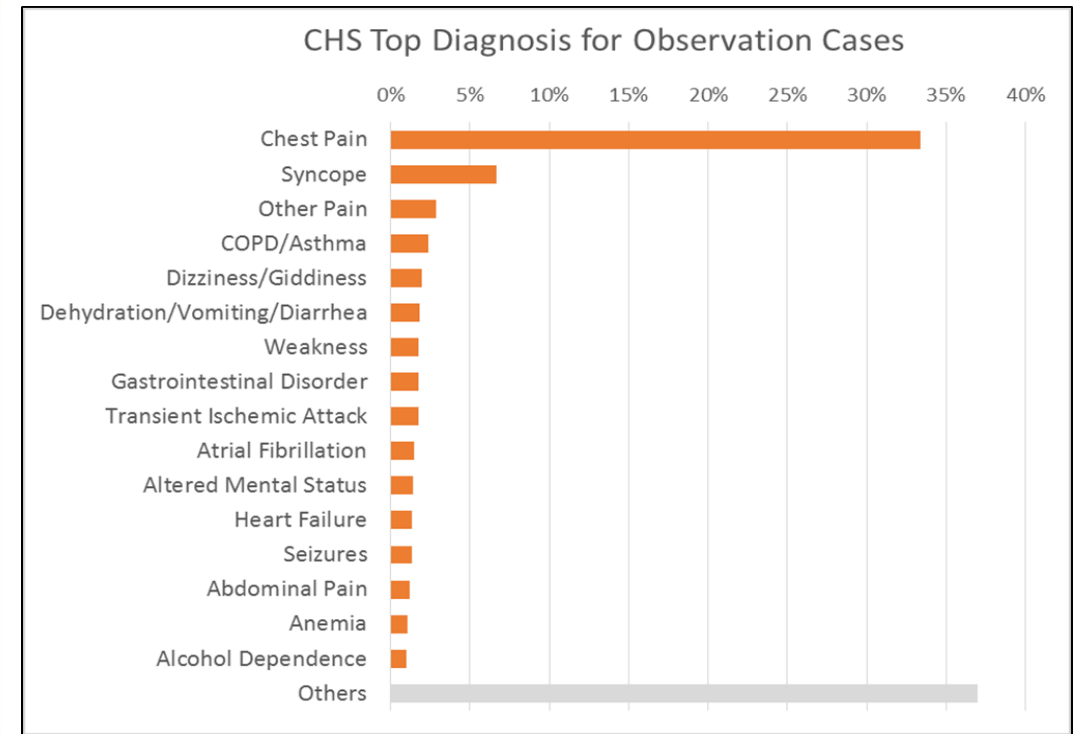
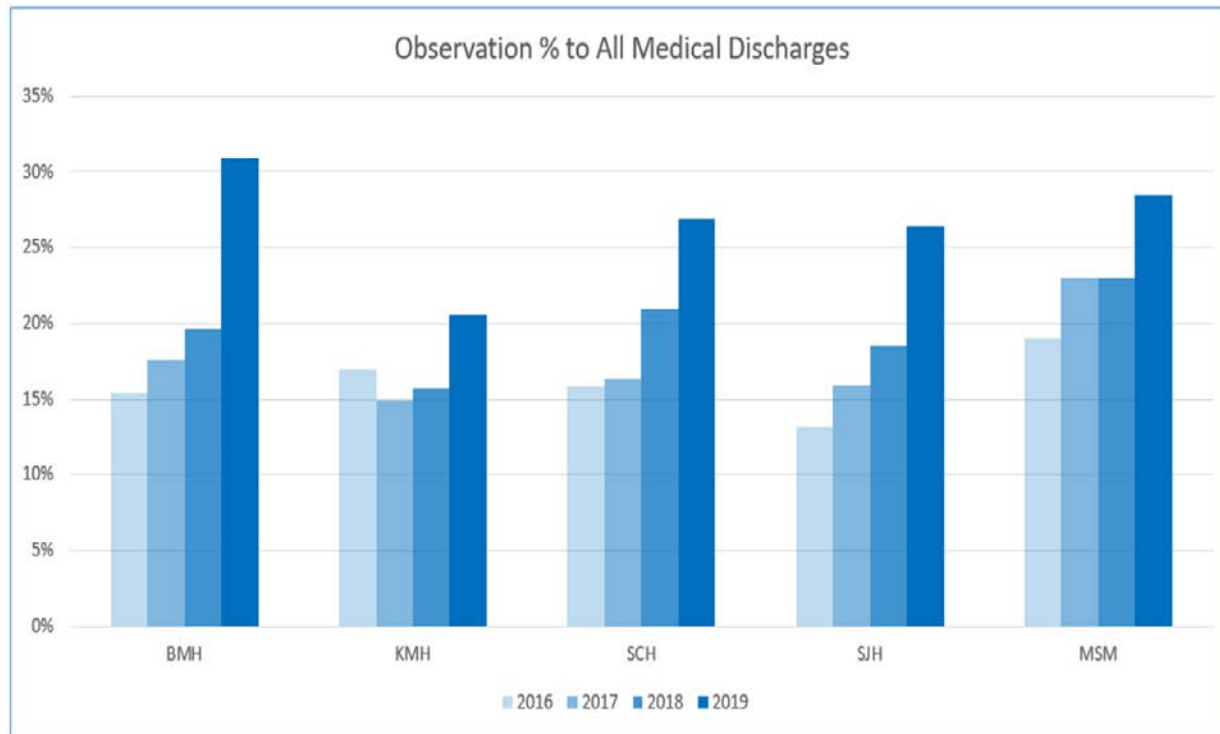
When in doubt, ask case management

The importance of CDI



Key Findings: Observation Population

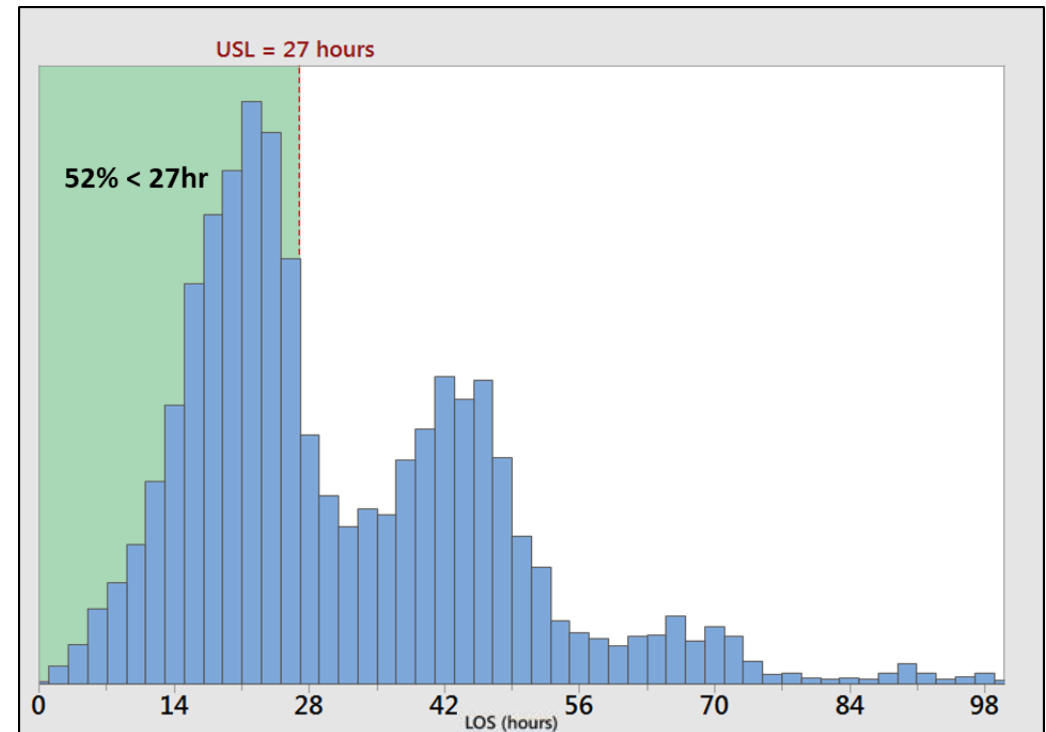
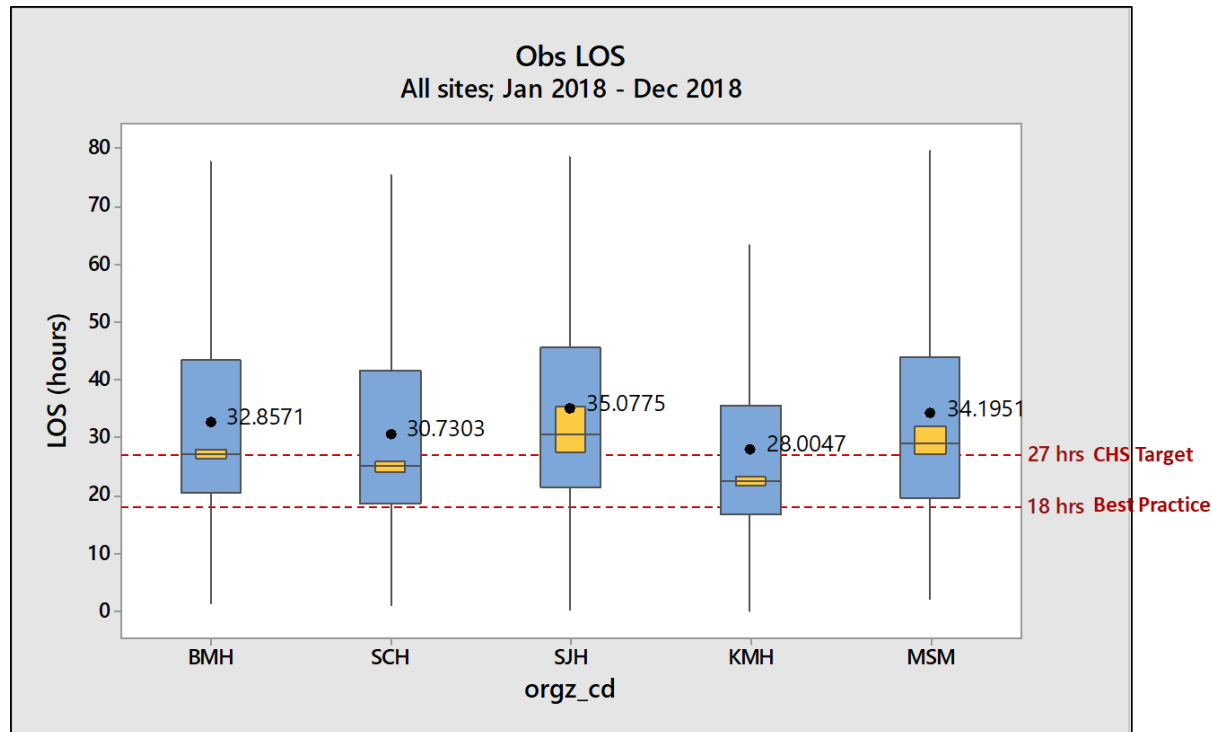
- Obs discharges as a percent of medical discharges are climbing significantly
- Chest Pain makes up nearly 1/3 of Obs discharges at each hospital





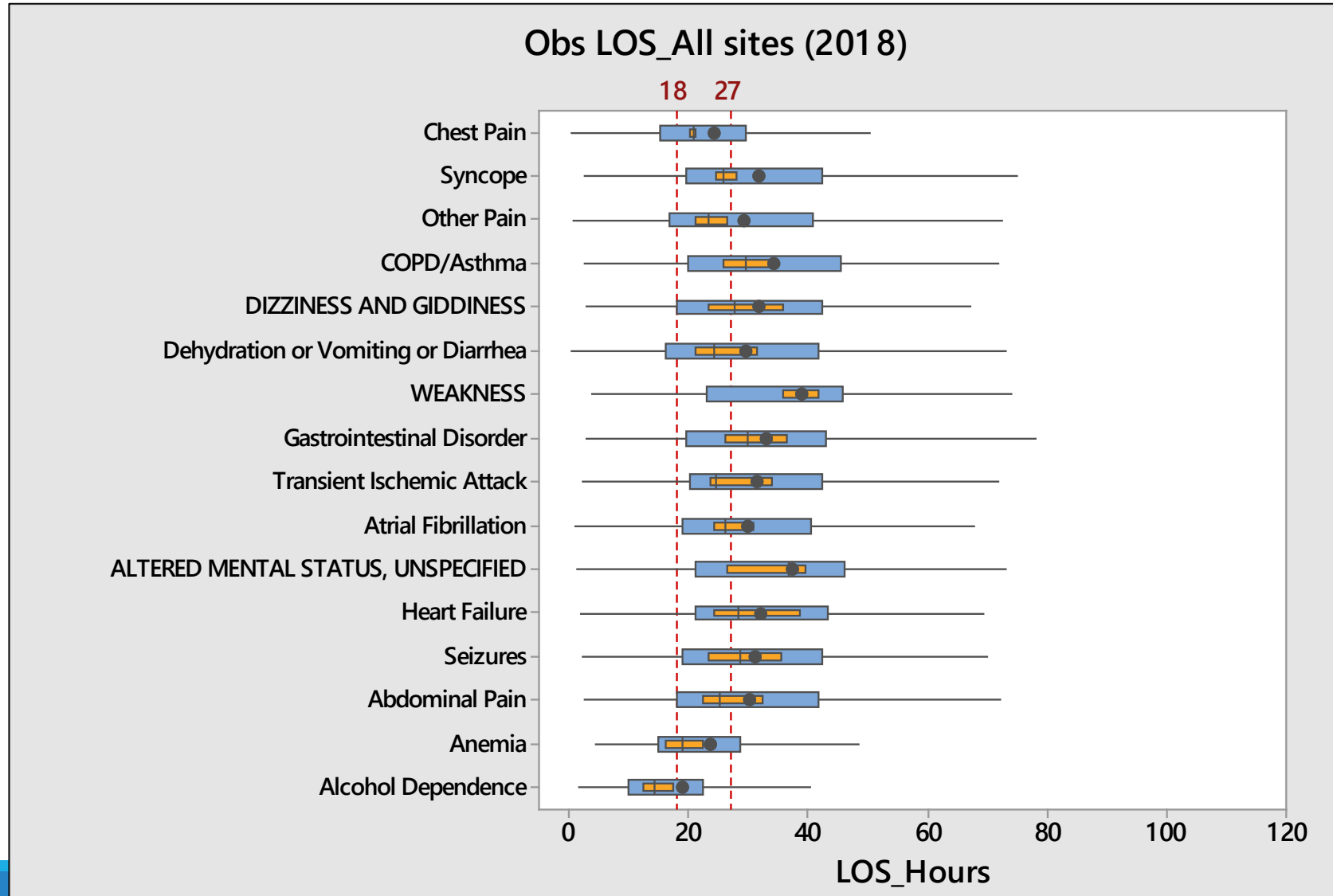
Key Findings: Observation LOS

- CH Observation LOS ranks near the bottom of the national comparative
- Obs LOS pattern is highly indicative of IP management – (24 hr. intervals)
- Also highly predicated on time of arrival – (Hour of Day and Day of Week)



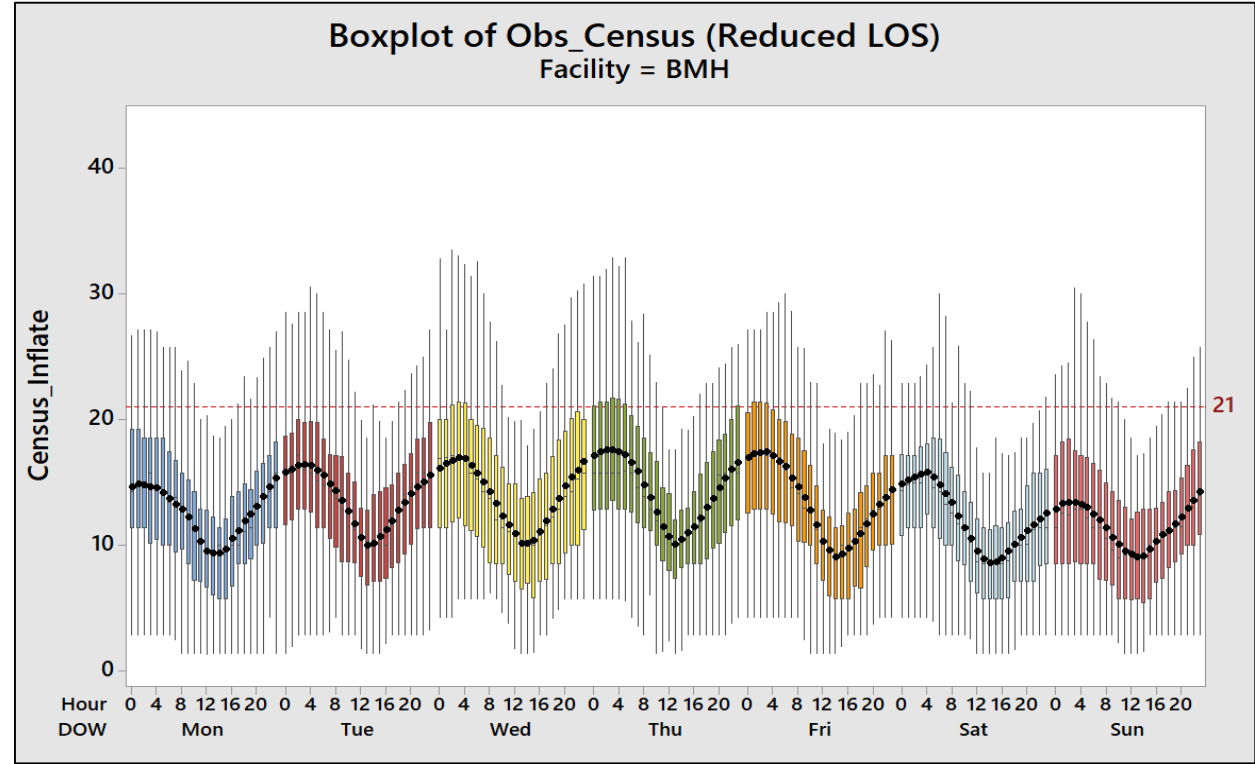
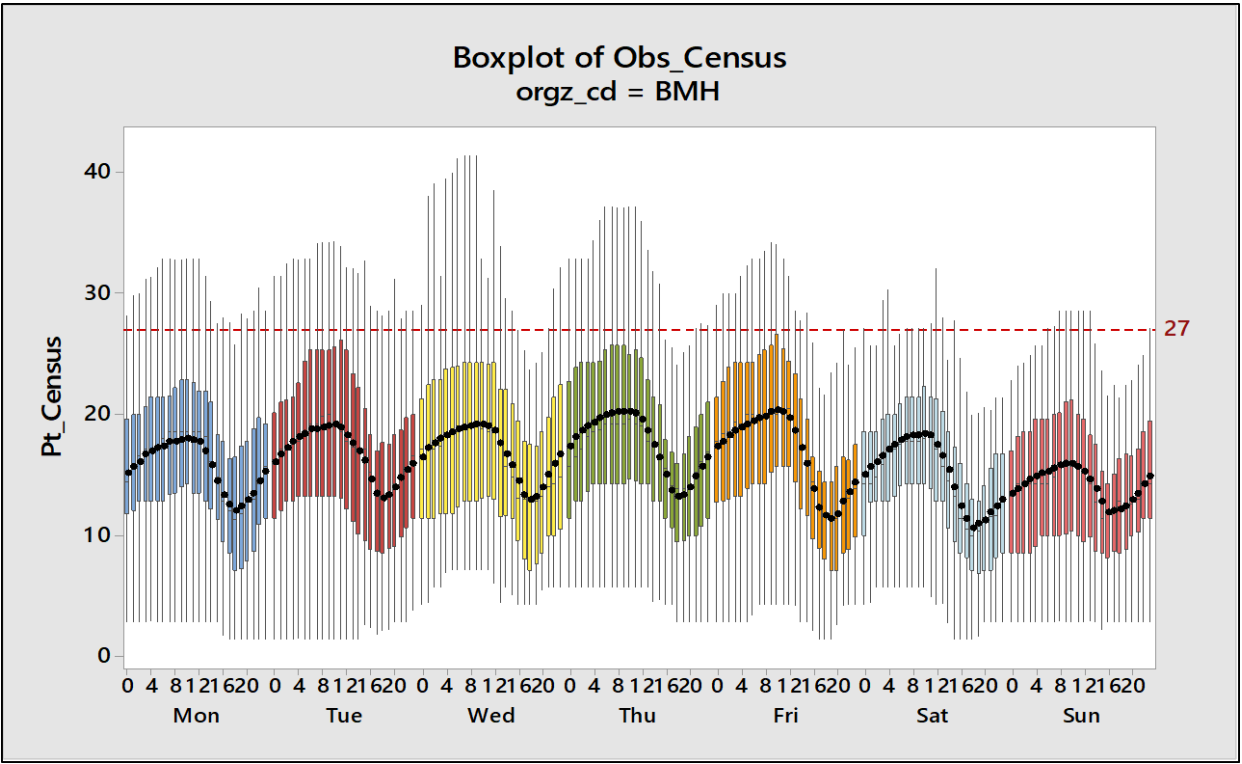
Observation Patient LOS (hours) by Top Diagnosis

LOS in hours per observation case, **excluding** cases converted from Obs status to IP admission



Impact of Observation Census with Reduced LOS

➤ How would Obs Census be impacted if the target of 27 hours was met?



	BMH	BMH (Cardiac)	KMH	MSM	SOC	SJC
Census: Current LOS	27	9	9	7	12	6
Census: 27 hr. Target	21	7	7	6	10	5

Observation Unit Type Comparison


Observation Unit Type	Staffing	Space	Ancillary Support	Advantages	Disadvantages
Type I: Protocol Driven/Dedicated OU	<ul style="list-style-type: none"> » Dedicated staff (RNs) » Training to specific procedures and documentation » Generally closed unit » Mid-level staffing possible w/ oversight 	<ul style="list-style-type: none"> » Distinct space for observation patients » Often near ED 	<ul style="list-style-type: none"> » Focused on diagnostic turnaround » Often shared with ED 	<ul style="list-style-type: none"> » Best patient outcomes and LOS » Lowest admission ratios » EBM » Space standards “outpatient” 	<ul style="list-style-type: none"> » Dedicated space may constrain capacity » Smaller hospital with lower volumes – may not be cost effective
Type II: Discretionary Care/Dedicated OU	<ul style="list-style-type: none"> » Dedicated staff (RNs) » Training to specific procedures and documentation » Generally open admissions » Mid-level staffing suggested 	<ul style="list-style-type: none"> » Distinct space for observation patients » Often near ED but also within inpatient units 	<ul style="list-style-type: none"> » Focused on diagnostic turnaround 	<ul style="list-style-type: none"> » Allows for cohorting of patients and staff » Space standards “outpatient” 	<ul style="list-style-type: none"> » More difficult to expedite care due to multiple admitters and lack of clinical guidelines

Observation Care

» General Guiding Principals:

- › Ultimately, observation care is decision-making care, which an overarching goal to make an informed and correct disposition decision quickly. Data collection and analysis that supports disposition decision-making is paramount and is a core focus for clinicians.
- › Observation care is similar to ED and ICU patient care in regards to level of diagnostic intensity.
- › Providers will need to deliver a higher-level of oversight on observation patients, given the need to make a disposition decision quickly. For example, providers will need to round more often on observation patients compared to inpatient patients.
- › Observation care must be provided on a 24/7 basis, with no disruptions in provider and diagnostic access overnight or on the weekends.

Observation Care Provider Privilege Policy

 POLICY AND PROCEDURE		
TITLE: Observation Care Provider Privilege Policy	POLICY NUMBER:	PAGE # 1 of 2
RESPONSIBLE DEPARTMENT: Medical Staff	POLICY LEVEL: Outpatient	EFFECTIVE DATE:
PREPARED BY: Hans Cassagnol, M.D. Chief Physician Executive	APPROVED BY:	
This document is not intended to create, nor is it to be construed to constitute a contract between CHS and any of its Associates for either employment or the provision of any benefit. This policy supersedes any policy previous to this policy for any CHS organizations and any descriptions of such policies in any handbook of such organization. Personnel failing to comply with this policy may subject to disciplinary action up to and including termination.		

PURPOSE: To optimize care of the acutely ill observation patient.

APPLIES TO: All observation patients, defined as those patients who have a presentation to the Emergency Department which cannot be resolved or treated within appropriate Emergency Department timeframes, and need additional monitoring and treatment before a definitive diagnosis and disposition can be made, whether that be discharge home, admission to acute care, or transfer to a post-acute facility.

POLICY: This policy is to provide optimal utilization of Observation/Clinical Decision Unit ("CDU") services at all CHS facilities. In accordance with this policy, once admitted as an observation patient, all patients must be seen as soon as appropriate by the Principal Attending, who must be readily available for ongoing evaluation as appropriate to the patient's clinical condition.

PROCEDURE: All patients admitted to the CDU will have a single provider or coverage group designated as the Principal Attending. This provider will assume the responsibility of being readily available for appropriate orders, evaluation and management of changes to the patient's clinical condition, review and response to test results, and consultant communications. Other physicians may write orders providing they are approved by the Principal Attending in the CDU.

When a patient is discharged from the CDU, the Principal CDU Attending will transfer care of the patient back to the patient's private attending or hospitalist. In some circumstances the Principal Attending physician may continue as the attending when that is most appropriate for the patient.

Observation Care Provider Privilege Policy

DEFINITIONS:

Observation Care Privileges – There are CDU privileges (defined below) that a physician may qualify for.

A. CDU Admitting Privilege Requirements:

- Will be granted to any physician that has general admission privileges for the care of acutely ill patients. Those physicians who have had residency training in general and specialty surgery, internal medicine, and family medicine, and are members of the medical staff in good standing.
- These privileges allow the physician to assume the role as principal CDU attending if otherwise qualified as described below.
- The term “readily available” in this context shall apply without regard to day or time, unless otherwise specified, as:
 - Participation in secure messaging (e.g. “Tiger texting”) with response times to staff inquiries of 15 minutes or less.
 - Initial evaluation of patients admitted to the CDU before 6pm, (1800 hours), must occur before midnight of that day, (2400 hours).
 - Any patients admitted or present in unit after 6pm, (1800 hours), must be evaluated before 7am, (0700 hours), am the following day.
 - Use of computerized provider order entry for writing and/or approval of all orders if feasible.
 - Response to staff pages within 15 minutes.
 - Direct communication with consultants, as needed, in the context of their evaluations of the patient.

2. Principal Attending Duties (for CDU patients) –

- Principal attending or his/her designee (may include another physician or mid-level under the direct supervision of the Principal Attending):
 - Must be readily available to evaluate, render care, and respond to changes in clinical status for patients after admission to the CDU.
 - Must be readily available to respond to changes in patient status, testing results, or nursing order requests.
 - Must be readily available to respond to pages and calls promptly.
 - Must use system-approved clinical protocols for patients being observed for conditions within the defined presentations/diagnoses.
 - Must comply with payor-accepted observation criteria for admission to the CDU (e.g. InterQual) and/or document appropriate clinical exceptions.
 - Must write and/or approve all orders within the system-designated computerized provider order entry platform if feasible.
 - May delegate responsibility to other subspecialists for specific orders related to that physician's specialty area i.e.: Neurosurgical orders in post-op patients.
 - Must participate in twice-daily multi-disciplinary rounds with members of Care Management, Nursing, Respiratory, Pharmacy, and other invited departments
 - Must evaluate and document patient's progress against clinical criteria for progression to either discharge or admission for acute care at minimum 12 hour intervals.



Observation Protocols/Order Sets

- Abdominal Pain
- Asthma/COPD Exacerbation
- Atrial Fibrillation
- Cellulitis
- Chest pain
- Dehydration/Nausea/Vomiting
- Congestive Heart Failure
- Pneumonia
- Syncope
- Transient Ischemic Attack
- Vertigo/Dizziness

InterQual® 2019 Physician Admission Guide

This document identifies key clinical differentiators between the Observation and Acute levels of care for clinical conditions in the Acute Adult Criteria. It is intended to serve as a guide to admitting providers to support documentation and decision making when assigning a level of care.

Conditions	Observation (6hrs ≥ and ≤ 48hrs)	Acute (> 48hrs)
Abdominal pain (non traumatic)	Susp/known infection OR MS changes OR GCS 9-14 OR Hx of abd surg OR vomiting after ≥ 2 antiemetic doses AND imaging AND NPO AND IVF	n/a
Acute Coronary Syndrome (ACS)	Chest pain free/controlled with medication AND SBP ≥ 90 AND troponin negative AND ECG normal/unchanged/LBBB/nondiagnostic	NSTEMI AND troponin positive OR unstable angina AND ischemic/paced ECG
Anaphylaxis/allergic reaction	Airway patent AND hemodynamically stable after epinephrine admin AND ≥ 2 epinephrine doses needed/Hx of biphasic reaction AND antihistamine/corticosteroid	Impending intubation OR mechanical ventilation OR NIPPV OR nebulizer/inhaler q 1-2 hr/continuous
Anemia, unknown etiology	Hct 18-25%/Hb 6.0-8.3 g/dL AND age < 65 OR asymptomatic OR non vit K oral anticoagulant	Hct < 18%/Hb < 6.0 g/dL OR Hct < 25%/Hb < 8.3 g/dL AND age ≥ 65 yrs OR Hct < 30%/Hb < 10.0 g/dL AND dyspnea OR orthostatic HTN OR presyncope OR syncope
Arrhythmia	Afib OR Aflutter AND onset < 48h AND resolved after ibutilide OR sustained after Rx and intervention/anti arrhythmic planned	Abnormal ECG AND syncope OR Afib or Aflutter sustained after Rx OR ICD and repetitive shocks OR supraventricular/wide complex/ventricular tachycardia OR bradycardia/junctional rhythm/AV block requiring intervention OR suspected drug toxicity requiring continuous cardiac monitoring (excludes Holter)
Asthma	Wheezing AND dyspnea OR HR > 100 OR O2 sat < 96% OR PEF/FEV 26-69% OR pulsus paradoxus > 10 mmHg OR use of accessory muscles AND failed OP Rx/failed ED Rx of ≥ 3 short-acting beta-agonist and ipratropium OR ≥ 2 short-acting beta-agonist and ipratropium if pregnant	Impending intubation OR wheezing unresolved after ED Rx AND DM with BS 300 OR pneumonia OR Hx of severe exacerbation/intubation/critical care admission OR pneumonia OR difficulty perceiving severity of asthma OR mental illness OR substance use disorder
Cellulitis	Animal/human bite of face/hand OR DM and BS > 300 mg/dL OR failed OP anti-infective OR peri-orbital OR purpura OR petechiae OR > 10% BSA OR > 50% limb or torso OR systemic symptom/finding	Immunocompromised OR located over a prosthesis/implanted device OR orbital
COPD	Dyspnea AND ≥ 3 doses short-acting beta-agonist AND O2sat 90-91% OR arterial Po2 56-60 mmHg OR Pco2 41-44 mmHg OR work of breathing	Impending intubation OR O2 ≥ 40% OR NIPPV OR mechanical ventilation OR dyspnea AND ≥ 3 doses short-acting beta-agonist AND O2sat ≤ 89% OR arterial Po2 ≤ 55 mmHg and pH > 7.45 OR Pco2 > 45 mmHg and pH < 7.35 OR use of accessory respiratory muscles or paradoxical chest wall movements or working of breathing or risk factor for respiratory failure (e.g., cor pulmonale, cancer, pneumonia, DM, home O2, Class III or IV HF).
Deep vein thrombosis (DVT)	DVT by US AND medication teaching	DVT by US AND bilateral OR creatinine clearance < 30 mL/min OR plt < 75,000/cu.mm OR susp HIT OR HIT by Hx OR risk for fall OR pregnant OR coagulopathy OR previous VTE OR active cancer OR liver disease OR recent stroke/surgery/trauma OR BMI ≥ 35kg/m2 OR immobilization OR home unsafe OR patient/caregiver unable to manage care.
Dehydration or gastroenteritis	Orthostatic hypotension OR Na > 150 mEq/L OR urine SG > 1.030 OR Cr 1.5-3 mg/dL OR BUN 25-45 mg/dL OR IV fluids OR vomiting after ≥ 2 antiemetic doses OR HR > 100 OR MS changes OR GCS 9-14	Failed Observation Rx AND vomiting OR diarrhea OR inadequate oral intake OR Na > 150 mEq/L AND advancing diet as tolerated OR antiemetic ≥ 3x/24/h OR serotonin antagonist ≥ 2x/24h OR IV fluids
Diabetic ketoacidosis (DKA)	n/a	pH ≤ 7.35 AND BS > 250 mg/dL AND ketones positive AND serum HCO3 or CO2 ≤ 18 mEq/L

Conditions	Observation (6hrs ≥ and ≤ 48hrs)	Acute (> 48hrs)
GI bleeding	Hct ≥ 30%/Hb ≥ 10 g/dL AND plt ≥ 60,000/cu.mm	Hemodynamic instability OR Hct < 30%/Hb < 10 g/dL AND plt < 60,000/cu.mm OR plt > 1,000,000/cu.mm OR PT/PTT ≥ 1.5 ULN OR INR > 2 OR HR 100 - 120 OR MS changes OR GCS 9-14 OR orthostatic HTN OR presyncope OR syncope OR non vit K anticoagulant
Heart failure (HF)	Failed OP mgt OR volume overload OR dyspnea after ≥ 1 diuretic dose and O2 sat 89-91% OR MS changes OR GCS 9-14 OR HR 100-120 OR BUN > 1.5x ULN OR Cr > 1.5x ULN OR normal LV function	Impending intubation OR NIPPV OR mechanical ventilation OR ECMO/ECLS OR VAD OR vasoactive/inotrope OR arrhythmia OR dyspnea after ≥ 1 diuretic dose and O2sat < 89% OR dyspnea and stable angina OR CKD OR COPD OR DM OR pneumonia OR mental illness OR substance use disorder OR Na < 130 mEq/L
Hypertension (HTN)	SBP > 180 mmHg/DBP > 120 mmHg AND no evidence of end-organ damage AND history of HF/stroke/TIA/stable angina AND asymptomatic	SBP > 180 mmHg/DBP > 120 mmHg AND acute kidney injury OR HF OR aortic aneurysm OR aortic dissection OR hypertensive encephalopathy OR symptomatic
Hypertensive disorders of pregnancy	Gestation ≥ 20 weeks AND SBP 140 - 159 mmHg/DBP 90 - 109 mmHg AND FHR monitoring AND US assessment	SBP ≥ 160 mmHg/DBP ≥ 110 mmHg and anti HTN Rx OR HELLP OR preeclampsia
Migraine	Failed OP treatment OR incapacitating/intractable OR focal neurological finding AND analgesic/anti-migraine agent ≥ 2x/24h OR dihydroergotamine (DHE) and antiemetic	n/a
Nephrolithiasis (kidney stones)	Renal calculus w/o obstruction by imaging AND analgesic ≥ 2 doses AND IVF	Obstruction by imaging AND nephrostomy planned OR urinary catheterization necessary and Cr > 1.8 mg/dl
Hypoglycemia	BS < 70 mg/L AND 50% glucose bolus x2 AND monitoring 4x/24h OR caregiver unavailable and ≤ 12h since hypoglycemia corrected	BS < 70 mg/L AND obtundation OR coma OR seizure OR stupor OR GCS ≤ 8
Pneumonia	Confirmed by imaging AND O2 sat 89-91% AND one CURB-65 criterion (confusion or BUN > 19.6 mg/dL or RR ≥ 30/min or age ≥ 65) OR failed outpatient Rx	Impending intubation OR NIPPV OR mechanical ventilation OR ECMO/ECLS OR O2 ≥ 40% OR pneumonia by imaging AND O2 sat < 89% OR arterial Po2 < 56 mmHg OR Pco2 ≥ 45 mmHg and pH ≥ 7.31 OR empyema OR ≥ 2 lobes OR O2 sat 89-91% and Class III/IV COPD/HF/mental illness/substance use disorder OR two CURB-65 criteria (confusion or BUN > 19.6 mg/dL or RR ≥ 30/min or age ≥ 65) OR lung abscess OR susp/known sepsis OR necrotizing OR pregnant and T > 99.4°F
Pulmonary embolism (PE)	PE by imaging AND age ≤ 80 AND HR < 110 AND no cancer AND no chronic lung disease AND no HF AND not pregnant AND O2 sat ≥ 90% AND SBP > 100	Impending intubation OR thrombolysis planned OR O2 ≥ 40% AND O2 sat < 89% OR NIPPV OR mechanical ventilation OR PE by imaging AND abnormal biomarkers OR pregnant OR HIT OR age > 80 OR chronic lung disease OR HR > 110 OR HF/malignancy requiring Rx
Pyelonephritis/UTI	T > normal AND pain AND u/a positive AND failed OP anti-infective OR vomiting/severe pain after Rx	T > normal AND pain AND u/a positive OR MS changes OR GCS 9-14 OR immunocompromised OR age ≥ 75 OR ≥ 24 wks gestation OR urinary stent OR urinary tract obstruction
Stroke	Prior stroke with neurological deficit exacerbation	Acute ischemic OR hemorrhagic stroke
Syncope	During exertion OR palpitations prior OR aortic stenosis OR EF < 35% OR CAD OR MI w/in last 6 mos OR new systolic murmur	Long QT syndrome
TIA	Neurological deficit resolved/resolving AND carotid stenosis OR prior stroke OR suspected embolic source	Neurological deficit resolved/resolving AND aneurysm OR cardiac tumor OR cardiac mass OR crescendo TIA OR endocardial vegetation



Abdominal Pain

Stanford Health Care (Epic 2017), Rochester Regional Health (Epic 2017)

Champions: Dr. Ralabate, Dr. Camaro

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Pain and / or tenderness resolved or significantly improved
- vital signs acceptable
- No diagnosis requiring hospitalization

Admit to Acute

- Persistent vomiting
- Pain not resolving or worsening
- Unstable vital signs
- Clinical condition or positive testing that merits hospitalization
- Surgical abdomen

Atrial Fibrillation

References: Mercy Health - OH (fka Catholic Health Partners) (Epic 2017), Community Health Network (Epic 2017), Lancaster General Health (Epic August 2018), Lee Health (Epic 2018), Rochester Regional Health (Epic 2017)

Champions: Dr. A. Herle

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Patient converts and remains in NSR for over one hour
- Negative diagnostic testing
- Stable condition
- Discuss home medication therapy with cardiologist

Admit to Acute

- Failure to maintain control of rate under 100
- Positive diagnostic testing (as indicated for MI, PE, CHF, etc.)
- Unstable condition



Created Date: 12/26/2013 10:00:00 AM

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- MERCY HOSPITAL • Buffalo, NY
- MERCY HOSPITAL Orchard Park division • Orchard Park, NY

Allergies & Sensitivities:

- No Known Allergies
- (Indicates automatic order. Prescriber to draw line through orders to discontinue)

Abdominal Pain Observation Orders

Page 1 of 1

Authorization is hereby given to dispense the generic/therapeutic equivalent unless otherwise indicated by the prescriber

DATE:	TIME:	PRESCRIBER ORDERS
Check In: <input checked="" type="checkbox"/> No Procedure - Referred as Observation/Outpatient		
Location: _____ Diagnosis/Reason for Admission: <input type="checkbox"/>		
Admitting Physician: _____		
<input type="checkbox"/> Consults: _____ <input type="checkbox"/> Advance Directives: _____ <input checked="" type="checkbox"/> Notify MD if: BP less than 90mmHg or greater than 170mmHg, HR less than 50/min or greater than 120/min, RR greater than 24/min, SPO₂ less than 92%, Temp less than 95°F or greater than 101°F		
ACTIVITY: <input checked="" type="checkbox"/> OOB ad lib <input type="checkbox"/> Ambulate with assistance <input type="checkbox"/> Bathroom privileges		
DIET: <input checked="" type="checkbox"/> Regular <input type="checkbox"/> Other: _____		
NURSING ASSESSMENTS/INTERVENTIONS <input checked="" type="checkbox"/> Vital Signs every 4 hours x 24 hours, then every 8 hours <input checked="" type="checkbox"/> If patient unable to void in 8 hours, utilize bladder scanner to determine residual. If residual greater than 250ml call provider <input checked="" type="checkbox"/> Record I & O every 8 hours <input checked="" type="checkbox"/> Saline trap <input checked="" type="checkbox"/> O ₂ 2 L nasal cannula for chest pain/SOB/or pulse oximeter below 92%. May titrate oxygen to maintain O ₂ sat greater than 94% by 1 liter/min. Notify Provider if 4liter/min adjustment is needed.		
Labs: If not already done in ED. <input checked="" type="checkbox"/> CBC with diff <input checked="" type="checkbox"/> BMP <input checked="" type="checkbox"/> CMP <input checked="" type="checkbox"/> Serum Amylase <input checked="" type="checkbox"/> Serum Magnesium <input checked="" type="checkbox"/> Serum Lipase <input checked="" type="checkbox"/> CBC with diff am next day <input checked="" type="checkbox"/> CMP am next day		
Diagnostics: <input checked="" type="checkbox"/> CT Abdomen and Pelvis with contrast IV only <input type="checkbox"/> CT of Abdomen and Pelvis without contrast <input type="checkbox"/> Chest x-ray <input type="checkbox"/> Abdominal x-ray <input type="checkbox"/> Pelvic Sonogram		
MEDICATIONS: <input type="checkbox"/> Acetaminophen (Tylenol) 650 mg PO every 4 hours PRN for mild pain <input type="checkbox"/> Oxycodone Immediate-release 5 mg PO every 3 hours PRN Moderate pain <input type="checkbox"/> Oxycodone Immediate-release 10 mg PO every 3 hours PRN Moderate pain <input type="checkbox"/> Tramadol (Ultram) 50 mg PO every 6 hours PRN for Moderate pain <input type="checkbox"/> Hydromorphone (Dilaudid) 1 mg IV every 2 hours PRN Severe pain <input type="checkbox"/> Hydromorphone (Dilaudid) 2 mg IV every 2 hours PRN Severe pain <input checked="" type="checkbox"/> Famotidine 20 mg IV q 12 hours		
Venous Thromboembolism Precautions: (VTE) (Must select at least one) <input type="checkbox"/> Patient Low Risk for VTE - No Prophylaxis <input type="checkbox"/> Patient anticoagulation initiated <input type="checkbox"/> Sequential Compression Device <input type="checkbox"/> Enoxaparin (Lovenox) 40 mg subcutaneously daily <input type="checkbox"/> Heparin 5,000 units subcutaneously every 8 hours <input type="checkbox"/> Heparin 5,000 units subcutaneously every 12 hours <input type="checkbox"/> Other: _____ <input type="checkbox"/> VTE Pharmacological Prophylaxis Contraindicated: Please document reason: _____		

Prescriber Signature: _____



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- MERCY HOSPITAL Orchard Park division • Orchard Park, NY

Allergies & Sensitivities:

- No Known Allergies
- (Indicates automatic order. Prescriber to draw line through orders to discontinue)

Atrial Fibrillation Observation Order

Page 1 of 1

Authorization is hereby given to dispense the generic/therapeutic equivalent unless otherwise indicated by the prescriber

DATE:	TIME:	PRESCRIBER ORDERS
Check In: <input checked="" type="checkbox"/> No Procedure - Referred as Observation/Outpatient		
Location: _____ Diagnosis/Reason for Admission: <input type="checkbox"/> Atrial Fibrillation		
Admitting Physician: _____		
<input checked="" type="checkbox"/> Telemetry <input type="checkbox"/> Remote Telemetry (except at BMH) <input checked="" type="checkbox"/> Off Telemetry for test/procedure <input checked="" type="checkbox"/> Initial Telemetry - discontinue in 24 Hours		
<input type="checkbox"/> Consults: _____ <input type="checkbox"/> Advance Directives: _____ <input checked="" type="checkbox"/> Notify MD if: BP less than 90mmHg or greater than 170mmHg, HR less than 50/min or greater than 120/min, RR greater than 24/min, SPO₂ less than 92%, Temp less than 95°F or greater than 101°F CONSIDER DISCHARGE IF: Rate controlled (HR ≤ 110), NO CHF, No evidence of ischemia, asymptomatic CONSIDER ADMISSION/FURTHER DIAGNOSTIC WORK-UP IF: HR > 110, evidence of CHF, evidence of ischemia or SOB		
ACTIVITY: <input checked="" type="checkbox"/> Bathroom privileges <input type="checkbox"/> OOB ad lib <input type="checkbox"/> Ambulate with Assistance		
DIET: <input checked="" type="checkbox"/> Low Fat low cholesterol <input type="checkbox"/> Regular <input type="checkbox"/> Other: _____		
NURSING ASSESSMENTS/INTERVENTIONS <input checked="" type="checkbox"/> Vital Signs every 4 hours x 24 hours, then every 8 hours <input type="checkbox"/> I & O every 8 hours <input checked="" type="checkbox"/> O ₂ 2 L nasal cannula for chest pain/SOB/or pulse oximeter below 92% <input checked="" type="checkbox"/> May titrate oxygen to maintain o ₂ sat greater than 92% by 1 liter/min. Notify Provider if 4liter/min adjustment is needed <input checked="" type="checkbox"/> Saline trap		
Labs: If not already done in ED. <input checked="" type="checkbox"/> Fasting lipid profile <input checked="" type="checkbox"/> PT/PTT/INR <input checked="" type="checkbox"/> CBC with diff <input checked="" type="checkbox"/> CMP <input checked="" type="checkbox"/> BNP <input checked="" type="checkbox"/> Cardiac Markers: Troponin I, draw baseline stat, repeat in 90 minutes, repeat 3 hours <input checked="" type="checkbox"/> Magnesium <input checked="" type="checkbox"/> TSH		
Diagnostics: <input checked="" type="checkbox"/> Repeat EKG if change in rhythm <input checked="" type="checkbox"/> Chest x-ray		
MEDICATIONS: <input type="checkbox"/> Metoprolol Tartrate 5 mg IV x 1 dose <input type="checkbox"/> Cardiazem drip at _____ mg per hour <input type="checkbox"/> Lanoxin _____ mg _____ <input type="checkbox"/> Metoprolol Tartrate _____ mg PO BID <input type="checkbox"/> Cardiazem _____ mg PO every _____ hours <input type="checkbox"/> Aspirin _____ mg PO daily Note: Evaluate for anticoagulation and order if indicated <input type="checkbox"/>		
Venous Thromboembolism Precautions: (VTE) (Must select at least one) <input type="checkbox"/> Patient Low Risk for VTE - No Prophylaxis <input type="checkbox"/> Patient anticoagulation initiated <input type="checkbox"/> Sequential Compression Device <input type="checkbox"/> Enoxaparin (Lovenox) 40 mg subcutaneously daily <input type="checkbox"/> Heparin 5,000 units subcutaneously every 8 hours <input type="checkbox"/> Heparin 5,000 units subcutaneously every 12 hours <input type="checkbox"/> Other: _____ <input type="checkbox"/> VTE Pharmacological Prophylaxis Contraindicated: Please document reason: _____		

Prescriber Signature: _____



Asthma & COPD Exacerbation

References: Franciscan Missionaries of Our Lady Health System, Inc. (Epic 2018), Denmark Capital Region & Region Zealand (Epic 2014), Stanford Health Care (Epic 2017), Tower Health (Epic 2017)

CHS Champions: Dr. James Fitzpatrick, Dr. Norman Sfeir

Risk Scoring Tool

10	If FEV available: Severe FEV 30%-49%
20	If FEV available: Very Severe FEV less than 30%
20	If FEV not available: If severe limitation of activities by history
30	Age > 65
10	If on oral steroids
10	If on antibiotics from past week
Documented Co-morbidities:	
10	Neoplasm
10	CHF
10	Previous stroke
10	Renal failure
Physical Findings post Treatment in ED:	
20	Altered mental status
20	Respiratory rate \geq 30 /min
20	Use of accessory muscles
30	Abdominal paradox
10	Poor air entry (tight)
20	Temperature $<$ 96.8°F (36.0C) or \geq 101°F (38.3C)
10	Pulse rate \geq 120 /min
10	No improvement in peak flow
Documented Lab and Radiology:	
30	ABG-pCO ₂ $>$ 45 and ph $<$ 7.30
10	Leukocytosis
30	EKG Change (Ex: RV strain or New RBBB)
30	New Infiltrate on Chest X-Ray
20	PO ₂ $<$ 55mmHg or SPO ₂ $<$ 88% on 2L of oxygen

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

(Patient to be discharged on steroids, nebs, with follow-up and smoking cessation)

- Acceptable Vital Signs after ambulation (if able)
- Patient is at baseline with previous O₂ requirements (or Pulse Ox $>$ 95% on RA if baseline unknown)
- Resolution of bronchospasm or return to baseline status

Admit to Acute

- Progressive deterioration in clinical status or Vital Signs
- Failure to resolve exacerbation within 18 hours using scoring criteria
- Hypercarbia or respiratory acidosis

Cellulitis

References: Bayhealth Medical Center (Epic 2017), The Queen's Health Systems (Epic 2017), Lancaster General Health (Epic August 2018), Mount Sinai Health System (Epic 2017), Stanford Health Care (Epic 2017)

Champions: Dr. Thomas Raab, Dr. Thomas Cumbo, Dr. Kevin Shiley

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Orders

- Admit to observation
- Q4 Vital signs, I/O Q8 hrs
- Baseline Labs Protocol

Diltiazem 100 mg /100 ml IV infusion at ____ mg/hr

- DVT Prophylaxis Protocol
- If Lactate in ED greater than 2 mmol/L, repeat Lactic Acid within 3 hours
- Notify physician immediately for:
 - Spreading erythema $>$ 4 cm in 4 hours,
 - Progressive local pain,
 - Resp rate $>$ 25,
 - temperature greater than 101.3,
 - urinary output less than 30ml/hr,
 - systolic BP less than 90 or greater than 160,
 - diastolic BP less than 60 or greater than 110
- Mark edges of cellulitis with indelible marker to monitor progression
- Wound culture and sensitivity if suspected source apparent, prior to antibiotics
- If no penicillin allergy or non-severe allergy:
 - Cefazolin 2 grams intravenous, EVERY 8 HOURS
- For severe Beta lactam allergy:
 - clindamycin (CLEOCIN) IVPB 600, intravenous, EVERY 8 HOURS
- IF history of IV drug abuse or MRSA Add:
 - vancomycin (VANCOGIN) 1 gm IV x 1, then Pharmacy to dose
 - vancomycin (VANCOGIN) 1.5 gm IV x 1; if patient \geq 80kg, then Pharmacy to dose

Disposition Criteria

Discharge Home

- Improvement or no progression of cellulitis
- Improved and good clinical condition (ie. No fever, good vital signs) for 8 hrs.
- Able to perform cellulitis care at home and take oral medications

Admit to Acute

- Increase in skin involvement
- Clinical condition worse or not better (i.e. rising temp, poor vitals)
- Unable to take oral medications
- Unable to care for wound at home, home care unavailable

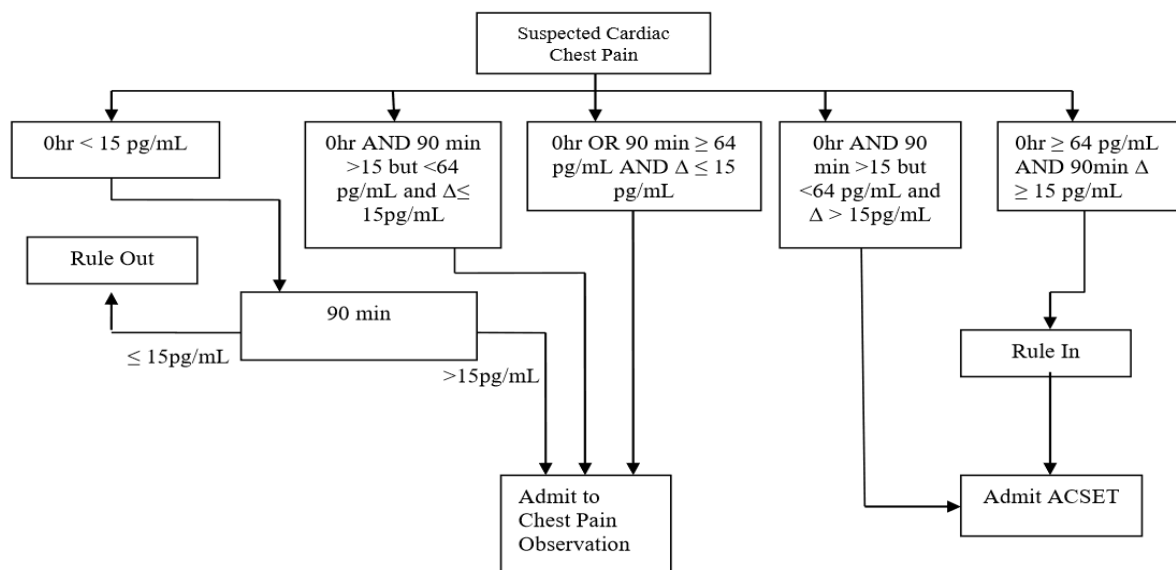
Chest Pain

References: The Queen's Health Systems (Epic 2017), Penn Medicine (Epic 2017), Lancaster General Health (Epic August 2018), Franciscan Missionaries of Our Lady Health System, Inc. (Epic 2018), Kettering Health Network (Epic 2017), Stanford Health Care (Epic 2017)

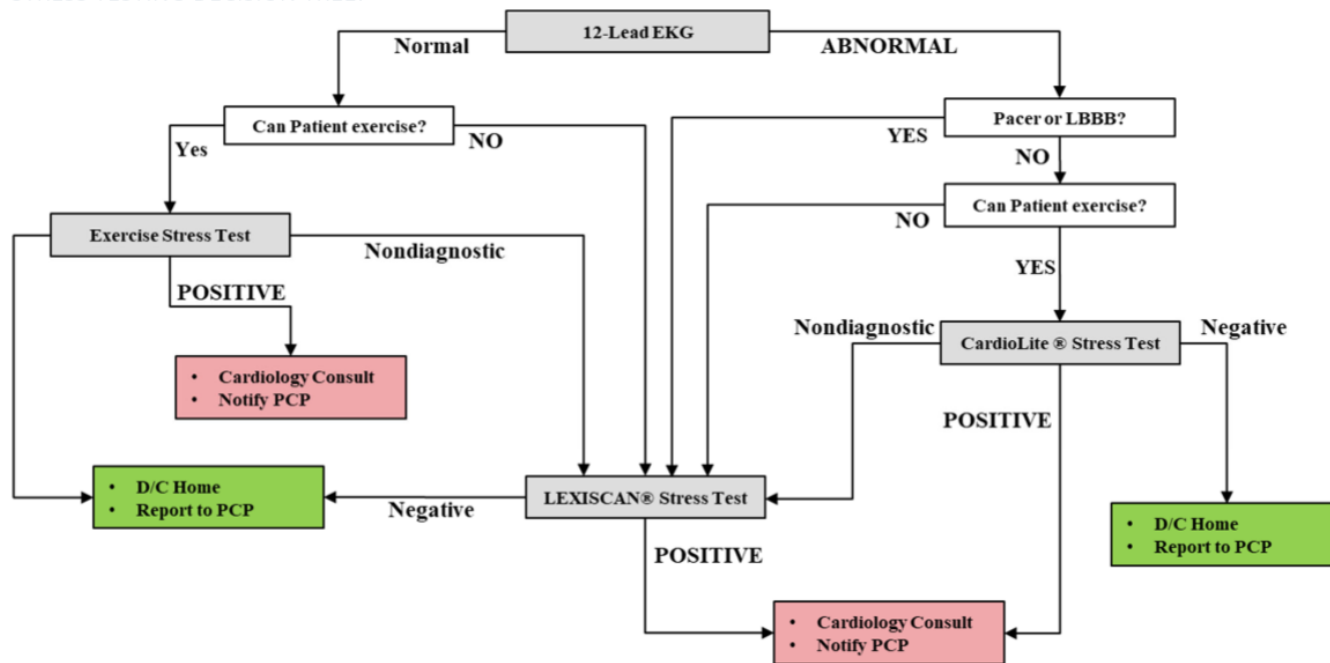
Champions: Dr. A. Herle

Inclusion and Exclusion Criteria

SUGGESTED INTERPRETATION and GUIDANCE: High-Sensitivity Cardiac Troponin Test (hs-cTnT)



STRESS TESTING DECISION TREE:



Disposition Criteria

Discharge Home

- High-Sensitivity cardiac troponin test (hs-cTnT) ruling out, as above
- Acceptable Vital, stable symptoms, no serious cause of symptoms identified
- Normal serial cardiac markers and EKGs
- Negative provocative test or cardiac imaging for ACS – no ischemic or reversible defects identified.
- CDU or personal physician discretion

Admit to Acute

- Unstable Vitals
- Positive cardiac markers or EKGs, as above
- Positive provocative test – ischemic or reversible perfusion defect
- Serious alternative diagnosis, e.g. PE, aortic dissection

Dehydration / Vomiting / Diarrhea

Eisenhower Health (Epic 2017), North Memorial Health (Epic August 2018), Mercy Health - OH (fka Catholic Health Partners) (Epic 2017), University of Mississippi Medical Center (Epic 2015)

Champions: Dr. Ralabate

[Observation and Acute Admission Criteria](#): Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Acceptable vital signs
- Resolution of symptoms, able to tolerate oral fluids
- Normal electrolytes (if done)

Admit to Acute

- Unstable vital signs
- Associated cause found requiring hospitalization
- Inability to tolerate oral fluids

Heart Failure Exacerbation

References: Mercy Health - OH (fka Catholic Health Partners), Lancaster General Health (Epic August 2018), University of California San Diego (Epic 2018) • SmartSet/Order Set

Champions: Dr. A. Herle

[Observation and Acute Admission Criteria](#): Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Subjective improvement – no chest pain, orthopnea, or exertional dyspnea above baseline
- Acceptable vital signs (O2 sat at baseline or >94%, RR <20HR<100, SBP >100 or baseline,).
- Negative serial ECGs and cardiac markers, good electrolytes, acceptable echo if done
- Evidence of adequate diuresis – 1L urine, decrease in weight, decrease in JVD
- CHF discharge checklist (ACEi, β -blocker, HF/ diet/ smoking education, close followup)

Admit to acute

- New ischemic EKG changes, arrhythmia, cardiac markers, or evidence of cardiac ischemia
- Lack of improvement after 2 doses of diuretic in observation
- Persistent hypoxia, rales, dyspnea
- Need for Inotropes
- Poor response to therapy - Failure to improve subjectively
- Poor home support
- Physician judgment



Pneumonia

References: Johns Hopkins Medicine (Epic 2017), Stanford Health Care (Epic 2017), UC Health (Epic 2017)

Champions: Dr. Cumbo, Dr. Shiley, Dr. Raab

CURB-65 Pneumonia Severity Scoring

Symptom	Points
Confusion	1
BUN > 19 mg/dL	1
Respiratory Rate \geq 30	1
SBP < 90 mmHg, DBP \leq 60 mmHg	1
Age \geq 65	1

- Patient not subjectively improved enough to go home
- Lack of clinical progress or clinical deterioration.
- Unable to safely discharge for outpatient management

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Subjective and clinical improvement during CDU stay
- Acceptable vital signs during observation period
- Patient able to tolerate oral medications and diet
- Physician discretion

Admit to Acute

- Patient not subjectively improved enough to go home
- Lack of clinical progress or clinical deterioration.
- Unable to safely discharge for outpatient management



Syncope

References: Stanford Health Care (Epic 2017), Franciscan Missionaries of Our Lady Health System, Inc. (Epic 2018), University of California San Diego (Epic 2018)
Champions: Dr. A. Herle

Observation and Acute Admission Criteria: Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

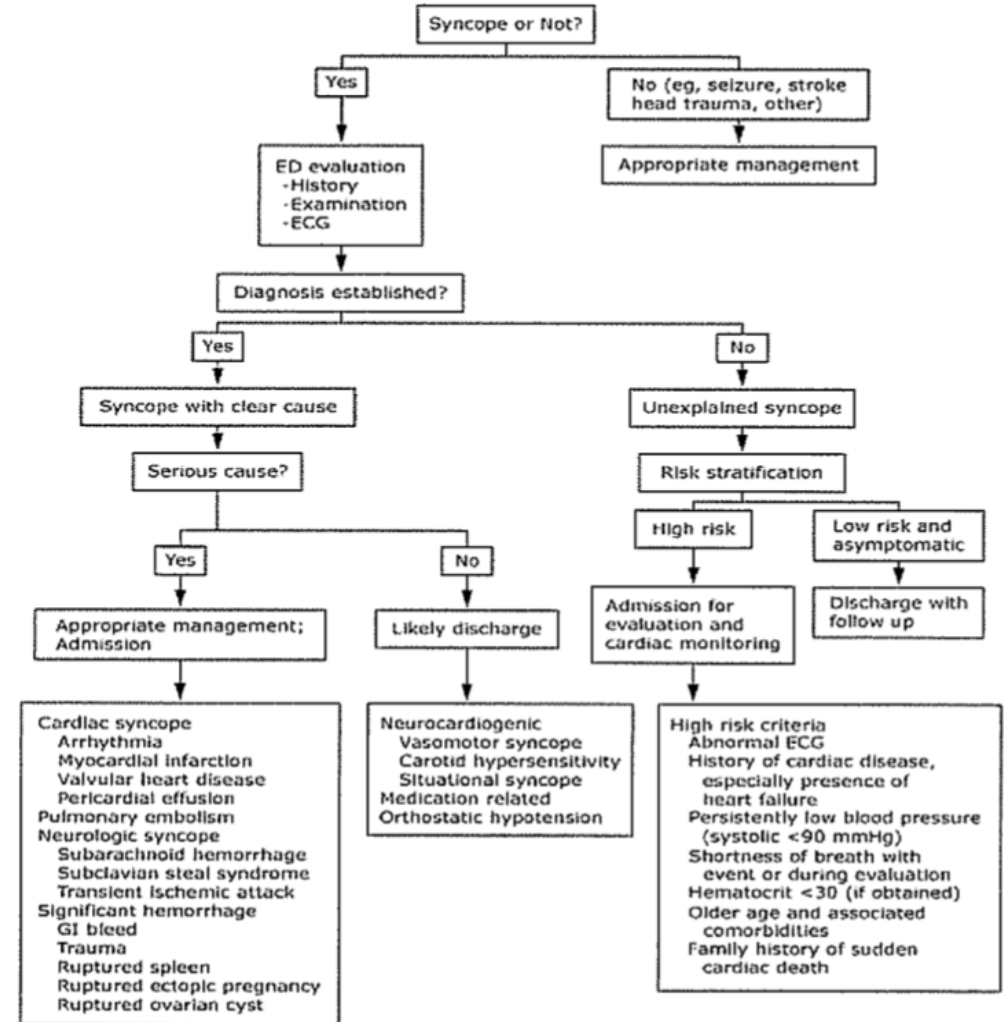
Discharge Home

- Benign CDU course, stable vital signs
- No arrhythmia documented on review of cardiac monitor history screens
- Acceptable home environment
- Follow up with possible, Holter event monitor PRN

Admit to Acute

- Deterioration of clinical course
- Significant testing abnormalities
- Unsafe home environment

Algorithm representing the emergency department approach to an adult patient with syncope



Transient Ischemic Attack

References: Oregon Health & Science University (Epic 2014), North Memorial Health (Epic August 2018), Mount Sinai Health System (Epic 2017), UC Health (Epic 2017)

[Observation and Acute Admission Criteria](#): Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- No recurrent deficits, negative workup
- Clinically stable for discharge home (on Asa – 81mg/day)
- Physician judgment

Admit to Acute Care

- Recurrent symptoms / deficit
- Evidence of treatable vascular disease - ie >50% stenosis of neck vessels
- Evidence of embolic source requiring treatment (ie heparin / coumadin) - ie mural thrombus, Paroxysmal atrial fibrillation
- Unable to complete workup or safely discharge patient within timeframe

Dizziness/Vertigo

References: Spectrum Health (Epic 2017), Allina Health System (Epic 2017), Johns Hopkins Medicine (Epic 2017), Edward-Elmhurst Healthcare (Epic 2018)

Champions: Dr. Dofitas, Dr. Babu

[Observation and Acute Admission Criteria](#): Reference InterQual 2019 Physician Reference Guide

Disposition Criteria

Discharge Home

- Symptom improvement, ability to ambulate
- No recurrent deficits, negative workup
- Clinically stable for discharge home (on Asa – 81mg)
- Physician judgment

Admit to Acute

- Recurrent symptoms / deficit
- Evidence of treatable vascular disease - ie >50% stenosis of neck vessels
- Evidence of new focal neurologic lesion
- Unable to safely discharge patient within 48 hours
 - daily scheduled



Local Physician Leaders

Buffalo Mercy – Dr. Thomas Raab

Sisters/St. Joseph's – Dr. Norman Sfeir

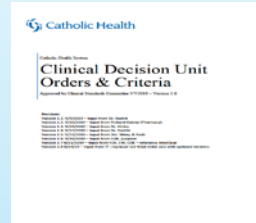
Mt. St. Mary's – Dr. Thomas Cumbo, Jr.

Kenmore Mercy – Dr. Eric Koch



Click on the attachment icon (paperclip) on the left for links to downloadable content:

- Observation Order Sets



- InterQual Criteria



- Attestation Page

By signing below, I acknowledge that I have completed the Catholic Health presentation entitled CDU Initiative in its entirety and that I understand the protocols and requirements contained therein.
Please return the signed form to your local medical staff office.

Name

Signature

Date