

NORTON

DEPARTMENT OF EMERGENCY MEDICINE

CLINICAL DECISION UNIT

OPERATIONS MANUAL

Norton Women's & Children's Hospital

2025

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EXECUTIVE SUMMARY

Observation services are provided at Norton's Clinical Decision Unit (CDU) for selected emergency department (ED) patients specifically to determine the need for inpatient admission, where an inpatient is a patient whose care is expected to cross two midnights.

Observation patients are typically ED patients requiring 6–24 hours of care, with an average length of stay of 16–18 hours. Of CDU patients, 70–90% should be discharged from observation status. These patients are of low severity of illness and limited intensity of service.

Observation services are provided in protocol-driven observation units. The CDU is staffed and managed by the Department of Emergency Medicine. There is a growing body of evidence finding that care of observation patients in a protocol-driven observation unit is associated with improved patient and provider satisfaction, less diagnostic uncertainty, shorter hospital length of stay, comparable or better clinical outcomes, improved hospital flow and resource utilization, and lower costs.

Guidelines for common conditions drive protocols and order sets and are based on best evidence, local practice, and expert consensus. Each guideline includes inclusion and exclusion criteria, potential interventions, and criteria for discharge or admission. Physicians are assigned to cover the CDU by shift and round at the beginning of each shift with APPs and nursing staff. Utilization and quality measures are followed monthly.

Contact Information

FACILITY	CDU PHONE	MEDICAL DIRECTOR
Norton Women's & Children's Hospital	[Insert CDU Phone]	[Insert Name, MD]

MISSION STATEMENT & OBJECTIVES

The mission of the Norton Clinical Decision Unit (CDU) is to provide evidence-based, compassionate, and comprehensive observation care to patients admitted through the Emergency Department. The unit will be efficient, safe, and a pleasant experience for patients and staff.

The CDU is an Emergency Department observation unit which provides physician-led observation services as defined by ACEP, AMA-CPT, and CMS. The CDU serves as an area for observation, delineation, and further testing for those ED patients requiring additional management to determine the need for inpatient admission. Active management is delivered through evidence-based patient care pathways utilizing clinical acumen of Emergency Medicine clinicians.

ORGANIZATIONAL STRUCTURE

The Norton CDU is administratively part of the Emergency Department and is under ED nursing and medical administration.

Physician Leadership: The Director of Observation Medicine, who reports to the Executive Director of Emergency Medicine, shall oversee all CDU Operations. The CDU is staffed with APPs under direct supervision of Emergency Medicine attendings. Physician coverage is provided 24 hours a day, 7 days a week.

Nursing Leadership: The Clinical Manager, who reports to the Director of Nursing for Emergency Services, shall be responsible for all nursing administrative CDU operations.

Other Disciplines: Other healthcare team members involved in patient care include consultant physicians, respiratory therapy, pharmacy, physical therapy, occupational therapy, dieticians, social workers, case managers, laboratory services, clergy, environmental services, registration, and other support services.

GENERAL GUIDELINES FOR CDU OPERATIONS

Physician Accountability

The ED physician, in conjunction with the CDU provider, is responsible for deciding which patients are appropriate for CDU admission. The physician assigned to cover the CDU is the accountable physician for all CDU patients. Admission to and discharge from the unit can only be made by the ED physician or designee. Other services may not bypass the ED physician and admit directly to the CDU. Consultants and private attendings may recommend discharge or admission; however, the final disposition order must come from the ED physician.

Associate Providers (NP or PA)

The CDU Associate Provider (AP) works under direct supervision of the ED attending physician assigned to cover the CDU. The AP will facilitate patient care as detailed in this manual.

Patient Selection Overview

The CDU manages patients for up to 18–24 hours, after which time a disposition should be made. The goal is to provide accelerated care while decreasing inappropriate ED discharges. Patients should first have been managed in the ED and found to need further management to determine their need for inpatient admission or discharge home. If a patient can be discharged within 4–6 hours, placement in the CDU is discouraged. Based on clinical judgment and best scientific evidence, patients should have at least a 70–85% probability of discharge within 18 hours if managed actively.

The 2-Midnight Rule definition of inpatient admission will be used. If a physician expects a patient's hospital care to span two midnights, then the patient may be admitted as an inpatient. Time in the ED and as an observation patient may count toward the first midnight.

GENERAL EXCLUSIONS FROM THE CDU

The following categories of patients are generally excluded from CDU admission:

- **INCOMPLETE CHART:** Missing or poorly documented ED history, physical, and medical decision-making.
- **HIGH SEVERITY OF ILLNESS:** Patients requiring more nursing care than can be offered (acutely unstable VS, unstable cardiac/pulmonary/neurological conditions). Must be stable in the initial ED treatment area for at least one hour before CDU transfer.
- **HIGH INTENSITY OF SERVICE:** Difficult intoxicated or suicidal patients, patients requiring frequent VS or treatments, patients on IV vasoactive drip infusions (nitroglycerin, labetalol, diltiazem, dopamine, dobutamine, or pulmonary hypertension agents).
- **INPATIENT ADMISSION CLEARLY NEEDED:** If the ED physician identifies the need for a traditional inpatient admission, the patient should not be admitted to the CDU.
- **AGE LESS THAN 18 YEARS OLD:** Younger patients will generally be transferred to an appropriate pediatric facility per standard guidelines.
- **OBSTETRIC PATIENTS OVER 20 WEEKS PREGNANT:** These patients should be managed on Labor & Delivery. Exceptions: patients already evaluated and cleared by the obstetric service for non-obstetrical conditions (e.g., asthma).
- **PATIENTS AT RISK OF SELF-HARM:** Suicidal, acutely psychotic, or significantly intoxicated patients. Patients determined to be at risk of self-harm should have their clothing held and be monitored in the ED.
- **ANTICIPATED CDU LOS LESS THAN 4–8 HOURS OR OVER 24 HOURS:** Patients expected to require care crossing two midnights are more likely candidates for inpatient admission.
- **SPECIAL EXCLUSIONS:** Patients with acute gait disturbance; transplant patients (except stable kidney transplants on chest pain protocol); hemodialysis patients on non-HD protocols.

PHYSICIAN CDU ROUNDING PRINCIPLES

Round at the beginning of each shift — CDU rounds are comparable to having a patient signed out at shift change. At the beginning of a shift, obtain sign-out from the departing provider, examine the patient, add or change orders, and make dispositions. The compelling question should always be: "Why is this patient still here?"

What to Do During Rounds

- Review the chart (ED H&P, transfer of care paperwork, labs, X-ray reports, consults, test results).
- Take report from the CDU nurse/AP; examine the patient with focus on the reason for CDU admission.
- Document and communicate findings and plan with the CDU team.
- Discharge/admit patients as needed.

PATIENT CARE FLOW

ED ATTENDING	1. Ensures suitability for the CDU; identifies specific reason for observation; approves decision to admit. 2. Places BED REQUEST; initiates appropriate CDU protocol order set; calls relevant consultants. 3. Ensures initial H&P is complete on the chart including reason for observation and brief CDU management plan. 4. Contact CDU APP or physician to communicate transfer-of-care synopsis.
ED NURSE	5. Arranges transfer of patient to CDU.
CDU NURSE	1. Receives transfer-of-care information; confirms patient suitability; records reason for observation and plan. 2. Orients patient to room; provides CDU Patient Information Sheet; obtains VS; provides care per protocol. 3. Completes rounding sheet prior to scheduled CDU rounds. 4. Requests disposition when protocol endpoint is reached, when patient needs to be admitted/discharged, or when LOS reaches 18 hours.
CDU APP	1. Facilitates shift change rounds with attending ED physician. 2. Reviews patient medications and CDU orders on new patient arrival and before initial rounds. 3. Expedites patient management and disposition in the CDU. 4. Performs relevant diagnostic tests; serial examinations as needed. 5. Keeps CDU physician informed of significant management issues. 6. Prepares discharge instructions, follow-up calls, and prescriptions. 7. Makes admission phone calls, orders, and bed assignments. 8. Dictates discharge summaries guided by physician input.
CDU DISPOSITION	1. AP or ED attending completes discharge paperwork, observation discharge summary, disposition. 2. Nurse makes patient disposition, removes from board, completes paperwork for discharge or admission.

CDU QUALITY ASSURANCE & UTILIZATION REVIEW

The CDU committee for each hospital will meet on a monthly basis to review CDU utilization, quality reports, clinical and administrative issues. Meetings will ideally be attended by the CDU site director, CDU and ED nursing leadership, CDU Associate Providers, pharmacy, and an administrative representative.

Utilization Review Monitors — Reviewed Monthly

- Case mix for CDU: rank-order list by diagnosis, reporting census, percent of all CDU patients, inpatient admit rate, ED LOS, and CDU LOS.
- Unit occupancy: monthly patients/bed/day (goal 0.9), and by hour of day when available.
- Arrival and departure volumes by hour of day.

Quality Assurance Monitors — Reviewed Monthly

- Concerns voiced by staff, patients, or consultants.
- Chest Pain / HEART Score: score distribution, admit rate by score, and percent with score <3 (goal <11%).
- Death, cardio-respiratory arrest in the unit, ICU admits.
- Return to ED or hospital within 14 days of CDU discharge.
- Protocol compliance and documentation compliance.
- Length of stay over 36 hours.

CONDITION-SPECIFIC PROTOCOLS

The following protocols provide condition-specific guidelines for CDU admission, management, and disposition. These guidelines are based on national evidence, and adapted from best practices at leading academic medical centers. They are intended as guidance — prudent clinical judgment may allow care outside these guidelines in appropriate circumstances.

ABDOMINAL PAIN

INCLUSION CRITERIA

- Stable vital signs
- Ancillary symptoms: anorexia, nausea/vomiting, fever, elevated WBC
- Negative pregnancy test
- Non-surgical abdomen
- High likelihood (~70%) of discharge within 15 hours

EXCLUSION CRITERIA

- Unstable VS (HR >110, SBP <100, RR >22)
- Immunocompromised patient (transplant, chemotherapy, T-cells <200)
- Pregnant patient
- Confirmed bowel obstruction (even partial) or ileus
- Cholecystitis (sonographic Murphy sign, wall thickening >4mm, dilated CBD)
- Surgical abdomen: free air, rigidity, rebound tenderness
- History of frequent ED visits / suspected narcotic abuse

POTENTIAL CDU INTERVENTIONS

- Analgesics, NPO, IV hydration, repeat CBC
- Imaging as indicated (CT abdomen/pelvis, ultrasound, MRI)
- Serial vital signs; serial abdominal exams Q2–4 hours while awake
- Surgical or GI consultation as needed

DISCHARGE PARAMETERS

- Pain and/or tenderness resolved or significantly improved
- VS acceptable; no diagnosis requiring hospitalization

ADMISSION PARAMETERS

- Persistent vomiting; pain not resolving or worsening
- Unstable VS; clinical condition or positive testing requiring hospitalization
- Surgical abdomen or consultant preference

ABDOMINAL PAIN / COLITIS — ORDER SET

ABDOMINAL PAIN / COLITIS OBSERVATION ORDER SET	
Diagnosis	Abdominal Pain/Colitis
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO Immediately ☐ NPO after Midnight
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers 1000 mL @ 75 mL/hr
Consults	☐ General Surgery
Medications	
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Severe Pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe Pain 7–10)
Antibiotics	☐ Antibiotics per Hospital Guidelines
IV Fluid Orders	☐ Normal Saline 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Lactated Ringers 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Normal Saline BOLUS 1000 mL — Bag volume 1000 mL
Labs	
Labs	☐ CBC w/ Auto Diff ☐ BMP ☐ BMP q6h ☐ PT/PTT/INR ☐ Type and Screen
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring

ACUTE KIDNEY INJURY

INCLUSION CRITERIA

- Acute kidney injury on laboratory testing: creatinine rise ≥ 0.3 mg/dL within 48 hours, or $\geq 1.5\times$ baseline
- Suspected pre-renal / volume-responsive cause (dehydration, GI losses, poor PO intake, diuretic effect)
- Stable vital signs; no hemodynamic instability
- Potassium not requiring emergent treatment; no hyperkalemic ECG changes
- Anticipated correction of renal function within 24 hours
- Nephrology notified as indicated

EXCLUSION CRITERIA

- Acute kidney injury not correctable within 18 hours
- End-stage renal failure or dialysis patient
- Anuria, or oliguria unresponsive to initial fluid challenge
- Hyperkalemia with ECG changes, or potassium requiring emergent treatment or dialysis
- Severe metabolic acidosis; volume overload with pulmonary edema
- Suspected obstructive uropathy requiring urgent decompression
- Suspected intrinsic renal disease requiring inpatient workup (e.g., rapidly progressive glomerulonephritis, rhabdomyolysis with markedly elevated CK)
- Sepsis or concomitant acute severe medical condition
- Unstable VS or hemodynamic instability
-

POTENTIAL CDU INTERVENTIONS

- IV hydration (0.9% NS or Lactated Ringers) with serial reassessment of volume status
- Serial BMP at 8 hours; monitor calcium, magnesium, and phosphorus
- Strict intake and output; daily weight
- Hold nephrotoxic agents (NSAIDs, ACE inhibitors/ARBs, IV contrast); renally dose all medications
- Renal ultrasound or CT abd/pelv Wo if obstruction suspected
- Cardiac monitoring
- Nephrology consultation as indicated

DISCHARGE PARAMETERS

- Creatinine improving or returned toward baseline
- Adequate urine output; tolerating PO intake
- Acceptable VS; electrolytes within acceptable range
- Follow-up arranged for repeat renal function testing

ADMISSION PARAMETERS

- No improvement in renal function after adequate fluid resuscitation
- Worsening creatinine, or persistent oliguria/anuria
- Development of hyperkalemia, metabolic acidosis, or volume overload

- New indication for dialysis, or Nephrology recommends admission

ACUTE KIDNEY INJURY — ORDER SET

ACUTE KIDNEY INJURY OBSERVATION ORDER SET

Diagnosis	Acute Kidney Injury
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clears ☐ Regular Diet ☐ Renal Diet: Low Potassium
IVF	☐ 0.9% Normal Saline @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Medications	
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV q4h PRN nausea
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Labs	
Labs	☐ BMP, STAT ☐ POC BMP, STAT ☐ BMP, timed 8 hours ☐ Calcium ☐ Magnesium ☐ Phosphorus
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Strict Intake and Output ☐ Daily Weight

Consults	
Consults	☐ Provider to Provider Consult: Nephrology

ALLERGIC REACTION

INCLUSION CRITERIA

- Stable vitals / afebrile; established IV access
- Response to initial ED treatment
- Erythroderma, morbilliform rash, urticaria, or angioedema present
- If airway angioedema present, need for surgical airway judged HIGHLY UNLIKELY by attending
- Minimum 2 hours of stability after treatment

EXCLUSION CRITERIA

- No response to initial ED interventions
- Concern for airway compromise; stridor or hoarseness
- Hypotension (MAP <65 or SBP <100), tachycardia >120 bpm
- Room-air saturation <92%
- Use of IV anaphylaxis-dose epinephrine or IV vasopressors
- Suspicion for acute coronary syndrome

POTENTIAL CDU INTERVENTIONS

- IV fluids as needed; antihistamines, corticosteroids
- Frequent reassessment and documentation of airway status
- Inhaler or nebulizer treatments as indicated
- Cardiac monitoring (if indicated); repeat IM/SQ epinephrine if needed
- Pulse oximetry

DISCHARGE PARAMETERS

- Resolution or improvement in clinical condition; stable VS
- No progression of symptoms for 4 hours; able to perform baseline ADLs

ADMISSION PARAMETERS

- Delayed worsening of allergic symptoms; persistent wheezing or stridor
- Inadequate response to therapy; inability to take oral medications
- Abnormal vital signs: SBP <100 or RR >24 or hypoxia

ALLERGIC REACTION — ORDER SET

ALLERGIC REACTION OBSERVATION ORDER SET

Diagnosis	Allergic Reaction
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest

Diet	☐ NPO ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Medications	
Steroids	☐ Methylprednisolone sodium succinate (Solumedrol) 125 mg IV Push x 1 dose ☐ Prednisone 40 mg PO daily x 1 dose
Antihistamines	☐ Diphenhydramine (Benadryl) 25 mg IV Push q6h x 2 doses ☐ Famotidine (Pepcid) 20 mg IV q12h x 2 doses
Bronchodilators	☐ Albuterol 2.5 mg/3 mL nebulized q4h PRN wheeze/SOB x 3 doses — If >3 doses needed, admit patient ☐ Albuterol 15 mg/3 mL nebulized q4h PRN x 2 doses — If >2 doses needed, admit patient
Smokers	☐ Nicotine (Nicoderm) patch: 7 mg / 14 mg / 21 mg topically daily
Labs	
Labs	☐ CBC with Auto Diff, Stat ☐ BMP, Stat
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Peak Flow at admission and after each nebulizer treatment ☐ Oxygen Nasal Cannula ____ L/min PRN (O2 sat <92%) ☐ Oxygen Saturation While Ambulating

APPENDICITIS / CHOLECYSTITIS SURGICAL SHORT STAY

INCLUSION CRITERIA

- Stable vital signs
- Established IV access
- No significant laboratory abnormality (e.g., anion gap <20, severe renal failure)
- Confirmed appendicitis on CT and General Surgery consulted
- Confirmed cholecystitis on ultrasound or CT and General Surgery consulted
- Suspected discharge after OR or within 24 hours per discussion with Surgery

EXCLUSION CRITERIA

- Evidence of hemodynamic compromise
- Pregnancy
- Signs of sepsis / septic shock
- Co-morbid conditions requiring admission or critical care consultation

POTENTIAL CDU INTERVENTIONS

- Monitoring for potential hemodynamic issues
- IV fluids
- Electrolyte replacement as indicated
- Repeat labs as indicated
- Antiemetics as indicated
- Antibiotics as indicated

DISCHARGE PARAMETERS

- OR complete and patient cleared for discharge by Surgery

ADMISSION PARAMETERS

- Worsening of clinical condition; patient becomes hypotensive
- Additional complications found requiring hospitalization
- Development of any exclusion criteria
- Progression of clinical disease
- Admission deemed necessary by consulting service
- Unable to tolerate PO after surgery and prior to discharge

APPENDICITIS / CHOLECYSTITIS SURGICAL SHORT STAY — ORDER SET**APPENDICITIS / CHOLECYSTITIS SURGICAL SHORT STAY OBSERVATION ORDER SET**

Diagnosis	Appendicitis/Cholecystitis Surgical Short Stay
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO Immediately ☐ NPO after Midnight
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers 1000 mL @ 75 mL/hr
Consults	☐ General Surgery
Medications	
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Severe Pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe Pain 7–10)
Antibiotics	☐ Antibiotics per Hospital Guidelines

IV Fluid Orders	☐ Normal Saline 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Lactated Ringers 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Normal Saline BOLUS 1000 mL — Bag volume 1000 mL
Labs	
Labs	☐ CBC w/ Auto Diff ☐ BMP ☐ BMP q6h ☐ PT/PTT/INR ☐ Type and Screen
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring

ASTHMA EXACERBATION

INCLUSION CRITERIA

- Stable vitals / afebrile; established IV access; response to ED treatment
- Intermediate response — improving but still wheezing
- PEFr 40–70% predicted (or personal best) after beta-2 agonists
- Duoneb or Beta-2 agonist + steroids given in ED
- CXR with no acute findings (pneumonia, pneumothorax, CHF)
- SaO₂ >95% on ≤2 L/min NC or >95% room air with RR <30

EXCLUSION CRITERIA

- Unstable VS or clinical condition; severe dyspnea, confusion, drowsiness
- Persistent use of accessory muscles, RR >40, or excessive effort
- If ABG done: elevated pCO₂ (>45–50) plus decreased pH (<7.29)
- O₂ Sat <92% on room air (unless documented chronic hypoxia)
- PEFr <40% predicted or personal best; BiPAP or CPAP required
- Suspicion of ACS, new-onset CHF, or pneumonia on CXR

POTENTIAL CDU INTERVENTIONS

- Serial treatments with nebulized beta-2 agonist Q2–4 hr and ipratropium Q6 hr
- IV Magnesium Sulfate as needed; systemic steroids (PO or IV)
- Pulse oximetry; ABG and oxygen with cardiac monitoring as needed; BNP if needed
- Frequent reassessment; peak flow at admission and after each nebulizer treatment
- Initiate corticosteroid controller inhaler before discharge

DISCHARGE PARAMETERS

- Acceptable VS: HR <100, RR <20 after ambulation (if able)

- Pulse Ox >95% on RA (or return to baseline); PEFR >70% predicted or personal best
- Resolution of bronchospasm or return to baseline status

ADMISSION PARAMETERS

- Progressive deterioration; failure to resolve bronchospasm within 15 hours
- Persistent PEFR <70% of predicted; hypoxic despite therapy if not chronic

ASTHMA EXACERBATION — ORDER SET**ASTHMA EXACERBATION OBSERVATION ORDER SET**

Diagnosis	Asthma Exacerbation
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Medications	
Steroids	☐ Methylprednisolone sodium succinate (Solumedrol) 125 mg IV Push x 1 dose ☐ Prednisone 40 mg PO daily x 1 dose
Bronchodilators	☐ Albuterol 2.5 mg/3 mL nebulized q4h PRN wheeze/SOB x 3 doses — If >3 doses needed, admit patient ☐ Albuterol 15 mg/3 mL nebulized q4h PRN x 2 doses — If >2 doses needed, admit patient ☐ Duoneb 0.5 mg–2.5 mg / 3 mL nebulized q6h x 2 doses
Analgesics	☐ Acetaminophen 650 mg PO q6h or q4h PRN pain
Smokers	☐ Nicotine (Nicoderm) patch: 7 mg / 14 mg / 21 mg topically daily
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Peak Flow at admission and after each nebulizer treatment ☐ Oxygen Nasal Cannula _____ L/min PRN (O2 sat <92%) ☐ Oxygen Saturation While Ambulating

ATRIAL FIBRILLATION / DYSRHYTHMIA

INCLUSION CRITERIA

- New onset Afib with adequate rate control
Stable BP with SBP >120 and HR <110
- No chest pain when rate controlled; normal CXR; no evidence of acute comorbidities
- Stable dysrhythmia (SVT post-conversion, symptomatic PVCs, sinus bradycardia without hemodynamic compromise)
- Successful ED cardioversion or rate control; Cardiology consulted

EXCLUSION CRITERIA

- HR >110 despite ED medications; IV vasoactive drips required (e.g., diltiazem)
- Hemodynamically unstable; ongoing ischemic chest pain after rate control
- AF onset >48 hours or unknown; chronic atrial fibrillation
- Acute comorbidities: evidence of acute MI, CHF, PE, sepsis, CVA/embolic event
- Troponin elevation; stable/unstable ventricular tachycardia or fibrillation
- High-grade AV block (II or III) or new wide-complex dysrhythmia
- Cardiologist or ED physician chooses inpatient admission

POTENTIAL CDU INTERVENTIONS

- Cardiac monitoring, pulse oximetry; VS Q2 hr x 6 hr, then Q4 hr
- Anticoagulate if not contraindicated — PO aspirin (325 mg) or SQ heparin (LMWH or UFH)
- Rate control options: oral Cardizem, verapamil, or beta blockers
- Serial EKGs at 3 and 6 hours from initial ED EKG
- TSH, 2D echocardiogram if indicated; educate patient on cardioversion options
- Electrical cardioversion to occur outside of the CDU; initiate anticoagulation if indicated

DISCHARGE PARAMETERS

- Patient converts and remains in NSR for >1 hour; negative diagnostic testing
- Hemodynamically stable for 4–6 hours; controlled rate <100 bpm; arranged follow-up

ADMISSION PARAMETERS

- Failure to maintain rate control under 100; positive diagnostic testing
- Recurrence of dysrhythmia with symptoms; new heart failure signs

ATRIAL FIBRILLATION / DYSRHYTHMIA — ORDER SET

DYSRHYTHMIA OBSERVATION ORDER SET

Diagnosis	Dysrhythmia
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest

Diet	☐ NPO ☐ Clears ☐ Regular Diet ☐ Cardiac Diet
Medications	
Rate Control	☐ Metoprolol 5 mg IV q6h PRN HR >110 ☐ Diltiazem 10 mg IV PRN HR >110 ☐ Metoprolol 25–100 mg PO BID ☐ Diltiazem 60–120 mg PO TID ☐ Extended-release rate control per Cardiology recommendations
Analgesic	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3)
IV Fluid Orders	☐ Normal Saline 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Lactated Ringers 1000 mL — Bag volume 1000 mL, Rate 75 mL/hr, IntraVENous, STAT ☐ Normal Saline BOLUS 1000 mL — Bag volume 1000 mL
Labs	
Labs	☐ CBC ☐ BMP ☐ Magnesium ☐ Phosphorus ☐ TSH ☐ BNP ☐ PT/PTT/INR ☐ Repeat EKG q6h or PRN symptoms
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Notify MD for HR >120 or SBP <90
Consults	
Consults	☐ Provider to Provider Consult: Cardiology

BACK PAIN / CAUDA EQUINA RULE-OUT

INCLUSION CRITERIA — BACK PAIN

- Inability to adequately control pain in ED with analgesics
- Normal neurological function; no risk of metastatic disease or epidural abscess
- Back pain without severe trauma; normal imaging (if obtained)
- Inability to ambulate because of pain

EXCLUSION CRITERIA — BACK PAIN

- Age over 65 years old; frequent ED visits / suspected narcotic-seeking behavior

High level of clinical suspicion for cauda equina such as urinary retention >200mL or bowel or bladder incontinence, where placement in Obs may delay MRI and surgical consultation
Abnormal X-rays (burst fracture, spine canal involvement)
High suspicion of cord compression, metastatic disease, epidural bleed/abscess, discitis; fever
INCLUSION CRITERIA — CAUDA EQUINA RULE-OUT
Back pain with red-flag symptoms (urinary retention/incontinence, saddle anesthesia)
Stable vitals; able to undergo MRI within observation time
EXCLUSION CRITERIA — CAUDA EQUINA RULE-OUT
Immediate operative intervention warranted; unstable vitals or sepsis
Known spinal hardware or metal contraindicating MRI
Poor rectal tone or focal neurologic deficit; unable to undergo MRI within 24 hours
POTENTIAL CDU INTERVENTIONS
Analgesics (narcotic/NSAIDs); serial exams; physical therapy assessment
MRI Lumbar Spine Steroids if indicated
Consultation as needed to Neurosurgery, Ortho/Spine, PT/OT
Bladder scan Q6 hr for cauda equina; neuro checks Q2 hr
DISCHARGE PARAMETERS
Ability to ambulate and care for self at home with oral analgesics; pain at a tolerable level
MRI findings not needing emergent surgical intervention Neurosurgery or Spine has cleared patient for discharge if consulted
ADMISSION PARAMETERS
Inability to tolerate pain on oral medications; worsening neurological exam
Positive MRI findings; urinary retention not resolving; neurosurgical recommendation for admission

BACK PAIN / CAUDA EQUINA RULE-OUT — ORDER SET

Diagnosis	Cauda Equina Rule Out
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ NPO until MRI completed ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr IV STAT ☐ Lactated Ringers 1000 mL @ 75 mL/hr IV STAT

	☐ 0.9NS 1000 mL BOLUS
Medications	
Antiemetic	☐ Ondansetron (Zofran) 4mg IV Push q6h PRN nausea/vomiting
Steroid	☐ Dexamethasone 10 mg IV x 1 dose
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Moderate Pain 4–6) Hydromorphone (Dilaudid) 0.5 mg IV q4h PRN (Moderate Pain 4–6) Morphine 4 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Labs	
Labs	☐ CBC w/ Diff ☐ CMP ☐ PT/PTT/INR ☐ Type and Screen ☐ Urinalysis
Imaging	
Imaging	☐ MRI Lumbar Spine w/ and w/o contrast STAT
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Neuro checks Q2hr ☐ Bladder scan Q6hr
Consults	
Consults	☐ Provider to Provider Consult: Neurosurgery

BLOOD TRANSFUSION

INCLUSION CRITERIA

- Hemoglobin <7 with known/suspected cause, or symptomatic anemia requiring transfusion
- Stable vitals / afebrile; established IV access; no evidence of active bleeding
- Deficiency correctable by transfusion; recent labs verifying need

EXCLUSION CRITERIA

- Unstable VS or active bleeding
- End-stage renal failure or dialysis patients; pregnant >20 weeks
- Hemoglobin <5; coagulopathy; co-morbid conditions requiring critical care
- Requirement of >3 units of blood for transfusion

POTENTIAL CDU INTERVENTIONS

- IV access; pre-medicate and IV hydration as needed
- Type and Cross match if not previously done
- Repeat CBC at least 1–2 hours following transfusion
- Vital signs per blood bank policy: baseline, at 15 min, at 1 hr, and post-transfusion
- Hematology or other specialty service consult as appropriate

DISCHARGE PARAMETERS

- Stable vital signs; symptoms improved; satisfactory increase in hemoglobin following transfusion
- No fever for 1 hour after 1 unit PRBC or 2 hours after 2 units PRBC
- No evidence of fluid overload, CHF, or transfusion reaction

ADMISSION PARAMETERS

- Transfusion reaction; unstable VS; fluid overload or CHF
- Inadequate response to therapy; requirement of >3 units of blood

BLOOD TRANSFUSION — ORDER SET

BLOOD TRANSFUSION OBSERVATION ORDER SET

Diagnosis	Blood Transfusion
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr

Consults	☐ Gastroenterology ☐ Hematology/Oncology
Medications	
Pre-Medications	☐ Methylprednisolone sodium succinate (Solumedrol) 125 mg IV x 1 dose ☐ Diphenhydramine (Benadryl) 25 mg PO x 1 dose ☐ Acetaminophen 650 mg PO q6h or q4h PRN pain
Post-Transfusion	☐ Furosemide 40 mg IV x 1 dose — After units of blood product (if fluid overload concern)
Labs	
Labs	☐ Type and Crossmatch ☐ Red Blood Cells Product Order — 2 units ☐ PT/PTT/INR ☐ CBC w/ Auto Diff, Stat ☐ CMP, Stat ☐ CBC (no Diff) — Post-Transfusion ☐ BMP — Post-Transfusion
Imaging	
Imaging	☐ Chest X-Ray, 1 view portable
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr (and per blood bank policy: baseline, 15 min after start, 1 hr after start, post-transfusion) ☐ Cardiac Monitoring

CELLULITIS

INCLUSION CRITERIA

- Serial exams needed to exclude rapidly progressive cellulitis
- Cellulitis requiring >1 dose antibiotics in the ED
-
- Cellulitis with a drained abscess requiring brief observation and wound care

EXCLUSION CRITERIA

- Septic/toxic patients with severe sepsis: Temp >104°F, SBP <100, RR >22, HR >100, lactate ≥2 mmol/L
- Immunocompromised: neutropenia, HIV, transplant, ESRD/hemodialysis, immunosuppressants, post-splenectomy
- High-risk infections: diabetic foot, prosthesis proximity, orbital/upper lip/nose/neck, >9% TBSA, osteomyelitis suspicion
- Poorly controlled diabetes; patient unable to care for self at home

POTENTIAL CDU INTERVENTIONS

- Mark edges of cellulitis with indelible marker to monitor progression

• Antibiotics per Hospital Guidelines
• Pertinent labs: CBC, glucose, blood/wound cultures PRN; elevate extremity
DISCHARGE PARAMETERS
• Improvement or no progression of cellulitis; good clinical condition (no fever, stable VS) for 8 hrs
• Able to perform wound care at home and take oral medications
ADMISSION PARAMETERS
• Increase in skin involvement; clinical condition worse (rising temp, poor vitals)
• Unable to take oral medications or care for wound at home

CELLULITIS — ORDER SET

CELLULITIS OBSERVATION ORDER SET

Diagnosis	Cellulitis
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Infectious Disease / SUDS as appropriate
Medications — Antibiotics	
Antibiotics	☐ Antibiotics per Hospital Guidelines
Analgesics (select one)	
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Moderate Pain 4–6) Hydromorphone (Dilaudid) 0.5 mg IV q4h PRN (Moderate Pain 4–6) ☐ Morphine 4 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Elevate extremity ☐ Heat Therapy as appropriate

CHEST PAIN (LOW-MODERATE RISK ACS)**INCLUSION CRITERIA**

- ACS risk is low based on chest pain criteria; HEART score 1–6
- Chest discomfort potentially due to cardiac ischemia
- No acute ischemic ECG changes; negative initial troponin
- Acceptable vital signs; other life-threatening causes of chest pain ruled out

EXCLUSION CRITERIA

- High Risk HEART Score ≥ 7 , pain worse than usual angina, recent revascularization, SBP < 110
-
- New ECG changes consistent with ischemia; positive troponin not known to be chronic
- Stress test or cardiac imaging needed but NOT available in CDU
- Recent normal cardiac catheterization (no coronary stenosis)
- Delta troponin increase > 6

POTENTIAL CDU INTERVENTIONS

- Saline lock, cardiac monitor, daily aspirin, nitrates PRN; NPO 6 hours before stress test; no caffeine if stress test planned
- Serial HS-Troponin I and EKGs at 1 and 3 hours from first ED blood draw
- Repeat EKG based on symptoms or monitor alert — show to CDU/ED physician STAT
- Stress testing and cardiac imaging after negative serial troponins (exercise treadmill, Cardiac CTA, nuclear stress test, or echocardiography per protocol)
- Cardiology consultation; 2D echocardiography as indicated

DISCHARGE PARAMETERS

- Acceptable VS; stable symptoms; no serious cause of symptoms identified
- Normal serial cardiac markers and EKGs; negative cardiac evaluation for ACS

ADMISSION PARAMETERS

- Unstable VS; positive cardiac markers or EKGs
- Positive provocative test (ischemic/reversible perfusion defect)
- CDU or personal physician discretion; serious alternative diagnosis (PE, aortic dissection)

CHEST PAIN (LOW-MODERATE RISK ACS) — ORDER SET**CHEST PAIN (LOW-MODERATE RISK) OBSERVATION ORDER SET**

Diagnosis	Low-Moderate Risk Chest Pain
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest

Diet	☐ NPO ☐ Cardiac Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Cardiology Service
Medications	
Medications	☐ Enteric coated aspirin 325 mg PO daily x 1 dose ☐ Metoprolol tartrate 25 mg PO q12h — Do NOT give if HR <60 bpm or SBP <100 mmHg ☐ Nitroglycerin 0.4 mg Topical Patch q8h
Labs	
Labs	☐ HS-Troponin & EKG q1h x 2, in addition to ED HS-Troponin results ☐ Blood glucose ACHS (if glucose >120 or diabetic) ☐ PT/PTT/INR ☐ Type and Screen ☐ Lipid Panel
Imaging	
Imaging	☐ 2D Echocardiography Complete ☐ CTA Coronary Study W 3D ☐ EKG Stress Test Exercise ☐ Stress Echocardiogram (per Cardiology)
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ NPO after Midnight (if stress test planned)

COPD EXACERBATION

INCLUSION CRITERIA

- Good response to initial therapy (beta-agonists, ipratropium, steroids)
- No acute process on CXR (required); acceptable VS (PO2 >90 or baseline, HR <100–120, RR <24, SBP >100)
- Alert and oriented; no indication of impending respiratory fatigue
- SaO2 >94% on ≤2 L/min NC and RR <20, or >94% room air and RR <24

EXCLUSION CRITERIA

- Concurrent acute comorbidities: pneumonia, CHF, cardiac ischemia
- Unstable VS or clinical condition; acute confusion/lethargy or evidence of CO2 narcosis
- Poor response to initial therapy; BiPAP or CPAP required
- O2 Sat <88% on 2 L O2 after initial treatment; persistent use of accessory muscles RR >28

POTENTIAL CDU INTERVENTIONS

- Serial treatments: beta-agonists Q2–4 hr, ipratropium Q6 hr, steroids
- Hydration; antibiotics if indicated (based on contemporary guidelines)
Magnesium IV if indicated
- Pulse oximetry continuous or Q4 hr; ABG if indicated; supplemental oxygen; reassessment Q4 hr
- Cardiac monitoring, cardiac markers, ECGs, BNP as needed

DISCHARGE PARAMETERS

- Acceptable VS; resolution of exacerbation or return to baseline status
- Pulse Ox >90% on room air or home FiO2

ADMISSION PARAMETERS

- Progressive deterioration; failure to resolve exacerbation within 18 hours
- Co-existent pneumonia or CHF; uncompensated pCO2 retention; O2 sat <90% on room air or home FiO2

COPD EXACERBATION — ORDER SET**COPD EXACERBATION OBSERVATION ORDER SET**

Diagnosis	COPD Exacerbation
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Pulmonology
Medications	
Steroids	☐ Methylprednisolone sodium succinate (Solumedrol) 125 mg IV Push x 1 dose ☐ Prednisone 40 mg PO daily x 1 dose
Bronchodilators	☐ Albuterol 2.5 mg/3 mL nebulized q4h PRN wheeze/SOB x 3 doses — If >3 doses needed, admit patient ☐ Albuterol 15 mg/3 mL nebulized q4h PRN x 2 doses — If >2 doses needed, admit patient ☐ Duoneb 0.5 mg–2.5 mg / 3 mL nebulized q6h x 2 doses
Analgesics	☐ Acetaminophen 650 mg PO q6h PRN pain ☐ Acetaminophen 650 mg PO q4h PRN pain
Smokers	☐ Nicotine (Nicoderm) patch: 7 mg / 14 mg / 21 mg topically daily

Imaging	
Imaging	☐ Chest X-Ray, 1 view portable
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Peak Flow at admission and after each nebulizer treatment ☐ Oxygen Nasal Cannula _____ L/min PRN (O2 sat <92%) ☐ Ambulatory Oxygen Saturation

DEHYDRATION / NAUSEA & VOMITING**INCLUSION CRITERIA**

- Acceptable VS; mild to moderate dehydration; established IV access
- Self-limiting or treatable cause not requiring hospitalization
- Mild-to-moderate electrolyte abnormalities; if pregnant, first trimester only
- Evidence of dehydration: vomiting/diarrhea, elevated BUN/Cr ratio, orthostatic changes

EXCLUSION CRITERIA

- Dehydration is not clearly present; unstable VS (hypotension, tachycardia, severe dehydration)
- Severe (>15%) dehydration; severe electrolyte abnormalities; cardiovascular compromise
- Associated cause not amenable to short-term treatment: bowel obstruction, appendicitis, bowel ischemia, DTs, sepsis
- End-stage renal failure or dialysis patient

POTENTIAL CDU INTERVENTIONS

- IV hydration (D5LR if starvation ketosis or hyperemesis gravidarum present)
- Antiemetics (Zofran Q4 hr, Reglan Q6 hr); advance diet as tolerated
- Serial exams; monitor intake and output; repeat labs; OB-Gyn consult if indicated

DISCHARGE PARAMETERS

- Acceptable VS; resolution of symptoms; able to tolerate oral fluids; normal electrolytes (if done)

ADMISSION PARAMETERS

- Unstable VS; associated cause requiring hospitalization; inability to tolerate oral fluids despite protocol; continued nausea/vomiting >12 hours

DEHYDRATION / NAUSEA & VOMITING — ORDER SET**DEHYDRATION / NAUSEA & VOMITING OBSERVATION ORDER SET**

Diagnosis	Dehydration / Intractable Nausea and Vomiting
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Medications	
Antiemetics	☐ Ondansetron (Zofran) 4 mg IV q4h x 3 doses

	☐ Metoclopramide (Reglan) 10 mg IV q6h x 2 doses ☐ Ondansetron (Zofran) ODT 4 mg PO q4h PRN nausea x 3 doses (when tolerating PO)
Labs	
Labs	☐ BMP, Stat ☐ POC BMP, Stat ☐ BMP q6h (start in 6 hours) ☐ Urinalysis w/ microscopic ☐ Magnesium ☐ Phosphorous ☐ POC Glucose q6h
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring

EPISTAXIS

INCLUSION CRITERIA

- Anterior epistaxis uncontrolled after initial measures; hemodynamically stable
- Normal coagulation labs or known minor anticoagulant use

EXCLUSION CRITERIA

- Posterior epistaxis requiring operative intervention; high-volume blood loss; airway compromise
- INR >5 or platelet <50K; unstable vitals

POTENTIAL CDU INTERVENTIONS

- Nasal packing (anterior); oxymetazoline; tranexamic acid topically or orally
- ENT consultation; CBC, PT/INR, Type & Screen; IV fluids if needed

DISCHARGE PARAMETERS

- Bleeding stopped >2 hours; hemodynamically stable; close ENT follow-up arranged

ADMISSION PARAMETERS

- Recurrent bleeding; unable to control bleeding in 16 hours; posterior packing required; airway or hemodynamic compromise

EPISTAXIS — ORDER SET

EPISTAXIS OBSERVATION ORDER SET

Diagnosis	Epistaxis
Admit to	Norton Emergency Department Observation Unit

Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest with HOB elevated
Diet	☐ NPO ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr IV STAT ☐ Lactated Ringers 1000 mL @ 75 mL/hr IV STAT ☐ 0.9NS 1000 mL BOLUS
Medications	
Medications	☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting ☐ Tranexamic Acid Topical ☐ Oxymetazoline nasal spray BID
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Labs	
Labs	☐ CBC w/ Diff ☐ PT/PTT/INR ☐ Type and Screen
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring
Consults	
Consults	☐ Provider to Provider Consult: ENT

HEADACHE (INTRACTABLE)

INCLUSION CRITERIA

- Persistent pain in tension or migraine headache; hx of migraine with same aura/onset/location/pattern
- No focal neurological signs; normal CT scan (if done)
- If LP needed, it must be done and normal before CDU transfer
- Neurology, Neurosurgery, Neuro-ophthalmology consult completed in ED for complicated cases

EXCLUSION CRITERIA

- Focal neurologic signs; meningismus or high suspicion of meningitis, encephalitis, or SAH
- New CT abnormalities (hemorrhage, mass, abscess, midline shift)
- Abnormal LP if performed; hypertensive emergency (SBP >180 and DBP >120 with symptoms)
- Suspected temporal arteritis; blocked VP shunt; suspected narcotic-seeking behavior

POTENTIAL CDU INTERVENTIONS

- Serial exams with VS; neuro checks: level of alertness, speech, motor function
- Analgesics: Compazine or Reglan with Benadryl IV; Ketorolac; Solumedrol; Valproic acid; Migraine cocktail
- Neurology consult as indicated; MRI/MRA/MRV imaging as indicated

DISCHARGE PARAMETERS

- Resolution of pain; no deterioration in clinical course; return to baseline neuro and vision status

ADMISSION PARAMETERS

- No resolution in pain; deterioration in clinical course; rule-in of exclusionary causes; abnormal MRI/MRA/MRV if done

HEADACHE (INTRACTABLE) — ORDER SET

HEADACHE (INTRACTABLE PAIN) OBSERVATION ORDER SET

Diagnosis	Headache — Intractable Pain
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clears advancing as tolerated ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Neurology

Medications	
Analgesics	☐ Acetaminophen 650 mg PO q6h or q4h PRN pain ☐ Ketorolac 15 mg IV OR 30 mg IM x 1 dose PRN moderate pain
Antiemetics	☐ Ondansetron (Zofran) 4 mg IV/PO q6h PRN nausea/vomiting ☐ Metoclopramide (Reglan) 5–10 mg IV/PO q6h PRN nausea/vomiting
Adjunct	☐ Diphenhydramine 25 mg IV q8h for headache
Migraine Cocktail	☐ Ketorolac 15 mg IV OR 30 mg IM x 1 dose ☐ Prochlorperazine 10 mg IV x 1 dose ☐ Diphenhydramine 25 mg PO x 1 dose ☐ 0.9NS or LR 1000 mL Bolus
Imaging	
Imaging	☐ CT Head w/o contrast ☐ MRI/MRA/MRV imaging as indicated
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Yale Swallow Screen

HEART FAILURE (CHF)

INCLUSION CRITERIA

- Previous history of CHF; acceptable VS: SBP >100, RR <32, HR <130
- Pulse Ox >90% on room air after initial treatment, correctable to >92% on O2 by NC
- High likelihood of correction to baseline status within 24 hours with good home support; no acute comorbidities

EXCLUSION CRITERIA

- New-onset CHF; acute cardiac ischemia (EKG changes, positive troponin, ongoing ischemic chest pain)
- Unstable VS after treatment: HR >130, SBP <85 or >180, RR >32, Pox <92% on O2 by NC
- Acute comorbidities: sepsis, pneumonia, new murmur, confusion
- Severe anemia (Hgb <8), renal failure (BUN >40 or Cr >3), Na <135, BNP >1,000 (not strict exclusion — consider)
- Patients requiring vasoactive drips, invasive or noninvasive ventilation (BiPAP)

POTENTIAL CDU INTERVENTIONS

- Cardiac monitoring; strict I&O; VS Q4 hr; weight on arrival
- Oxygen per respiratory guidelines with continuous pulse oximetry
- Serial HS-Troponin I and ECGs at 1 and 3 hours from first ED blood draw; repeat electrolytes Q6 hr and PRN
- IV diuretics (2× home dose) Q6 hr, ASA; echocardiography if not done within 30 days
- CHF, smoking cessation, and low-salt diet education; social worker consult as needed

DISCHARGE PARAMETERS

- Subjective improvement; no chest pain, orthopnea, or exertional dyspnea above baseline
- Acceptable VS: O2 sat at baseline or >94%, RR <20, HR <100, SBP >100 or baseline
- Evidence of adequate diuresis: 1L urine output, decrease in weight/JVD; CHF discharge checklist completed

ADMISSION PARAMETERS

- New ischemic EKG changes, arrhythmia, or positive cardiac markers; persistent hypoxia, rales, dyspnea
- Poor response to therapy; poor home support; physician judgment

HEART FAILURE (CHF) — ORDER SET**HEART FAILURE (CHF) OBSERVATION ORDER SET**

Diagnosis	Congestive Heart Failure Exacerbation
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Bedrest with bathroom privileges
Diet	☐ Heart Healthy Diet ☐ Diabetic diet if indicated ☐ Fluid restriction 1500 mL
Consults	
Consults	☐ Cardiology / Heart Failure service ☐ Social Worker ☐ RN for educational needs: dietary modifications
Medications	
Diuretics	☐ IV diuretics (2× home dose) q6h
Electrolyte Replacement	☐ Potassium replacement per protocol ☐ Magnesium sulfate 2 g IV over 1 hour if indicated
Other	☐ Continue home medications as indicated
Labs	
Labs	☐ HS-Troponin: 2 sets drawn 1 hour apart, Δ <6 — timed from ED arrival/first draw; send STAT ☐ Digoxin level ☐ Repeat chemistry panel q6h and PRN ☐ Magnesium ☐ ABG ☐ Lipid profile
Diagnostics	

Diagnostics	☐ EKG (note time): 3 hr and 4 hr — and PRN change in patient status
Functional Study (select one)	☐ Echocardiogram (if not performed within 30 days) ☐ Stress Echocardiogram
Nursing Orders	
Nursing	☐ IV saline lock, flush per unit routine ☐ VS q4h and PRN change in patient status ☐ Weight on arrival and daily ☐ Cardiac Monitoring ☐ Oxygen 2 L/min PRN via nasal cannula; pulse oximetry — notify provider if SpO2 <90% ☐ Strict I&O ☐ Foley catheter placement PRN diuresis ☐ CHF self-care, smoking cessation, and low-sodium diet education before discharge

HYPERGLYCEMIA

INCLUSION CRITERIA

- Non-compliance with insulin as primary cause; no other identifiable precipitant
- Hyperglycemia requiring treatment beyond ED visit; normal to near-normal pH and total CO₂ (hyperglycemia without DKA)
- New-onset hyperglycemia / suspected undiagnosed DM

EXCLUSION CRITERIA

- DKA: pH <7.3, anion gap >14, HCO₃ <20; hyperosmolar non-ketotic coma or AMS
- Mental status changes; new-onset DM (first presentation requiring education and stabilization)
- Acute comorbidity/precipitant: infection, MI, surgery, trauma; hemodialysis patients

POTENTIAL CDU INTERVENTIONS

- IV hydration: 1–2 L NS in ED, then NS at 150–250 cc/hr; when BS <250 change to D5NS
- Insulin: 0.2 u/kg initial dose in ED; CDU repeat doses 0.2 u/kg Q2 hr until BS <250, then 0.1 u/kg Q2 hr
- POC glucose on arrival then Q2 hr; BMP + BHB + VBG Q4 hr; Mg as needed; electrolyte replacement protocols
- When labs normalize (BS <250, pH >7.3, AG <14, HCO₃ >18): transition to home subQ insulin with meal
- Diabetic nurse educator consult; arrange follow-up within 1–2 days

DISCHARGE PARAMETERS

- Labs normalized: BS <250, pH >7.3, anion gap normal, bicarbonate normal
- Normal mentation and VS; no acute comorbid condition; follow-up within 1–2 days; discharged on insulin

ADMISSION PARAMETERS

- Unable to correct within 18–24 hours; worsening clinical picture or anion gap
- Acute comorbid/precipitating condition identified; unable to tolerate PO

HYPERGLYCEMIA — ORDER SET

HYPERGLYCEMIA OBSERVATION ORDER SET

Diagnosis	Hyperglycemia
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ NPO ☐ Diabetic Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr

Medications	
Insulin	☐ Insulin Correctional Scale (per Pharmacy Powerplan)
Rescue Meds	☐ Dextrose 50% IV 25 g ☐ Dextrose 50% IV 12.5 g
Labs	
Labs	☐ POC Glucose q1h
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring

HYPOGLYCEMIA

INCLUSION CRITERIA

- Blood sugar below 40 mg% pre-Rx and >80 post-treatment; symptoms resolved with glucose
- Type I or Type II Diabetes; etiology determined (e.g., missed meal, accidental extra dose)
- Stable vitals; established IV access

EXCLUSION CRITERIA

- Intentional overdose of hypoglycemic medications; altered mental status or not at neurological baseline
- Long-acting oral hypoglycemic agent that does not initially respond to oral/IV dextrose or food
- Major comorbid condition: liver failure, insulinoma, sepsis; D10 drip required to maintain euglycemia
- Inability to tolerate oral intake; ESRD/dialysis patient

POTENTIAL CDU INTERVENTIONS

- Serial POC glucose Q1–2 hr until >80 × 2 and tolerating PO without supplemental sugar
- IV D50 (or oral juice if alert) for hypoglycemia; dietary food tray; IV hydration and electrolytes as indicated
- Hold all oral hypoglycemic agents and insulin until stable; diabetic counseling as needed

DISCHARGE PARAMETERS

- Resolution of symptoms; capable adult supervision; two consecutive blood sugars >80 (1 hour apart without supplemental sugar)
- Resolution of precipitating factor; follow-up with primary care

ADMISSION PARAMETERS

- Deterioration of clinical signs; persistent neuro or mental status deficits
- Bedside glucose repeatedly <80 despite trial of diet and IV glucose; requiring dextrose drip

HYPOGLYCEMIA — ORDER SET**HYPOGLYCEMIA OBSERVATION ORDER SET**

Diagnosis	Hypoglycemia
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Diabetic Diet
IVF	As clinically indicated
Medications	
Hold	☐ Hold all oral hypoglycemic agents and insulin
Dextrose	☐ Dextrose 50% IV 25 g ☐ Dextrose 50% IV 12.5 g
Oral Glucose	☐ Oral glucose 15 gram Gel — 1 time
Labs	
Labs	☐ CBC w/ Auto Diff ☐ BMP ☐ POC Glucose q1h until >80 × 2 and tolerating PO without ongoing interventions
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring

HYPOKALEMIA / ELECTROLYTE ABNORMALITY**INCLUSION CRITERIA**

- Acceptable VS; cause of electrolyte disturbance does not require hospitalization
- No comorbidity requiring more prolonged hospitalization; mild and rapidly correctable electrolyte abnormality
- Hypokalemia >2.5 mEq/L with no ventricular ectopy; Hyponatremia >120 mEq/L with normal mentation and reversible etiology
- Hypomagnesemia >1.0 mEq/L; Hypocalcemia or Hypercalcemia within correctable range; no EKG changes

EXCLUSION CRITERIA

- Unstable VS or cardiovascular compromise; severe electrolyte abnormalities (K <2.5 or >6.0, Na <120 or >155)
- Mental status changes, seizure, or signs of cerebral edema
- Associated cause not amenable to short-term treatment: bowel obstruction, DTs, DKA, sepsis
- Unlikely to be corrected within 15 hours; more than two acute electrolyte disturbances; ESRD/dialysis patient

POTENTIAL CDU INTERVENTIONS

- Cardiac monitoring; IV electrolyte replacement/correction per protocols
- Repeat labs; serial VS and repeat clinical examination; monitor I&O

DISCHARGE PARAMETERS

- Acceptable VS; resolution of symptoms; able to tolerate oral fluids; improved electrolytes

ADMISSION PARAMETERS

- Unstable VS; associated cause requiring hospitalization; inability to tolerate oral fluids

HYPOKALEMIA / ELECTROLYTE ABNORMALITY — ORDER SET**HYPOKALEMIA / HYPOMAGNESEMIA OBSERVATION ORDER SET**

Diagnosis	Hypokalemia / Hypomagnesemia
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ NPO ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Medications	
Electrolytes	☐ Potassium Chloride 40 mEq IV ☐ Potassium Chloride 20 mEq PO

	IV Magnesium 1–2 g over 45 min
Labs	
Labs	☐ CBC w/ Auto Diff ☐ BMP ☐ Magnesium level ☐ EKG
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring

PERITONSILLAR ABSCESS

INCLUSION CRITERIA

- Peritonsillar abscess confirmed on imaging or visual inspection
- No airway compromise or systemic signs of infection
- ENT clinician consulted prior to CDU placement

EXCLUSION CRITERIA

- Airway compromise or stridor; signs of deep neck space infection (Ludwig's, retropharyngeal abscess, epiglottitis)
- Inability to tolerate secretions; immunocompromised state

POTENTIAL CDU INTERVENTIONS

- Antibiotics per Hospital Guidelines; pain control; ENT consult
- Imaging if concern for deep abscess (CT soft-tissue neck)

DISCHARGE PARAMETERS

- Pain controlled; able to take oral medications and tolerate PO; afebrile, stable vitals
- ENT recommends discharge if abscess not lanced

ADMISSION PARAMETERS

- Facial cellulitis extending to neck; drooling, stridor, or trismus despite ENT interventions
- Sepsis signs or failure of outpatient treatment

PERITONSILLAR ABSCESS — ORDER SET

PERITONSILLAR ABSCESS OBSERVATION ORDER SET

Diagnosis	Peritonsillar Abscess
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code

Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr IV STAT ☐ Lactated Ringers 1000 mL @ 75 mL/hr IV STAT ☐ 0.9NS 1000 mL BOLUS
Medications	
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 4 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Antibiotics	☐ Antibiotics per Hospital Guidelines
Labs	
Labs	☐ CBC w/ Diff ☐ BMP ☐ PT/PTT/INR ☐ Type and Screen
Imaging	
Imaging	☐ CT Maxillofacial w/ contrast (if not done in ED)
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring
Consults	
Consults	☐ Provider to Provider Consult: ENT

PNEUMONIA

INCLUSION CRITERIA

- History, exam, and CXR consistent with acute pneumonia; PSI/PORT score class <3
- O2 saturation >92% on room air at time of CDU admission
- Able to return to previous living environment when discharged (outpatient support present)
- Initial dose of antibiotics given in the ED

EXCLUSION CRITERIA

- Persistently abnormal vitals after ED treatment: O2 sat <92% on RA, HR >120–130, SBP <100, RR >26–30, T <96°F or >104°F
- Significantly abnormal ABG (pCO2 >45, pH <7.35); potential respiratory failure; multi-lobar pneumonia
- Immunocompromised patients: AIDS, PCP pneumonia, chemotherapy, chronic steroids, active cancer, sickle cell disease, asplenic
- High-risk patients: nursing home, cirrhosis, ESRD, altered mental status, nosocomial/aspiration risk
- High suspicion of DVT/PE, SARS, H1N1, or TB

POTENTIAL CDU INTERVENTIONS

- Antibiotics per Hospital Guidelines
- Supplemental oxygen and bronchodilators as needed; steroids as indicated; analgesics for pain or cough
- Serial VS; cardiac and O2 saturation monitoring; assistance with ADLs; incentive spirometry

DISCHARGE PARAMETERS

- Subjective and clinical improvement; acceptable VS during observation; patient able to tolerate oral medications and diet

ADMISSION PARAMETERS

- Patient not subjectively improved enough for discharge; lack of clinical progress or deterioration; CDU physician discretion

PNEUMONIA — ORDER SET

PNEUMONIA OBSERVATION ORDER SET

Diagnosis	Pneumonia
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet

IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Infectious Disease (as indicated)
Medications — Antibiotics	
Antibiotics	☐ Antibiotics per Hospital Guidelines
Analgesics (select one)	
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 2 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Imaging	
Imaging	☐ Chest X-Ray 1 view portable
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Continuous Monitoring ☐ Incentive Spirometry

RENAL COLIC

INCLUSION CRITERIA

- Diagnosis of renal colic established by CT or ultrasound
- Uncomplicated stone with persistent pain or vomiting despite ED medication
- Stable vital signs, afebrile
- Urology consulted for renal colic

EXCLUSION CRITERIA

- Unstable VS or sepsis in setting of nephrolithiasis
- Solitary kidney
- Clinical evidence of UTI (fever, significant pyuria on catheterized specimen)
- Known concomitant obstruction and infection
- Acute kidney injury not correctable within 18 hours
- End-stage renal failure or dialysis patient

• Severe medical comorbidity; probability of discharge within 24 hours <80%
POTENTIAL CDU INTERVENTIONS
• IV hydration; IV narcotics, ketorolac, antiemetics as needed
• Medical expulsive therapy (tamsulosin/Flomax, steroids)
• Diagnostic tests as needed: ultrasound or CT
• Serial exams and vital signs; strain urine for stone capture and analysis
• Urinalysis if not already obtained
• Urology consultation as needed
DISCHARGE PARAMETERS
• Acceptable VS; pain and nausea resolved or controlled; passage of stone
ADMISSION PARAMETERS
• Persistent vomiting or uncontrolled pain after 14 hours
• Fever (T >101°F) at 24 hours
• Coexistent infection or significant imaging abnormality
•
• Change in diagnosis requiring further therapy or workup

RENAL COLIC — ORDER SET

RENAL COLIC OBSERVATION ORDER SET

Diagnosis	Renal Colic
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated
Diet	☐ NPO ☐ Clears advancing to Regular Diet as tolerated ☐ Regular Diet
IVF	☐ 0.9NS @ _____ mL/hr
Medications	
Expulsive Therapy	☐ Tamsulosin (Flomax) 0.4 mg PO daily x 1 dose
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV q4h PRN nausea x 3 doses
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Ketorolac (Toradol) 15 mg IV q6h

	☐ Morphine 2 mg IV q3h PRN x 2 doses (Moderate pain 5-7) ☐ Morphine 4 mg IV q4h PRN x 2 doses (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Nursing Orders	
Nursing	☐ Strain all urine ☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring

SEIZURE

INCLUSION CRITERIA

- Past history of seizures with breakthrough seizure or subtherapeutic anticonvulsant level
- No seizure in last 2 hours; vital signs normal; no new neurological deficits
- New-onset seizures with normal neuro exam, normal head CT, and Neurology agreement

EXCLUSION CRITERIA

- Ongoing seizures, post-ictal state, or status epilepticus
- Persistent focal neurological findings (Todd's paralysis)
- Clinical suspicion of meningitis, new stroke, or delirium of any etiology including alcohol withdrawal/DTs
- Seizures due to toxic exposure (CO, theophylline) or hypoxemia; pregnancy beyond first trimester/eclampsia
- New findings on head CT; new EKG changes or significant arrhythmias

POTENTIAL CDU INTERVENTIONS

- Appropriate anticonvulsant therapy guided by Neurology consult; seizure precautions
- Serial neuro checks and VS Q2–4 hr; cardiac and oximetry monitoring; EEG as indicated
- MRI Brain with and without contrast; toxicological testing PRN; NPO or liquid diet as indicated

DISCHARGE PARAMETERS

- No deterioration in clinical status; therapeutic anticonvulsant levels (if indicated)
- Correction of abnormal labs; appropriate home environment; Neurology agrees with discharge

ADMISSION PARAMETERS

- Deterioration of clinical status, mentation, or neuro exam; recurrent seizures or status epilepticus
- Rule-in for exclusionary causes; not sufficiently alert for discharge after 16–18 hours

SEIZURE — ORDER SET

SEIZURE OBSERVATION ORDER SET

Diagnosis	Seizure
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Neurology ☐ PT/OT (as indicated)
Medications — Rescue Seizure	
Seizure Rescue	☐ Midazolam (Versed) 5 mg IM PRN seizures ☐ Midazolam (Versed) 2 mg IV PRN seizures ☐ Levetiracetam (Keppra) dosing per pharmacy IV once ☐ Lorazepam (Ativan) 2 mg IV PRN seizure
Labs	
Labs	☐ EKG x 1 ☐ Serum Toxicology Screen ☐ Urine Drugs of Abuse ☐ BMP q6h ☐ POC Glucose q4h ☐ Magnesium level ☐ Phosphorous level
Imaging / Monitoring	
EEG / Imaging	☐ Continuous EEG (as indicated) ☐ 1-hour EEG ☐ MRI Brain
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Neurological checks q4h

SYNCOPE

INCLUSION CRITERIA

- Intermediate-risk syncope patient; minimum ED interventions: ECG, monitor, stool guaiac, orthostatic VS, IV, labs
- No acute dyspnea or history of CHF; no acute ECG changes or new bundle branch block
- Vital signs normal; no new neurologic deficits; Canadian Syncope Score ≤ 3

EXCLUSION CRITERIA

- Unstable VS: HR <50 or >100 , SBP <100 or >200 , SpO₂ $<94\%$, RR >24
- ECG: BB blocks (LBBB; RBBB+LAFB/LPFB esp. with 1st degree HB); QTc >500 ms; new ST/T changes
- Significant cardiac arrhythmias; serious cause suspected (ACS, PE, GI bleed, sepsis, AAA, IC bleed)
- Significant injury (subdural hematoma); new CT findings or elevated high-sensitivity troponin; unsafe home environment

POTENTIAL CDU INTERVENTIONS

- Serial VS, cardiac monitoring; postural BP; serial high-sensitivity troponin at 0, 3, and 6 hours
- IV hydration and diet; selective workup based on clinical suspicion:
- Cardiac: 2D echo, stress imaging, tilt testing, holter/Zio patch, EP/Cardiology consult
- PE: D-dimer, CTA chest, venous Doppler
- Neuro: serial neuro checks, HCT, Neurology consult, possible EEG

DISCHARGE PARAMETERS

- Benign CDU course; stable VS; no arrhythmia on monitor history; acceptable home environment
- Ambulating; able to perform ADLs; follow-up with holter/event monitor as needed

ADMISSION PARAMETERS

- Deterioration of clinical course; significant testing abnormalities; unsafe home environment; unable to perform ADLs

SYNCOPE — ORDER SET

SYNCOPE OBSERVATION ORDER SET

Diagnosis	Syncope
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ Cardiac Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr

	☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Cardiology ☐ PT/OT as indicated
Medications	
Medications	☐ ☐ Acetaminophen (Tylenol) 650 mg PO q4h x 3 doses PRN pain
Labs	
Labs	☐ EKG q4h x 3 (or PRN for chest pain) ☐ Troponin q4h x 2
Imaging	
Imaging	☐ 2D Echocardiography (as indicated) ☐ Holter Monitor
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Continuous Monitoring ☐ Telemetry Monitoring ☐ Neurological checks q2h

TIA / RULE-OUT STROKE

INCLUSION CRITERIA

- Transient ischemic attack — resolved acute deficit, not crescendo TIAs
- Sub-acute stroke (onset >72 hr; NIHSS <4; seen by Neurology in ED)
- No acute stroke on Head CT and CTA (unless prompt MRI planned, normal exam, not high risk for bleed)
- Workup can be completed within ~18 hours

EXCLUSION CRITERIA

- Head CT positive for bleed, mass, or acute infarction; TPA started in ED
- Known extra-cranial embolic source: decompensated cardiomyopathy, artificial heart valve, endocarditis, mural thrombus, recent MI
- Any persistent acute (<72 hr) neurological deficit or crescendo TIAs
- Non-focal symptoms: confusion, seizure, transient global amnesia; hypertensive encephalopathy
- Unable to ambulate independently or pass ED dysphagia screen; pregnancy; poor home support

POTENTIAL CDU INTERVENTIONS

- Neuro checks Q2 hr; Neurology consult (done in ED) to detect occult stroke
- Fasting lipid panel, HgA1c; carotid imaging with MRI/MRA (or CTA/Doppler if MRI contraindicated)

• 2D echocardiography as indicated; cardiac monitoring ≥12 hours for paroxysmal AF • Antiplatelet therapy: Aspirin; if on ASA then Plavix or Aggrenox; stroke-prevention education • Rehab evaluation and outpatient treatment planning for subacute strokes
DISCHARGE PARAMETERS
• No recurrent deficits; negative workup; MRI negative; Stroke service sign-off; stable for discharge on ASA 81 mg/day
ADMISSION PARAMETERS
• Recurrent symptoms/deficit; evidence of treatable vascular disease (>50% stenosis) or embolic source requiring anticoagulation • Paroxysmal AF; unable to complete workup or safely discharge within timeframe; CDU physician judgment

TIA / RULE-OUT STROKE — ORDER SET

TRANSIENT ISCHEMIC ATTACK — OBSERVATION ORDER SET

Diagnosis	Rule Out Stroke / Transient Ischemic Attack
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Consults	☐ Neurology (Stroke Service) ☐ Speech Pathology ☐ PT/OT as indicated
Medications	
Antiemetics	☐ Ondansetron (Zofran) 4 mg IV/PO q6h PRN nausea/vomiting ☐ Metoclopramide (Reglan) 5–10 mg IV/PO q6h PRN nausea/vomiting
Labs	
Labs	☐ Lipid Panel ☐ Hemoglobin A1c
Imaging	
Imaging	☐ MRI Brain w/o — Code Stroke ☐ 2D Transthoracic Echocardiogram
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Continuous Monitoring

	☐ Neurological checks Q2hr x 6 hours, then Q4hr ☐ Yale Bedside Swallow Study
RULE OUT STROKE — OBSERVATION ORDER SET	
Diagnosis	Rule Out Stroke (Low NIH, Pending MRI)
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr IV STAT ☐ Lactated Ringers 1000 mL @ 75 mL/hr IV STAT
Medications	
Antiemetics	☐ Ondansetron (Zofran) 4 mg PO q6h PRN nausea/vomiting ☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting ☐ Metoclopramide (Reglan) 5–10 mg PO or IV q6h PRN nausea/vomiting
Labs / Imaging	
Labs	☐ Lipid Panel ☐ Hemoglobin A1c
Imaging	☐ MRI Brain w/o — Code Stroke
Nursing Orders	
Nursing	☐ Saline Lock Insert ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Neurological checks Q2hr x 6 hours, then Q4hr
Consults	
Consults	☐ Provider to Provider Consult: Neurology — Stroke Service ☐ Consult to Speech Pathology ☐ Consult to PT ☐ Consult to OT

URINARY TRACT INFECTION / PYELONEPHRITIS

INCLUSION CRITERIA

- Acceptable VS and normal mentation; clinical evidence of pyelonephritis (flank pain, urgency, frequency, dysuria)
- UA evidence of pyelonephritis (significant pyuria, nitrates, and/or leukocyte esterase); urine cultures obtained
- Not suitable for discharge from the ED; initial dose of antibiotics given in ED

EXCLUSION CRITERIA

-
- Abnormal VS after ED treatment (SBP <90, HR >130, T <96°F or >104°F); mental status changes; sepsis
- Significant comorbidities: renal failure, sickle cell disease; immunosuppressed patients (HIV, transplant, high-dose steroids, asplenic)
- Urinary tract anatomic abnormality (solitary kidney, reflux, indwelling device); urethral or ureteral obstruction
- Poor candidate for outpatient treatment (poor home support)

POTENTIAL CDU INTERVENTIONS

- IV hydration, antiemetics, antipyretics; advance to oral antibiotics as tolerated
- Antibiotics per Hospital Guidelines
- Imaging as needed (CT or ultrasound); PCP follow-up within 72 hours for culture results

DISCHARGE PARAMETERS

- Resolution or improvement of systemic symptoms; ability to take PO medications; stable VS

ADMISSION PARAMETERS

- Clinical deterioration or lack of adequate improvement; inability to tolerate oral meds or hydration
- Unstable VS or evidence of septic shock; abnormal imaging (ureteral obstruction, emphysematous pyelonephritis)

URINARY TRACT INFECTION / PYELONEPHRITIS — ORDER SET

Diagnosis	Urinary Tract Infection / Pyelonephritis
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr

Medications — Antibiotics

Antibiotics	☐ Antibiotics per Hospital Guidelines
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV q4h PRN nausea x 3 doses
Analgesics (select one)	
Analgesics	☐ Oxycodone/Acetaminophen (Percocet) 5/325 1–2 tabs PO q4h PRN pain x 3 doses
	☐ Morphine 4 mg IV q4h PRN pain x 3 doses
	☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN pain x 3 doses
Nursing Orders	
Nursing	☐ Saline Lock
	☐ VS Q4hr
	☐ Continuous Monitoring

VAGINAL BLEEDING**INCLUSION CRITERIA**

- Heavy dysfunctional uterine bleeding; progestin ordered in ED
- Bleeding in early pregnancy (quant HCG <6000) with ultrasound showing no intrauterine or ectopic pregnancy
- Threatened abortion with ongoing bleeding; first-trimester missed or inevitable spontaneous abortion (OB-GYN input REQUIRED)
- CBC results available; blood bank tube sent

EXCLUSION CRITERIA

- Unresolved hemodynamic compromise in ED (HR >110, SBP <90, HR rise >30 on standing)
- Hematocrit <20; EGA >12 weeks; coagulopathy (prolonged PT/PTT, thrombocytopenia)

POTENTIAL CDU INTERVENTIONS

- Serial VS and bleeding intensity checks (pad count); IV saline infusion
- RhoGam for pregnant Rh-negative patients; repeat hematocrit; blood transfusion if Hgb <7

DISCHARGE PARAMETERS

- Bleeding decreased; VS stable; repeat hematocrit acceptable
- Uterine evacuation performed if indicated (patient recovered from procedure)
- Follow-up to OB for 1st-trimester patients; follow-up to GYN for endometrial biopsy if indicated

ADMISSION PARAMETERS

- Inpatient procedure required; VS unstable; bleeding intensity does not slow or increases

VAGINAL BLEEDING — ORDER SET**VAGINAL BLEEDING OBSERVATION ORDER SET**

Diagnosis	Vaginal Bleeding
Admit to	Norton Emergency Department Observation Unit
Code Status	☐ Full Code
Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO if uterine evacuation anticipated ☐ Clears ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Medications	
Hormonal	☐ Medroxyprogesterone (Provera) 10 mg PO daily — continue progestin started in ED
Antifibrinolytic	☐ Tranexamic Acid (TXA) 1300 mg PO TID ☐ Tranexamic Acid (TXA) 1 g IV over 10 minutes x 1 dose
Rh Immune Globulin	☐ Rho(D) immune globulin (RhoGam) 300 mcg IM x 1 dose — pregnant and Rh-negative
Antiemetic	☐ Ondansetron (Zofran) 4 mg IV Push q6h PRN nausea/vomiting
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 4 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Labs	
Labs	☐ CBC w/ Auto Diff, Stat ☐ CBC q6h (hematocrit trend) ☐ Type and Screen; blood bank specimen ☐ PT/PTT/INR ☐ Quantitative beta-hCG ☐ Rh type ☐ Red Blood Cells Product Order — 2 units (transfuse if Hgb <7, per Blood Transfusion protocol)
Imaging	
Imaging	☐ Pelvic ultrasound, transvaginal and transabdominal (if not performed in ED)
Nursing Orders	
Nursing	☐ Saline Lock Insert

	☐ VS Q4hr ☐ Cardiac Monitoring ☐ Pad count q4h and PRN — notify provider for saturation of >1 pad per hour ☐ Strict I&O ☐ Orthostatic vital signs before ambulation
Consults	
Consults	☐ Provider to Provider Consult: OB-GYN

VENOUS THROMBOEMBOLISM (VTE)

INCLUSION CRITERIA

- PE confirmed by radiology with PESI score <65 or <90 (class I–II)
- DVT: femoral/popliteal DVT with need for pain control; upper extremity DVT needing PICC replacement
- Hemodynamically stable; adequate home and outpatient support for safe discharge on anticoagulants
- Labs: normal PT, PTT, CBC, platelet count, and Cr

EXCLUSION CRITERIA

- Abnormal VS: HR >110, SBP <100, SpO2 <90% with ambulation; currently on therapeutic anticoagulation
- Pregnancy; ESRD on HD; cancer on active chemo/radiation/palliation; CrCl <30 mL/min; BMI >40
- Contraindications to anticoagulation (coagulopathy, recent neuro/ophthalmologic surgery, recent intracranial hemorrhage)
- PE exclusions: RV strain on CT/echo, elevated troponin or BNP, ischemic EKG changes, extensive or saddle PE
- DVT exclusions: phlegmasia, iliac or common femoral DVT, upper extremity DVT due to pacer or vascular device not replaceable in 24 hr

POTENTIAL CDU INTERVENTIONS

- VS and cardiac monitor ≥12 hours for bleeding or thromboembolic complications; pain control (avoid NSAIDs)
- Echo/venous Dopplers as needed; pharmacy consult for medication selection and 30-day supply
- Initiate DOAC (apixaban, rivaroxaban) or LMWH; VTE/anticoagulant education; schedule outpatient follow-up

DISCHARGE PARAMETERS

- Acceptable VS; uncomplicated CDU course; able to ambulate without significant pain; can obtain 30-day anticoagulant
- Patient and caregiver understand diagnosis and return precautions for anticoagulant therapy

ADMISSION PARAMETERS

- Bleeding or thromboembolic complications; failure of the above discharge parameters; PE attending consult if high-risk features occur

VENOUS THROMBOEMBOLISM (VTE) — ORDER SET

VENOUS THROMBOEMBOLISM OBSERVATION ORDER SET

Diagnosis	Venous Thromboembolism (DVT / PE)
Admit to	Norton Emergency Department Observation Unit

Activity	☐ Up as Tolerated ☐ Bed Rest
Diet	☐ NPO ☐ Clear Liquids advancing to Regular Diet ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 20 mL/hr ☐ Lactated Ringers — rate as ordered
Analgesics (select one — avoid NSAIDs)	
Analgesics	☐ Acetaminophen 650 mg PO q4h PRN (Mild Pain 1–3) ☐ Hydrocodone/Acetaminophen (Norco) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Oxycodone/Acetaminophen (Percocet) 5/325 1 tab PO q4h PRN (Moderate Pain 4–6) ☐ Morphine 4 mg IV q4h PRN (Severe pain 7–10) ☐ Hydromorphone (Dilaudid) 1 mg IV q4h PRN (Severe pain 7–10)
Anticoagulation (select one — Pharmacy to verify dosing)	
Anticoagulation	☐ Apixaban (Eliquis) 10 mg PO BID x 7 days, then 5 mg BID ☐ Rivaroxaban (Xarelto) per Pharmacy dosing per indication ☐ Enoxaparin (Lovenox) 1 mg/kg SQ q12h
Labs	
Labs	☐ CBC ☐ BMP ☐ PT/PTT/INR ☐ EKG PRN chest pain ☐ Troponin PRN chest pain: q2h x 2, then q4h x 2
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Continuous Monitoring

VERTIGO

INCLUSION CRITERIA

- Likely peripheral vertigo; acceptable VS
- Normal cerebellar exam (heel-shin or finger-nose testing); normal cranial nerve exam (corneal reflex, EOM intact)

EXCLUSION CRITERIA

- If suspected TIA: use TIA guideline
- Acute hearing loss, double vision, or neuro deficits
- Severe headache or head trauma associated with vertigo; fever (Temp $\geq 38^{\circ}\text{C}$ oral)
- Significant VS abnormalities; high clinical suspicion of central vertigo or stroke

POTENTIAL CDU INTERVENTIONS

- Benzodiazepines; anticholinergics (Antivert, Benadryl); antiemetics (Phenergan, Compazine)
- Appropriate IV hydration; further testing when indicated (blood work, head CT, Brain MRI)
- Consultation as indicated; advance diet and ambulate as tolerated

DISCHARGE PARAMETERS

- Acceptable VS; able to ambulate and care for self at home; able to take PO medications

ADMISSION PARAMETERS

- Unacceptable VS or clinical condition (e.g., stroke); significant lab or X-ray abnormalities
- Unable to take PO meds or care for self; unable to ambulate as well as before vertigo

VERTIGO — ORDER SET**VERTIGO OBSERVATION ORDER SET**

Diagnosis	Vertigo (Peripheral)
Admit to	Norton Emergency Department Observation Unit
Activity	☐ Up as Tolerated with assistance ☐ Bed Rest with side rails up ☐ Ambulate with assistance prior to discharge
Diet	☐ NPO ☐ Clears advancing to Regular Diet as tolerated ☐ Regular Diet
IVF	☐ 0.9NS 1000 mL @ 75 mL/hr ☐ 0.9NS 1000 mL Bolus ☐ Lactated Ringers @ 75 mL/hr
Medications	
Vestibular Suppressants	☐ Meclizine (Antivert) 25 mg PO q8h PRN vertigo ☐ Diphenhydramine (Benadryl) 25 mg IV/PO q6h PRN vertigo
Benzodiazepines	☐ Lorazepam (Ativan) 0.5–1 mg IV/PO q8h PRN severe vertigo
Antiemetics	☐ Ondansetron (Zofran) 4 mg IV/PO q6h PRN nausea/vomiting ☐ Promethazine (Phenergan) 12.5–25 mg IV/PO q6h PRN nausea/vomiting ☐ Prochlorperazine (Compazine) 10 mg IV q6h PRN nausea/vomiting
Labs	
Labs	☐ CBC w/ Auto Diff ☐ BMP ☐ POC Glucose
Imaging	

Imaging	☐ CT Head w/o contrast (if not performed in ED) ☐ MRI Brain w/o contrast (if central cause suspected)
Nursing Orders	
Nursing	☐ Saline Lock ☐ VS Q4hr ☐ Cardiac Monitoring ☐ Fall precautions; assist with all ambulation ☐ Dix-Hallpike testing and Epley maneuver as indicated ☐ Neurological checks q4h
Consults	
Consults	☐ Provider to Provider Consult: Neurology (if central vertigo suspected) ☐ Consult to PT for vestibular rehabilitation and gait assessment

SUPPLEMENTAL MATERIALS

Absolute Exclusion Criteria — Quick Reference

ABSOLUTE EXCLUSION CRITERIA	
Unstable Vital Signs	HR <40 or >130 bpm RR <10 or >26 bpm SBP <90 or >230 mmHg DBP >120 mmHg SpO2 <90% (COPD: <88%) Temp <96°F or >104°F
High Intensity of Service	Vasopressors, LVAD devices, continuous vasoactive drips
Inpatient Admission Needed	If ED physician identifies clear need for traditional inpatient admission
Complicated Disposition	Expected disposition complexity precludes CDU management
Age	< 15 years of age
Pregnancy	Gravid patients > 20 weeks (except cleared by OB for non-obstetric conditions)
Anticipated LOS	Expected LOS < 4–8 hours OR > 24 hours
Special Patient Conditions	Acute altered mental status (GCS <13 in CHI) Transplant patients High-risk chest pain Sub-massive/Massive PE MIW/Involuntary psychiatric hold Failure to thrive Suicidal and homicidal patients

APPENDIX A: PROTOCOL ALGORITHMS

This appendix contains visual flowchart algorithms for each CDU protocol. Each algorithm illustrates the decision pathway from observation admission through discharge or inpatient admission, with inclusion and exclusion criteria summarized at the bottom of each diagram.

The Protocol Algorithms are provided as a companion HTML document:

[Norton_CDU_Appendix_A_Protocol_Algorithms.html](#)

The following protocols are included in Appendix A:

- Acute Kidney Injury Protocol
- Allergic Reaction Protocol
- Asthma Exacerbation Protocol
- Blood Transfusion Protocol
- Cauda Equina Rule Out Protocol
- Cellulitis Protocol
- ED Chest Pain Algorithm with CDU Observation
- ED Chest Pain Imaging Guidance
- Low to Moderate Risk Chest Pain Protocol
- Stress Testing Guidelines for ED Observation Unit
- COPD Exacerbation Protocol
- Dehydration / Intractable Nausea & Vomiting Protocol
- Dysrhythmia Protocol
- Epistaxis Protocol
- Hyperglycemia Protocol
- Hypoglycemia Protocol
- Hypokalemia Protocol
- Intractable Headache Protocol
- Peritonsillar Abscess Protocol
- Pneumonia Protocol
- Renal Colic Protocol
- Seizure Protocol
- Stroke Rule Out / TIA Protocol
- Syncope Protocol
- UTI / Pyelonephritis Protocol
- Venous Thromboembolism (VTE) Protocol

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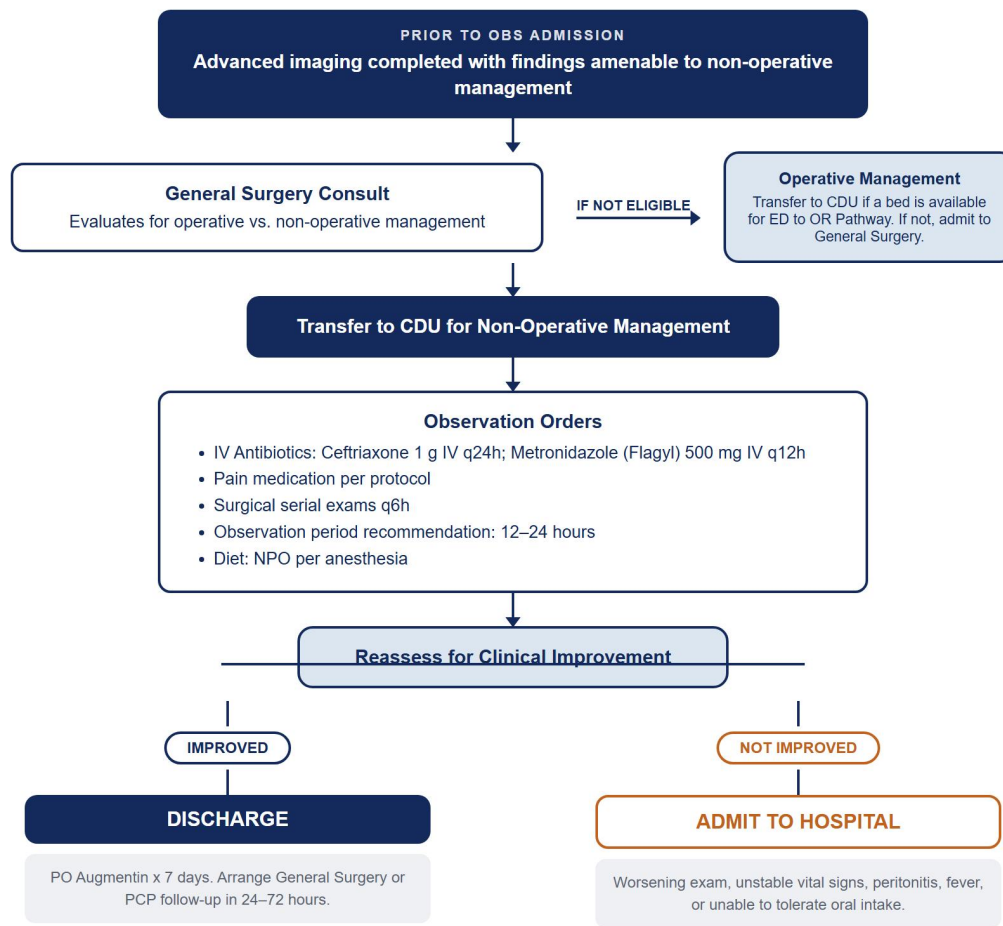
Appendix A

Protocol Algorithms

Clinical Decision Unit • Norton Healthcare

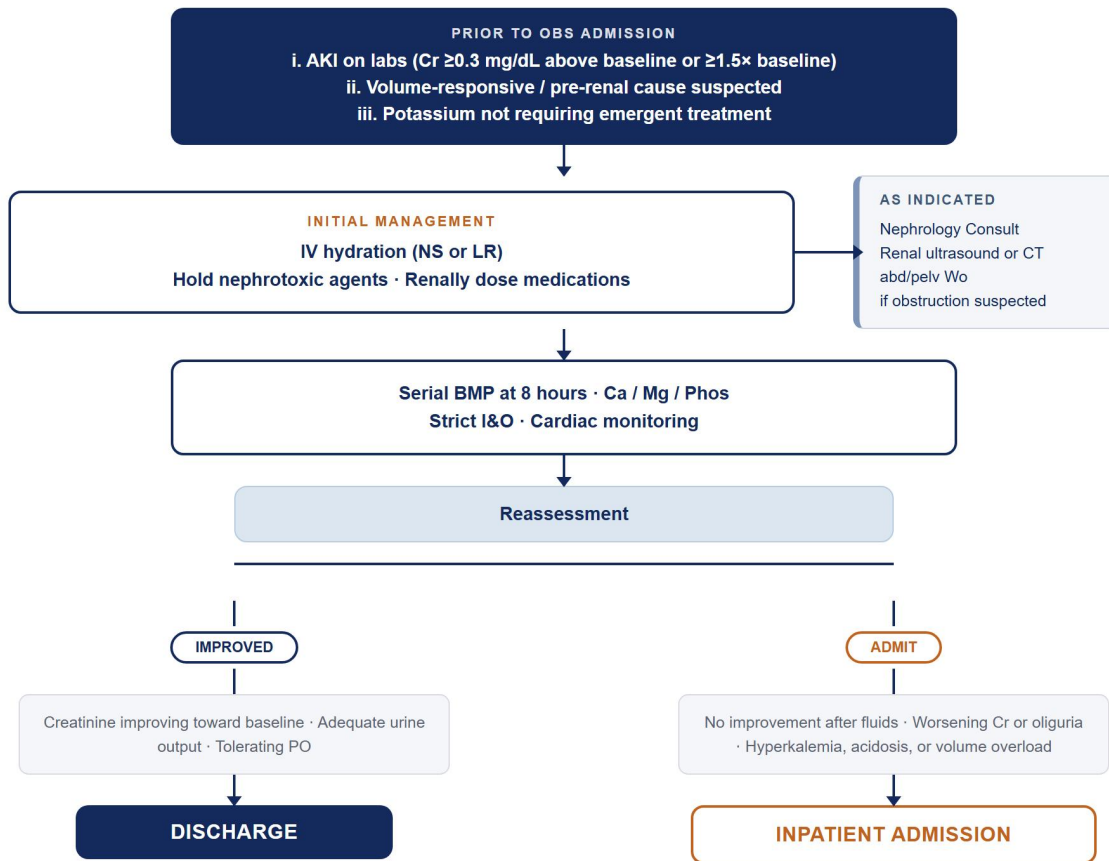
Abdominal Pain/Colitis Protocol

Norton Clinical Decision Unit



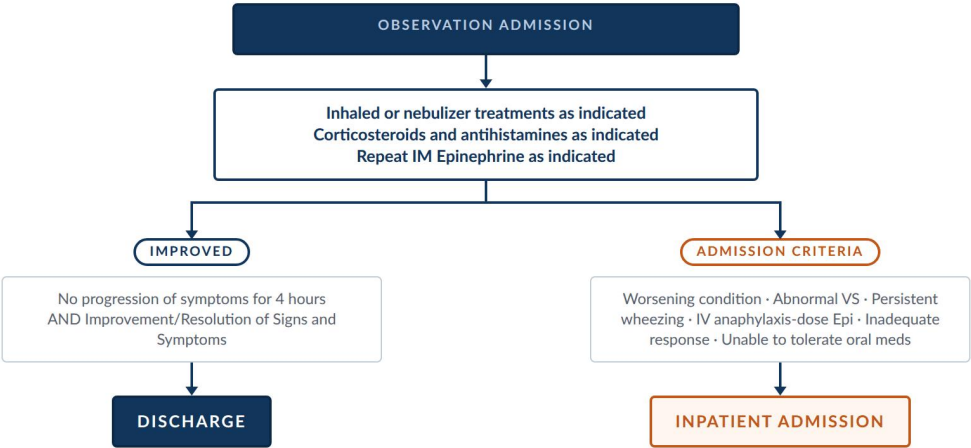
Acute Kidney Injury Protocol

Norton Clinical Decision Unit



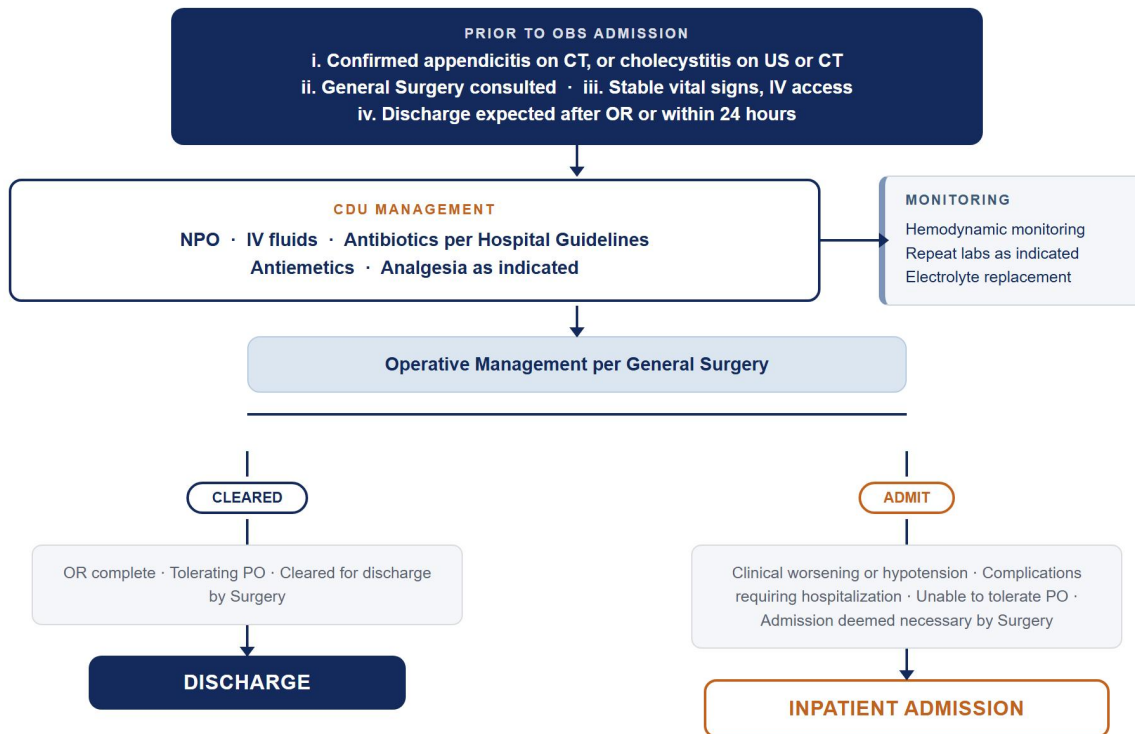
Allergic Reaction Protocol

Norton Clinical Decision Unit



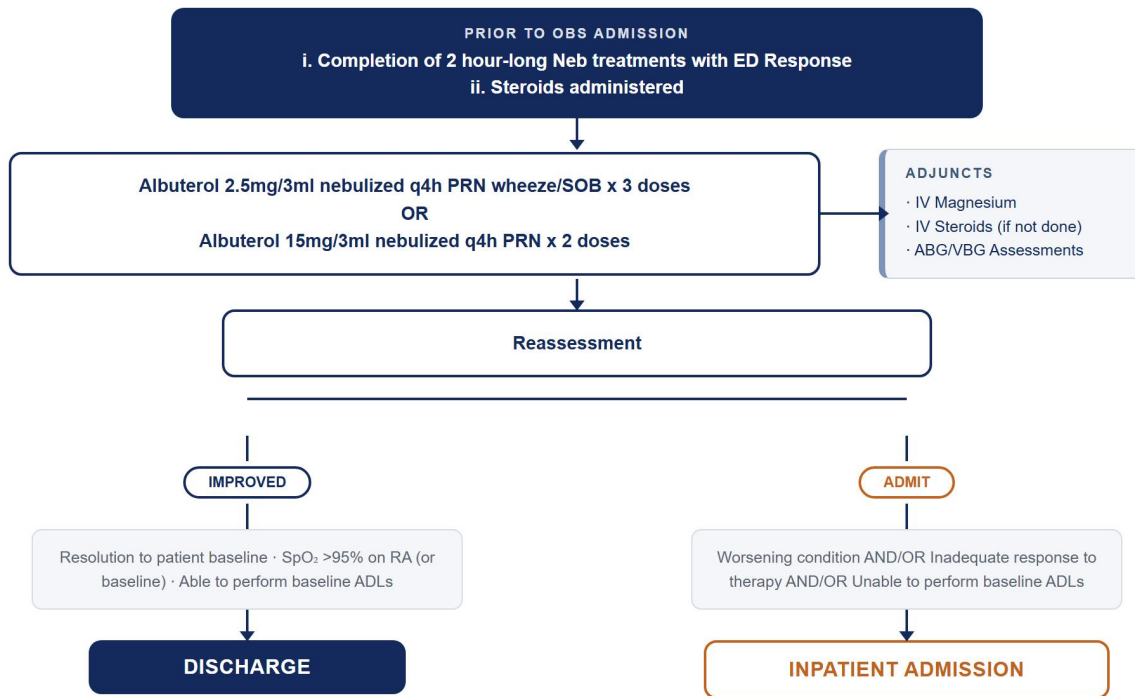
Appendicitis / Cholecystitis Protocol

Norton Clinical Decision Unit



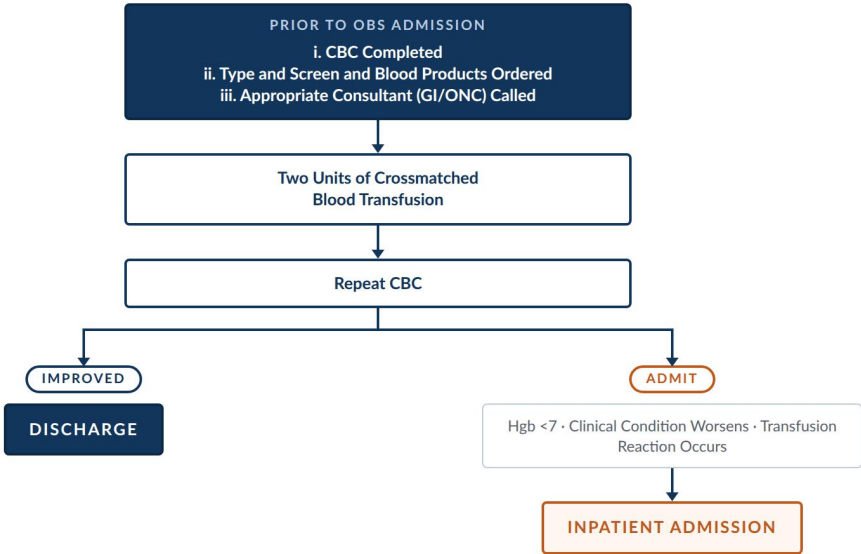
Asthma Exacerbation Protocol

Norton Clinical Decision Unit



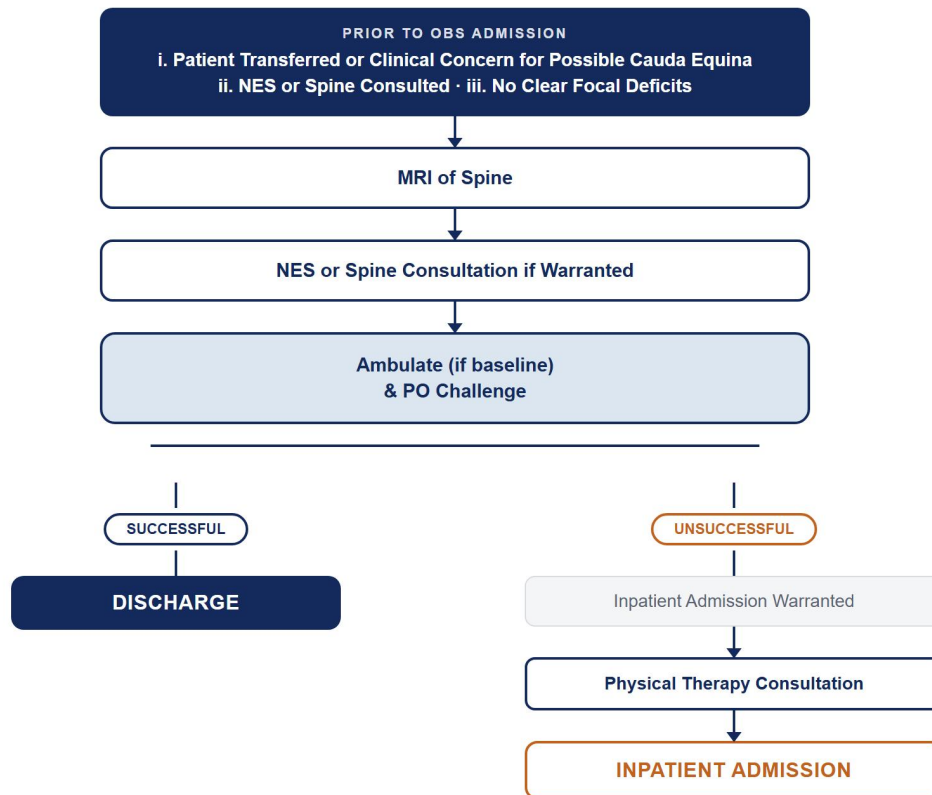
Blood Transfusion Protocol

Norton Clinical Decision Unit



Cauda Equina Rule Out Protocol

Norton Clinical Decision Unit



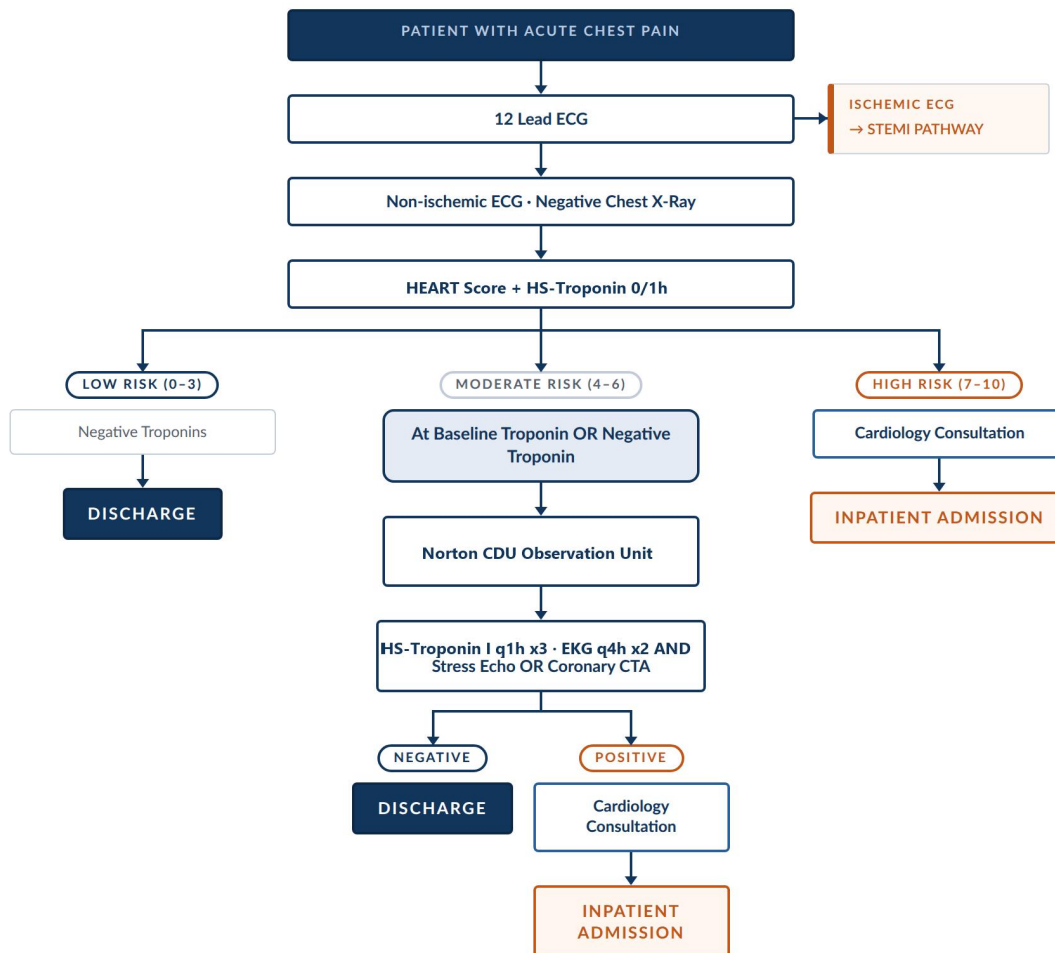
Cellulitis Protocol

Norton Clinical Decision Unit



ED Chest Pain Algorithm with CDU Observation

Norton Clinical Decision Unit

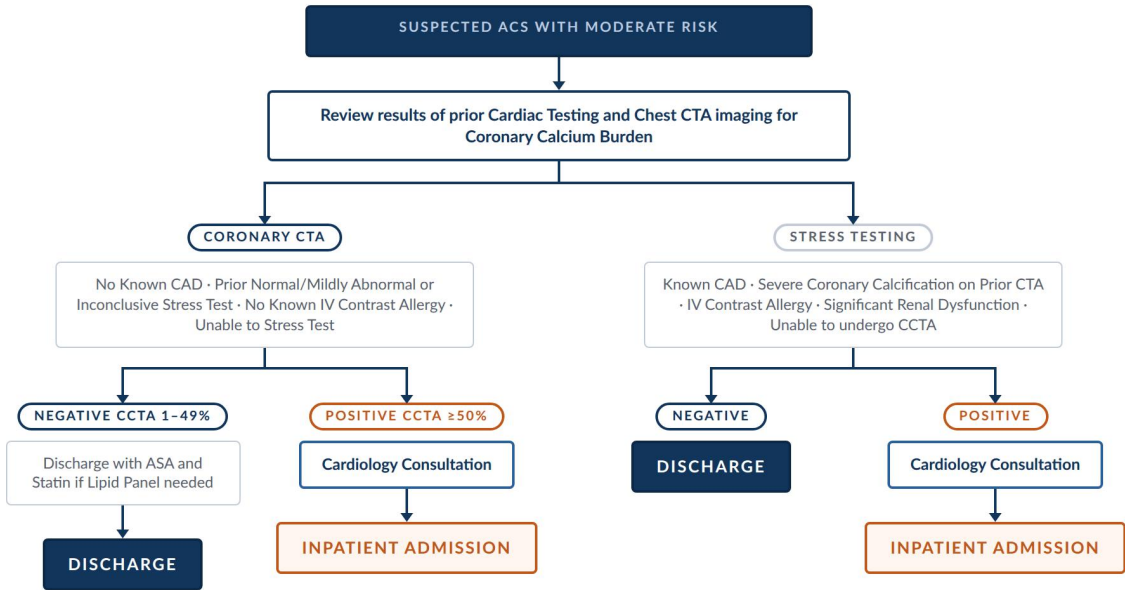


Patients discharged from the CDU must have a 7-day Cardiology follow-up.

Delta ≥ 6 change in second Troponin → Cardiology consultation / Inpatient admission.

ED Chest Pain Imaging Guidance

Norton Clinical Decision Unit

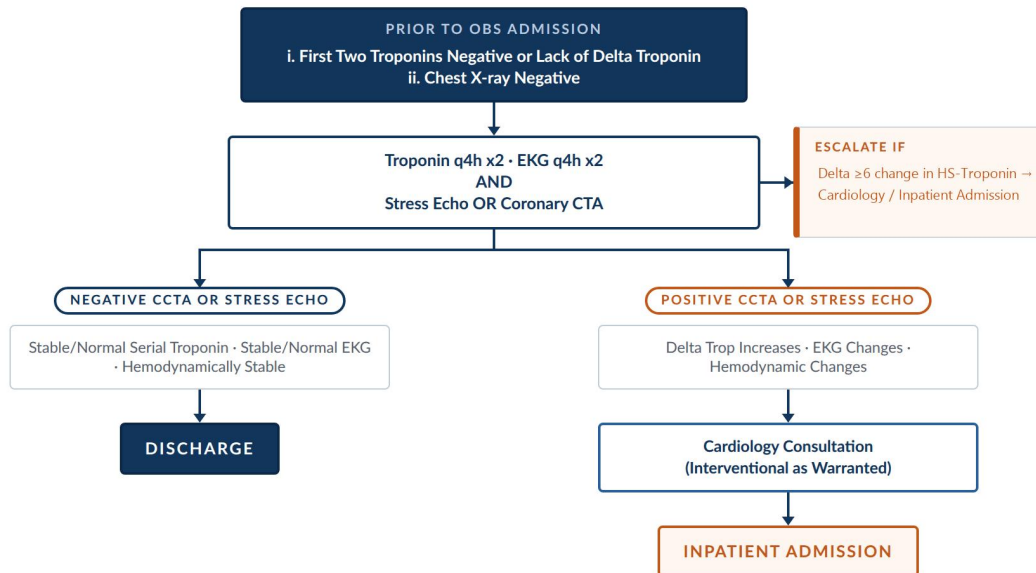


Patients discharged from the CDU must have a 7-day Cardiology follow-up.

Treadmill should be attempted first. If unable to treadmill, then dobutamine stress should be considered.

Low to Moderate Risk Chest Pain Protocol

Norton Clinical Decision Unit



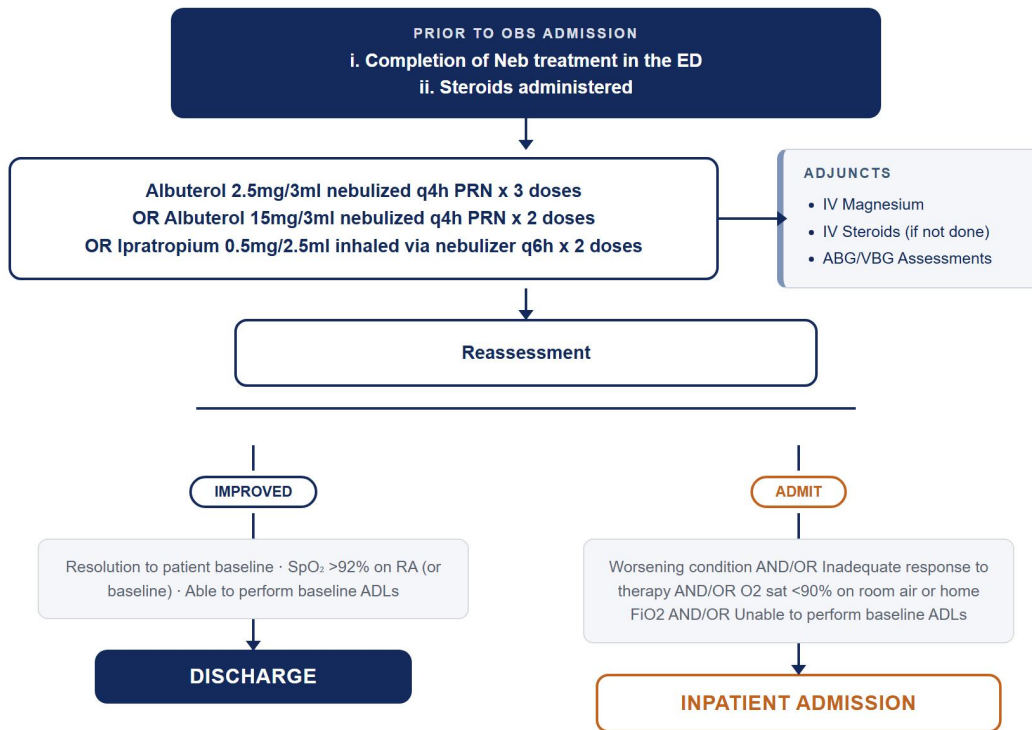
Guidelines for Stress Testing: ED Observation Unit

Norton Clinical Decision Unit

TEST	RECOMMENDED FOR	NOT RECOMMENDED FOR	SPECIAL CONSIDERATIONS
Treadmill Stress Test (EKG only)	Low to intermediate probability of disease and good exercise capacity Under 40 years old or atypical chest pain	Uncontrolled HTN, A-fib, LBBB, Betablockers Unsteady gait or ambulatory assistive device Abnormal EKG (LBBB, PACED, >1mm ST depression)	EKG only, no imaging Treadmill test with increasing incline and speed Recommended NPO (solids) 4 hours prior
Treadmill Stress Echo (Treadmill & US Imaging)	Evaluation of dyspnea, atypical CP, or valvular disorders	Uncontrolled HTN, A-fib, LBBB, COPD, Betablockers, Low EF Unsteady gait or ambulatory assistive device High probability of CAD	Treadmill test with increasing incline and speed Recommended NPO (solids) 4 hours prior
Dobutamine Stress Echo (Medication & US Imaging)	Evaluation of dyspnea, atypical CP, or valvular disorders Unable to walk the treadmill	Uncontrolled HTN, A-fib, LBBB, COPD, Low EF, Betablockers Unsteady gait, ambulatory assistive device, or pregnancy Severe Aortic stenosis or outflow tract obstruction High probability of CAD	Dobutamine drip to increase HR Recommended NPO 4 hrs for solids and 2 hrs for liquids prior
Nuclear Medicine Lexiscan (Medication & Imaging) Radioactive agent used	Obese, A-fib, LBBB, paced rhythm, prior stent or CABG, prior MI, COPD, Low EF, high probability of CAD, stable angina Betablockers ok · Unable to walk the treadmill	Pregnant or breast feeding · Caffeine intake 12 hours prior Severe COPD, active wheezing, or hypotensive patient Unable to lie flat and still on back for imaging	No caffeine 12 hours prior Caffeine and theophylline reverse Regadenoson Radioactive agent used Recommended NPO (solids) 4 hours prior
Nuclear Medicine Stress (Treadmill & Imaging) Radioactive agent used	Good exercise capacity, prior stent or CABG, prior MI, COPD, high probability of CAD · Stable angina	Pregnant or breast feeding Uncontrolled HTN, A-fib, LBBB, Betablockers Unsteady gait or ambulatory assistive device	Treadmill test with increasing incline and speed No caffeine 12 hours prior · Radioactive agent used Recommended NPO (solids) 4 hours prior

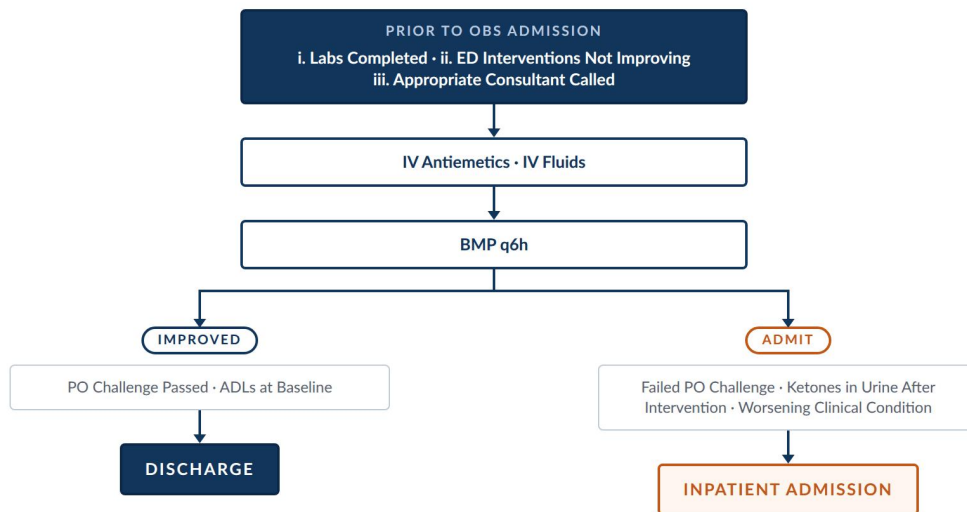
COPD Exacerbation Protocol

Norton Clinical Decision Unit



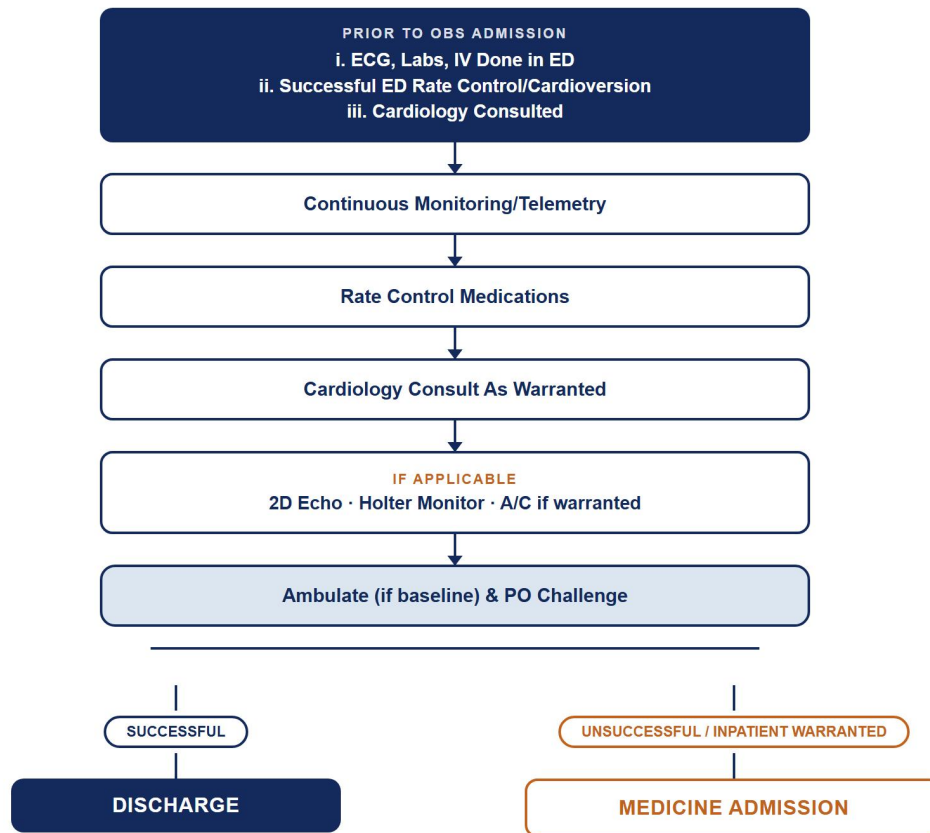
Dehydration / Intractable Nausea & Vomiting Protocol

Norton Clinical Decision Unit



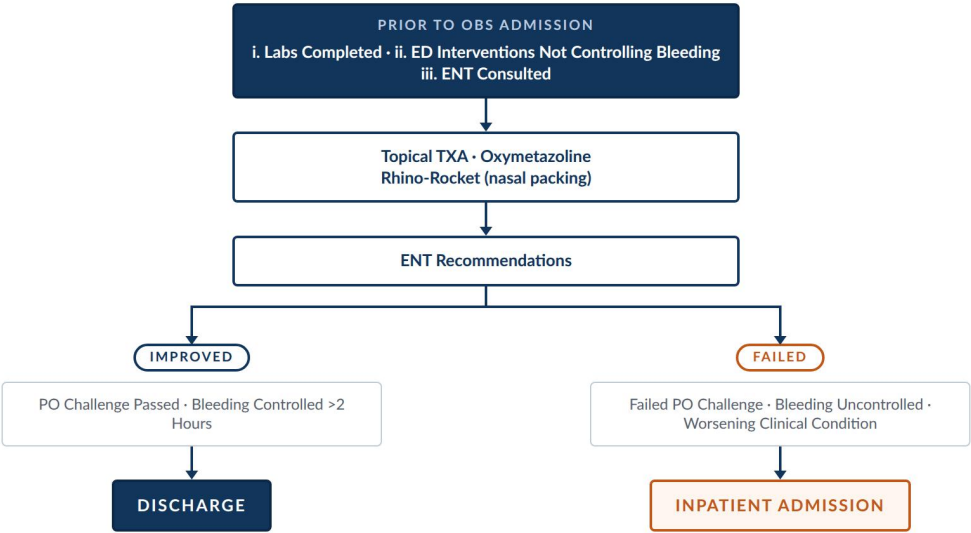
Dysrhythmia Protocol

Norton Clinical Decision Unit



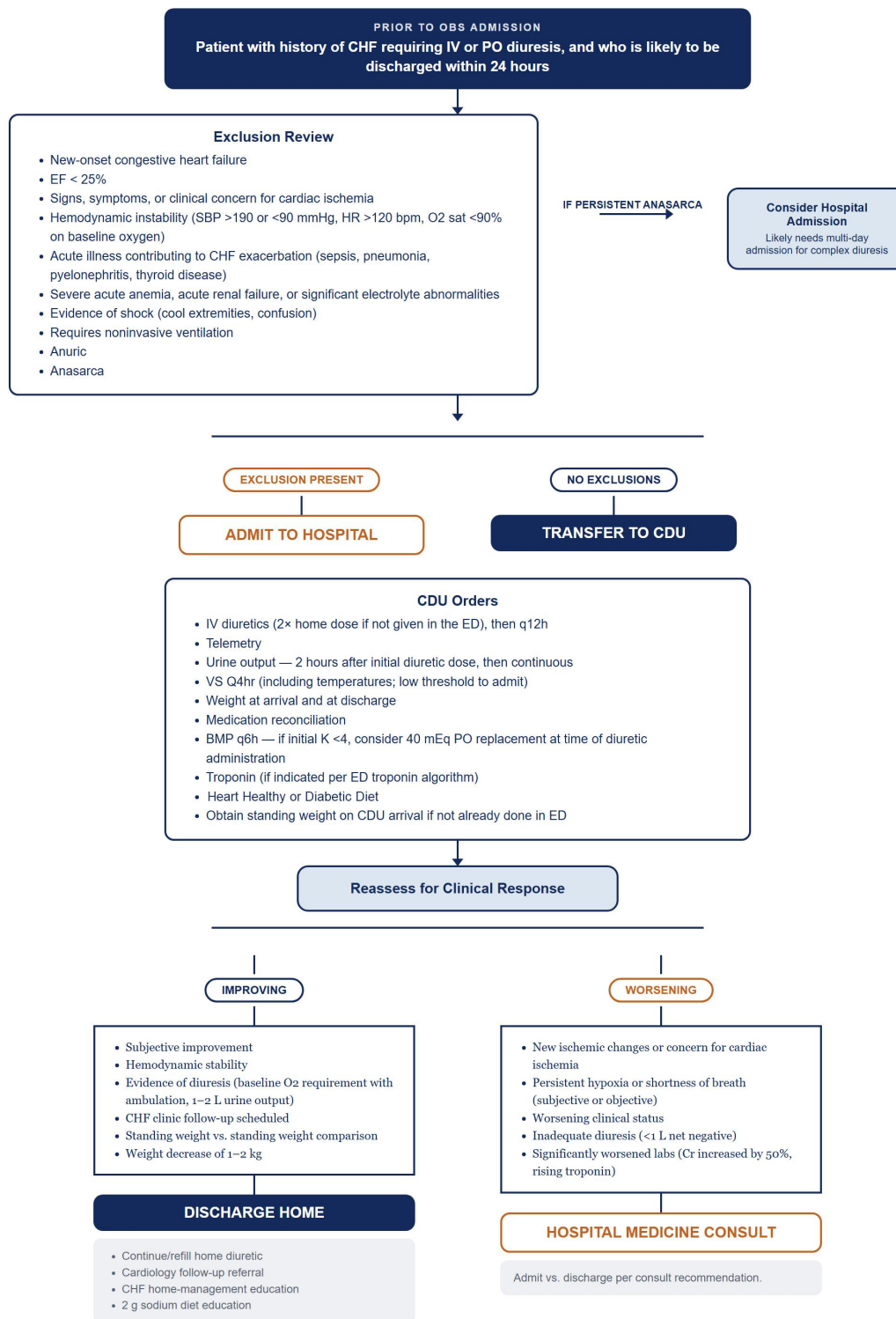
Epistaxis Protocol

Norton Clinical Decision Unit



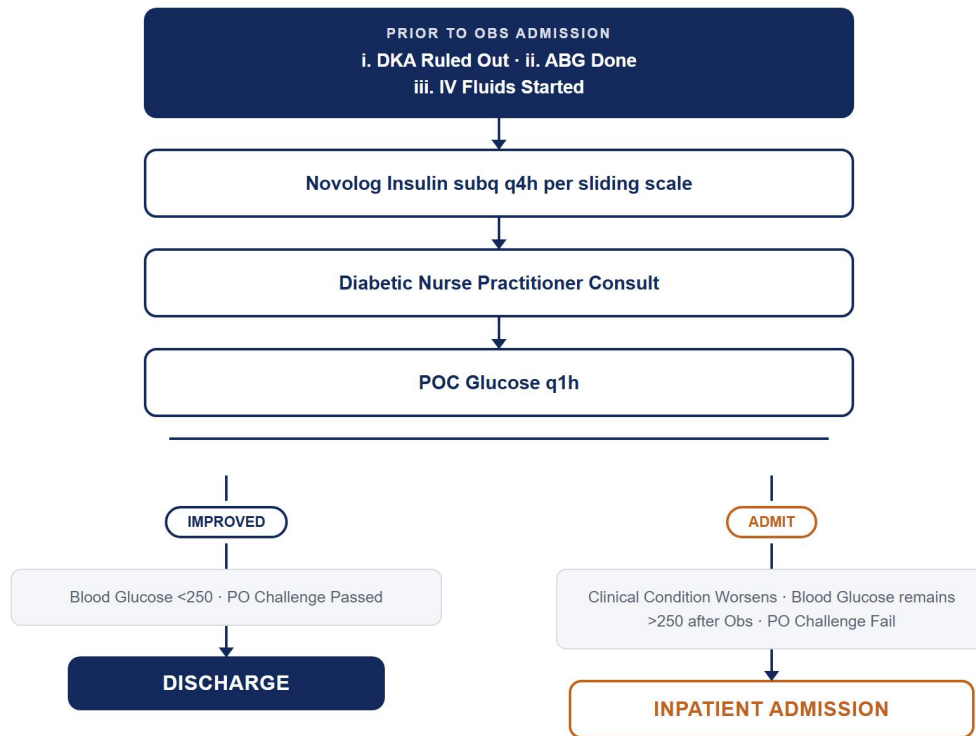
Heart Failure (CHF) Protocol

Norton Clinical Decision Unit



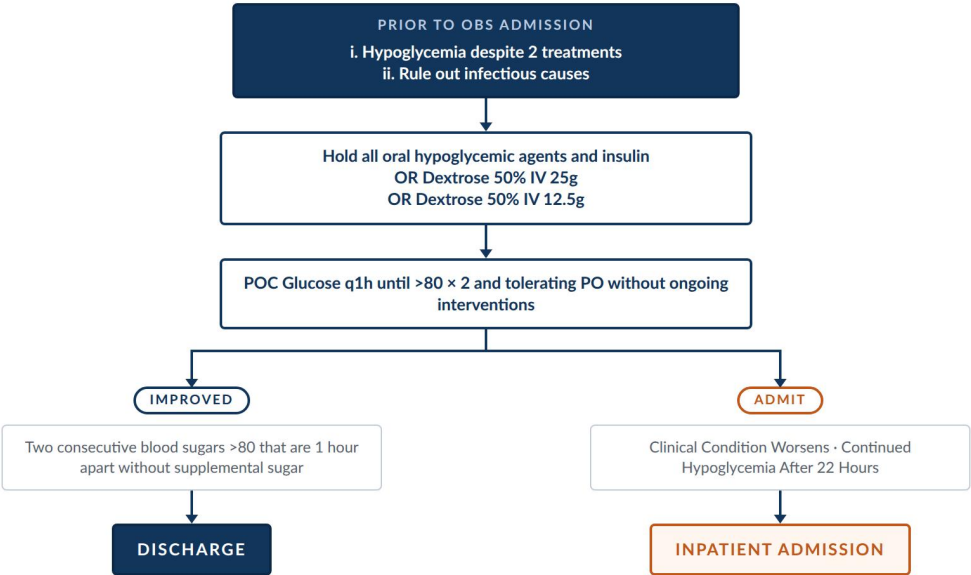
Hyperglycemia Protocol

Norton Clinical Decision Unit



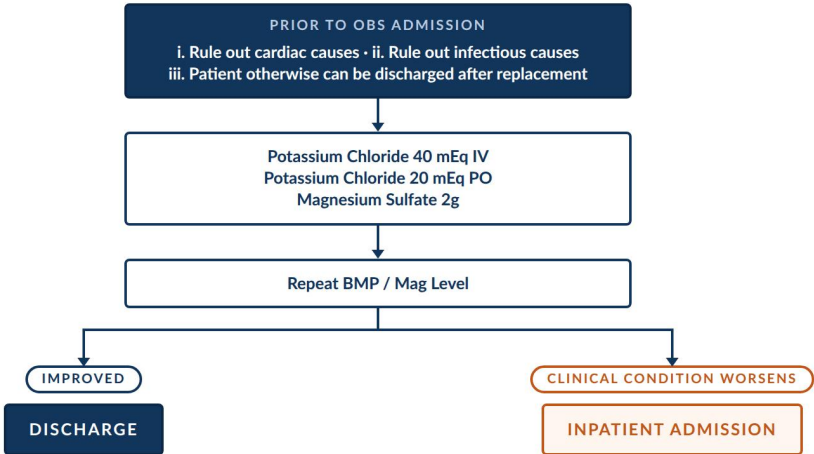
Hypoglycemia Protocol

Norton Clinical Decision Unit



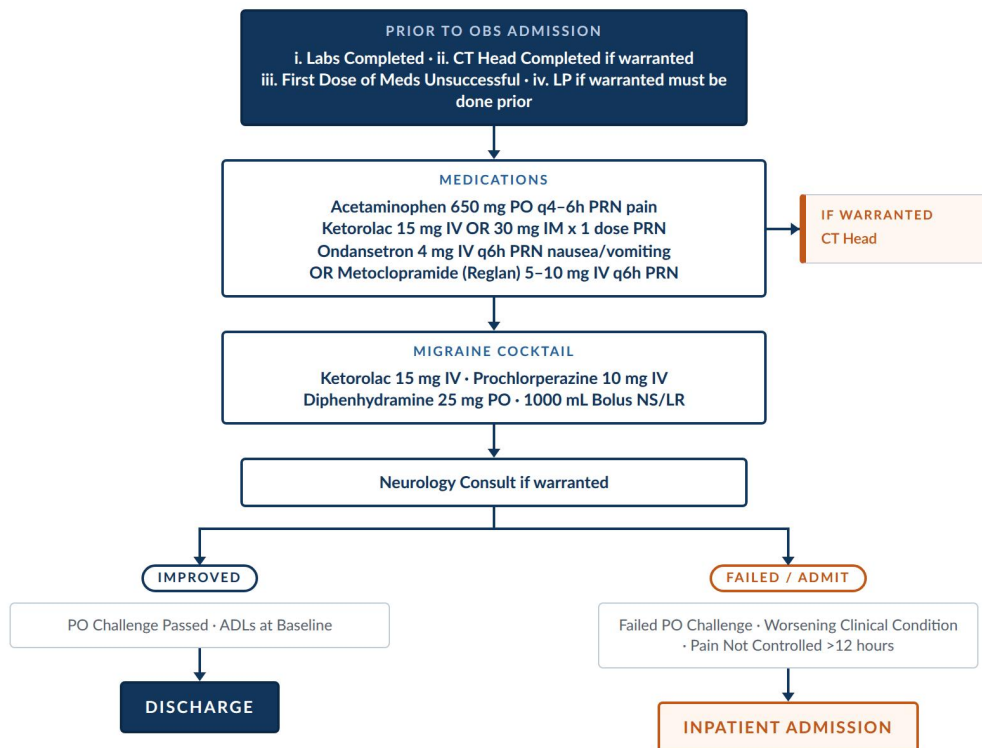
Hypokalemia Protocol

Norton Clinical Decision Unit



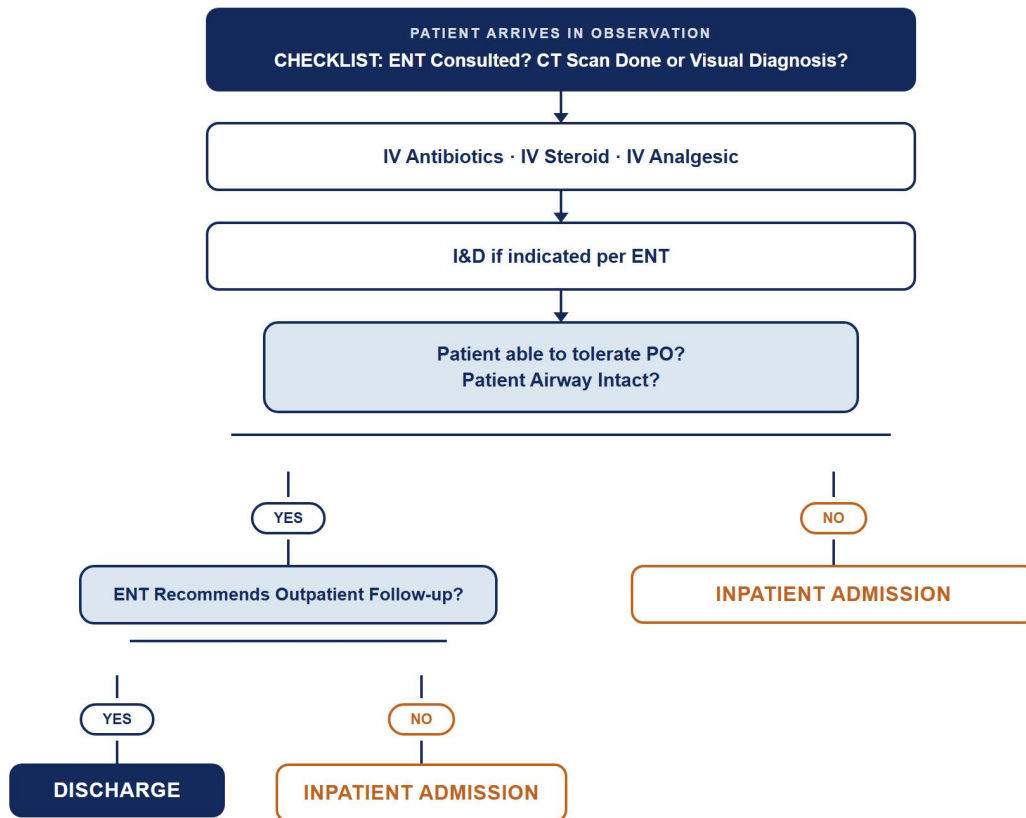
Intractable Headache Protocol

Norton Clinical Decision Unit



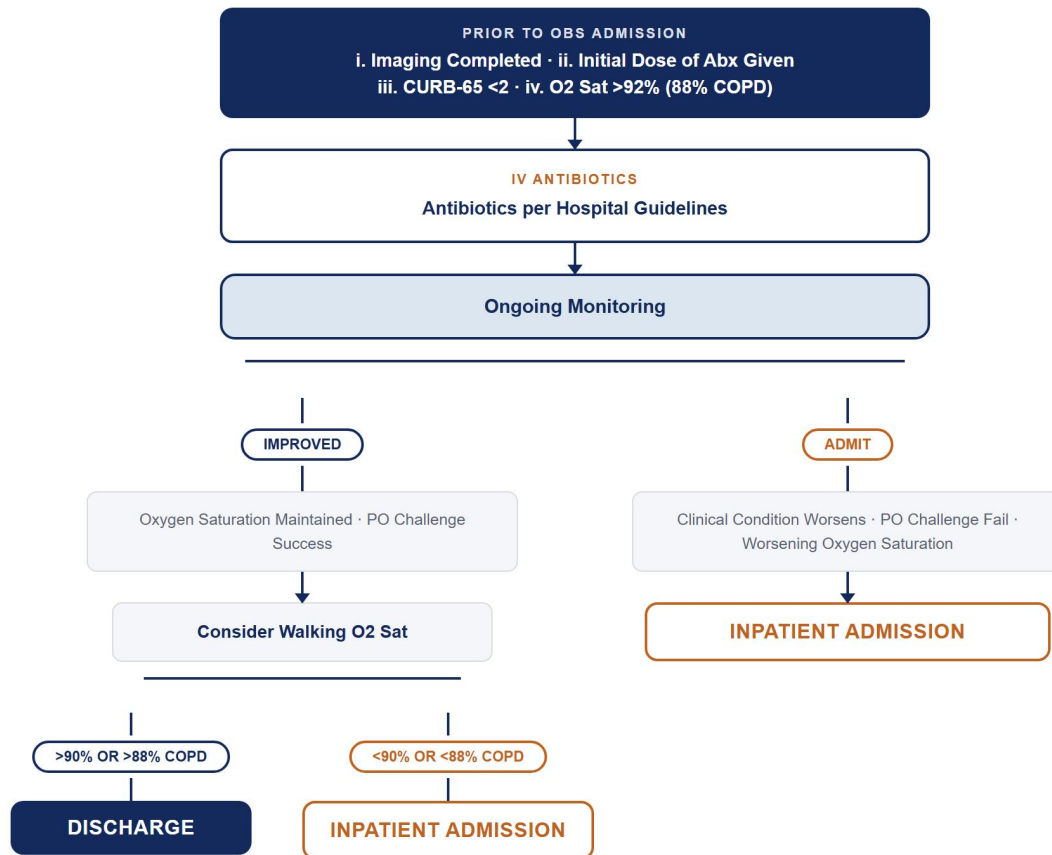
Peritonsillar Abscess Protocol

Norton Clinical Decision Unit



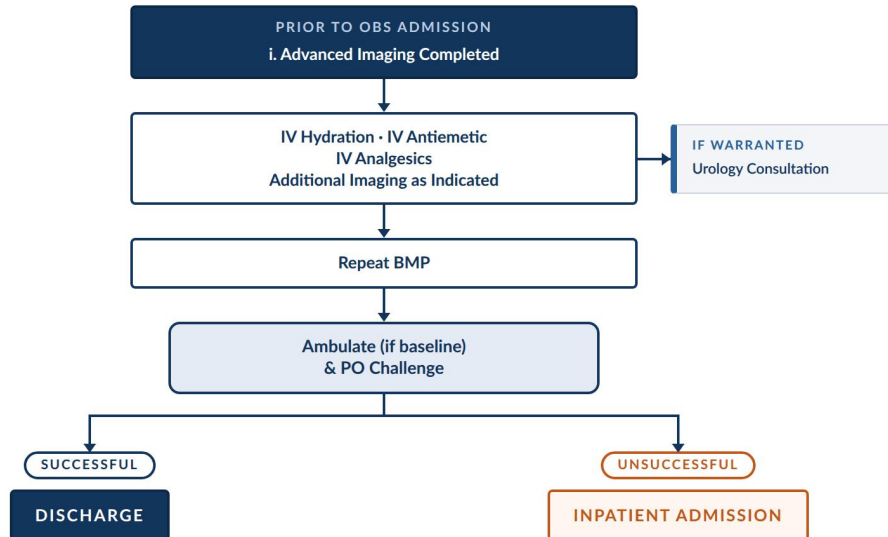
Pneumonia Protocol

Norton Clinical Decision Unit



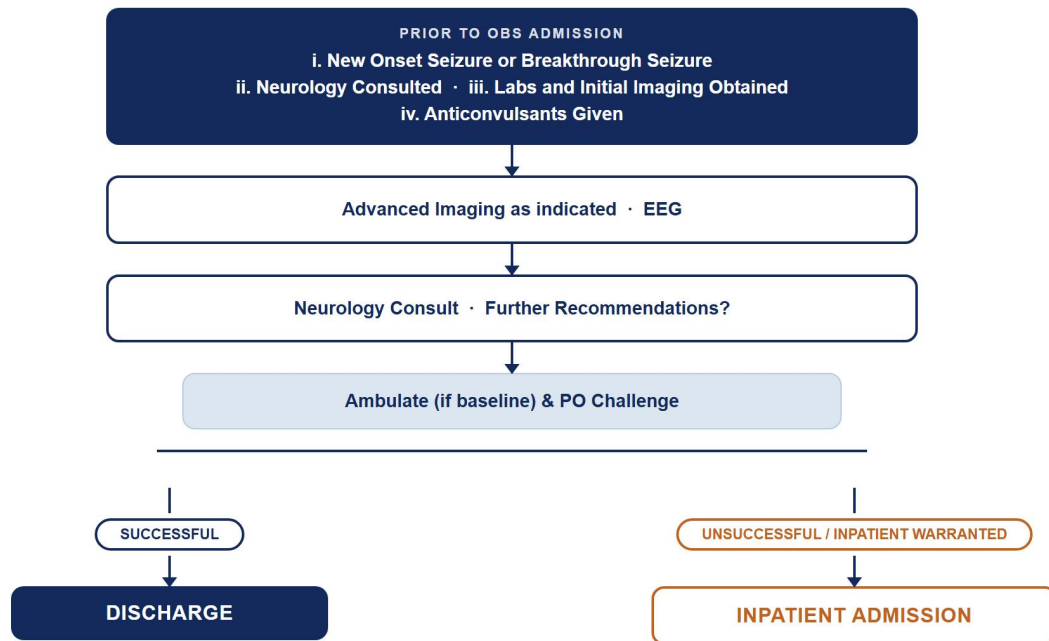
Renal Colic Protocol

Norton Clinical Decision Unit



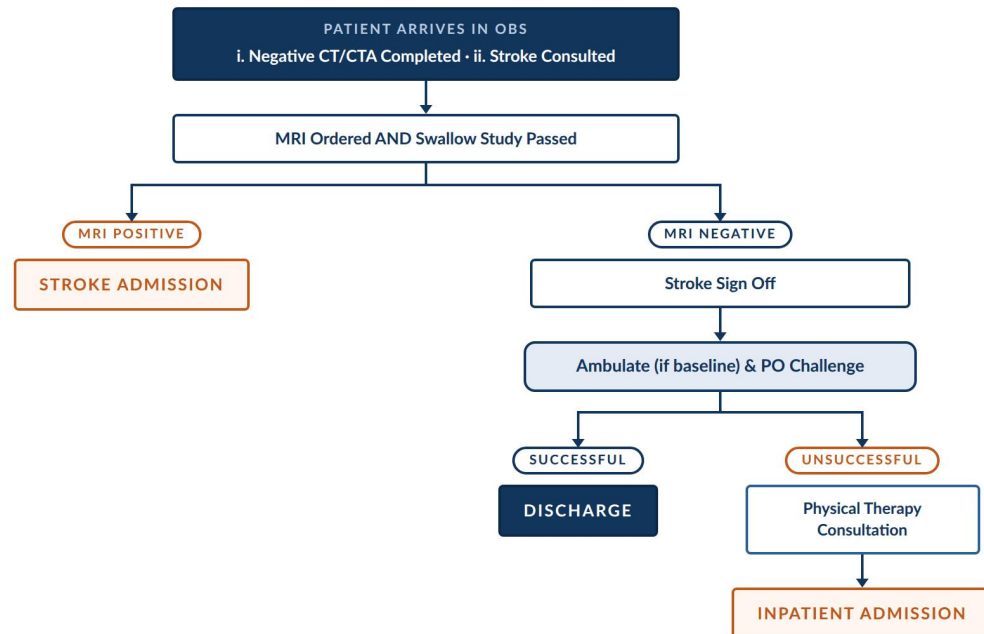
Seizure Protocol

Norton Clinical Decision Unit



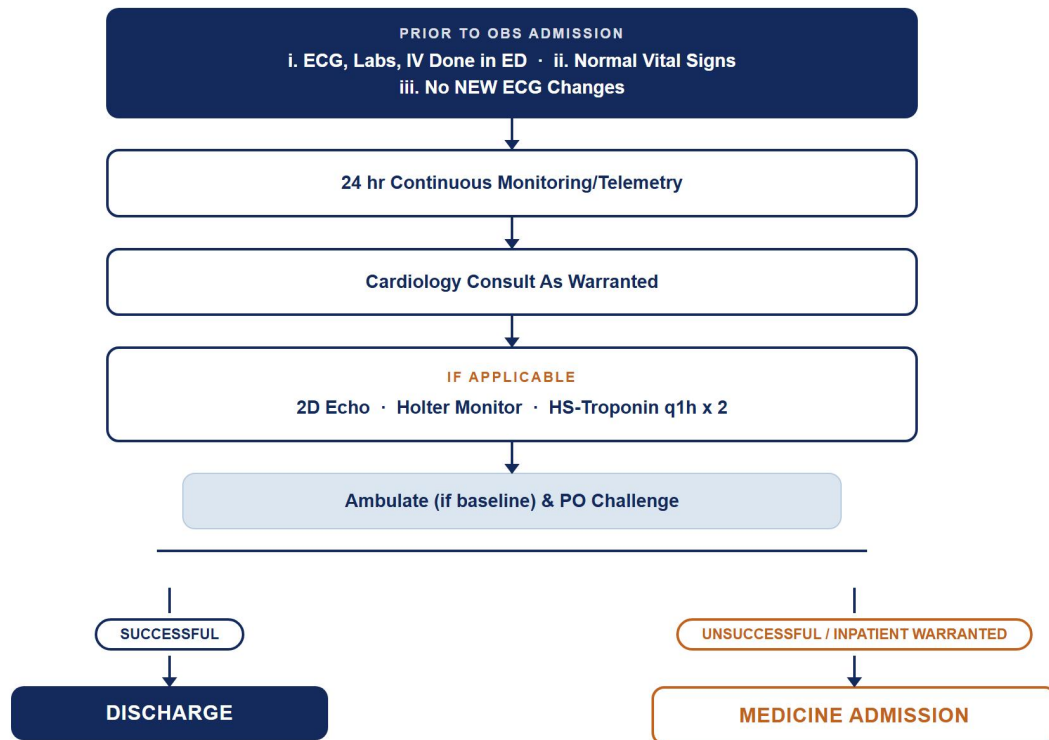
Stroke Rule Out / TIA Protocol

Norton Clinical Decision Unit



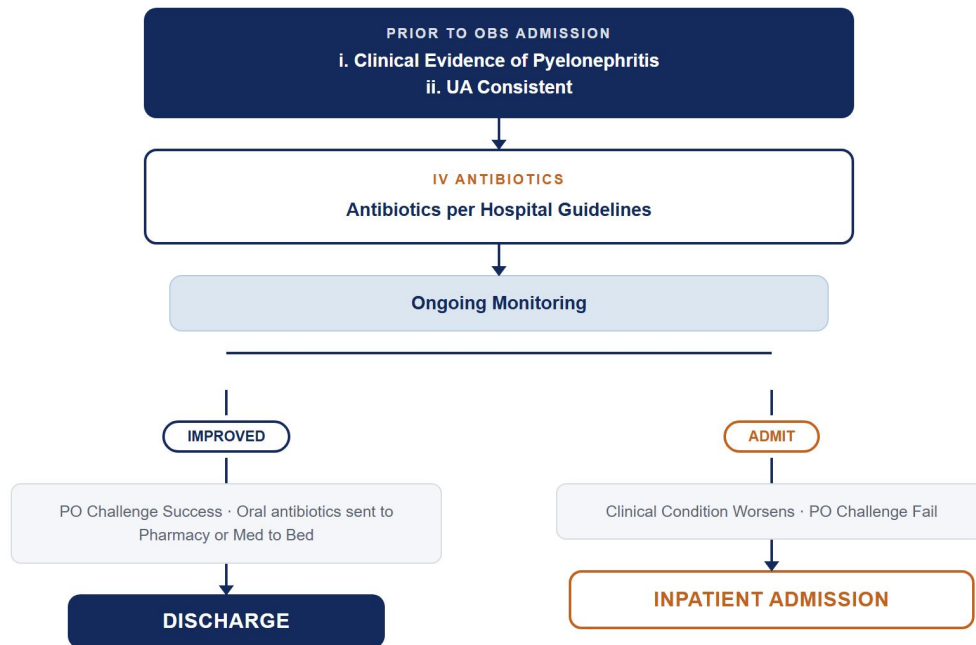
Syncope Protocol

Norton Clinical Decision Unit



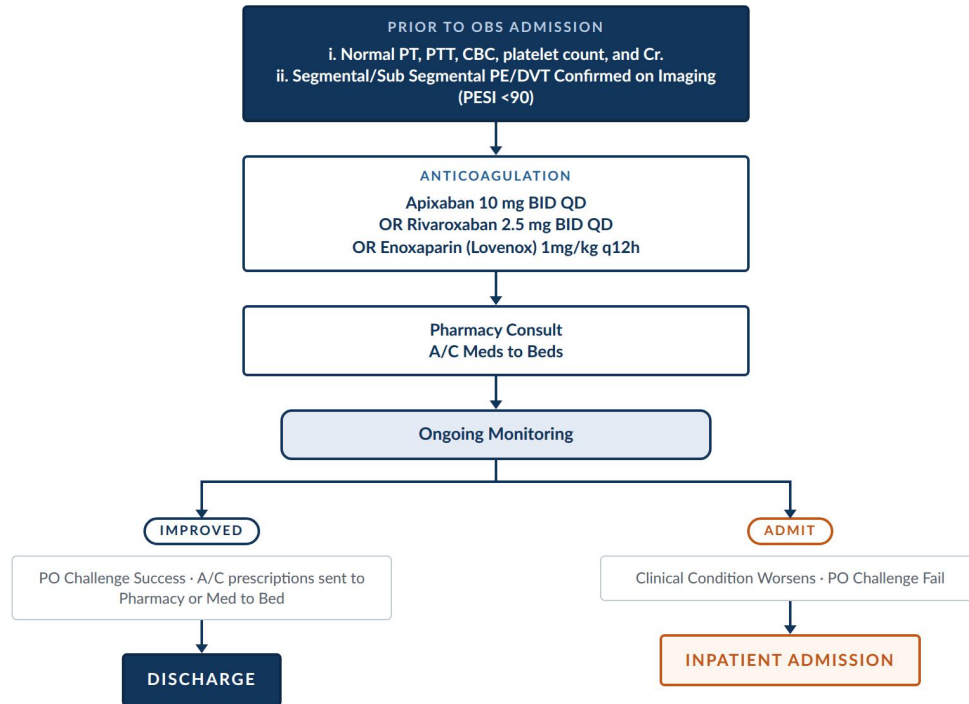
UTI / Pyelonephritis Protocol

Norton Clinical Decision Unit



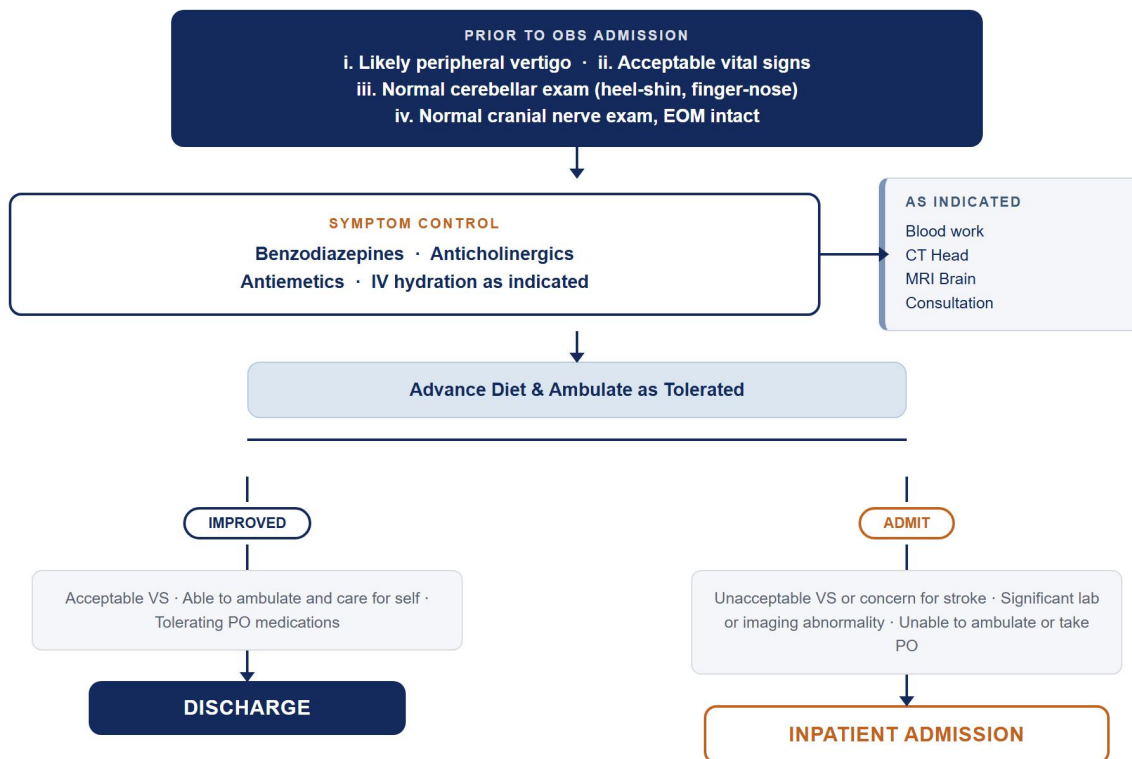
Venous Thromboembolism (VTE) Protocol

Norton Clinical Decision Unit



Vertigo Protocol

Norton Clinical Decision Unit



SUPPLEMENTAL MATERIALS

CMS Observation Services Policy Summary

Observation care is a well-defined set of specific, clinically appropriate services which include ongoing short-term treatment, assessment, and reassessment while a decision is made regarding whether patients will require further treatment as hospital inpatients or if they are able to be discharged. Observation services must be reasonable and necessary to be covered by Medicare. In only rare and exceptional cases do reasonable and necessary outpatient observation services span more than 48 hours.

Observation time begins at the clock time documented in the patient's medical record, coinciding with the time that observation care is initiated in accordance with a physician's order. The beneficiary must be in the care of a physician during the period of observation, as documented in the medical record. Medicare patients whose observation stay exceeds 24 hours must be provided the CMS MOON document.

ACEP Policy on Emergency Department Observation Services

The American College of Emergency Physicians (ACEP) supports the following principles for ED observation units: observation of appropriate ED patients in a dedicated ED observation area (rather than a general inpatient bed or acute care ED bed) is a best practice requiring commitment of staff and hospital resources. An emergency physician and emergency nurse should direct ED observation areas with clearly defined administrative responsibilities. Written policies should be approved by appropriate ED and hospital medical staff representatives and should address patient criteria for admission/discharge, physician clinical responsibility, staff roles and responsibilities, maximum length of stay, and mechanisms for quality monitoring.

Stress Test Selection — Cardiac Imaging

For chest pain patients, stress imaging options include:

- Non-stress imaging (coronary anatomy): Coronary CTA
- Stress imaging (ischemia/physiology): Combination of a stress modality (exercise, dobutamine, or vasodilator such as regadenoson/Lexi-scan) with an imaging modality (Echo, Nuclear SPECT, PET, or MRI)

Key considerations for test selection include: availability at Norton facilities, patient ability to exercise, BMI (>35: prefer PET), prior MI (prefer PET or DSE), gender and age (female <50: prefer DSE or ExE), renal function (CTA contraindicated with poor GFR or contrast allergy), asthma/COPD (prefer regadenoson over dipyridamole/persantine), and HEART score (<3: reconsider need for stress imaging).

DOCUMENT CONTROL

Field	Detail	Notes
Document Title	Norton CDU Operations Manual	
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Approved By	[Director of Observation Medicine]	[Date]

Department	Department of Emergency Medicine	
Distribution	All CDU Staff, ED Physicians, APPs	Restricted — Internal Use

