According to the Centers for Disease Prevention and Control, emergency department (ED) volumes have increased significantly over the past 10 years. From 1999 through 2009, the number of visits to EDs increased 32% (Hing and Bhuiya, 2012). This has led to overcrowding, and increased times for treatment/intervention by a provider. The growth in volumes, coupled with other throughput issues (boarding inpatients), has caused EDs to go on ambulance diversion—the inability to accept patients from the community.

Upper Chesapeake Medical Center (UCMC) is part of Upper Chesapeake Health (UCH), a not-for-profit community-based, two hospital system. UCMC is a 190-bed community hospital located in central Harford County, and serves all of Harford County, western Cecil County, and northern Baltimore County. UCH is dedicated to maintaining and improving the health of the people in its communities through an integrated health delivery system that provides high quality care to all.

In 2012, UCMC spent 933 hours on Red Alert. This alert, as defined by the Maryland Institute of Emergency Medical Services System (MEIMSS), indicates that there are no available cardiac monitored beds at a facility, and thus, causes ambulance diversion. Also, UCMC spent a total of 466 hours on Yellow Alert in 2012. Yellow alert is defined as a “temporary, unplanned, overwhelming overload” in the ED that requests ambulance diversion for a temporary period of time (MEIMSS, 2005). In response to these alerts, a multidisciplinary Capacity and Efficiency Steering Committee was established.

In addition to adding telemetry monitoring capability to existing beds, the opportunity for improvement was assessed organizationally. A decision was made to open a 10-bed Clinical Decision Unit (CDU). The Steering Committee noted that there was opportunity to improve throughput with patients in observation status. According to the Centers for Medicare and Medicaid Services, the volume of patients placed in observation status compared to those admitted as inpatients increased 34% from 2004 through 2011 (Feng, Wright, and Mor, 2012). UCMC had been placing these patients on general inpatient units. Opening a Clinical Decision Unit would allow the hospital to gain efficiencies with observation patients with designated quick turnaround diagnoses by utilizing nurse driven protocols to facilitate care. These evidence based protocols would improve safety, assure the appropriate use of resources, and improve throughput. An interdisciplinary CDU Workgroup was formed to address the following goals:

1) Decrease red and yellow alert hours;
2) Decrease length of stay for CDU observation patients;
3) Decrease time from bed request to arrival on unit;
4) Decrease left-without-being-seen metric; and,
5) Improve test turnaround time.
Process
The Clinical Decision Unit Order Set Workgroup was formed in October of 2012. Members of this newly formed workgroup include: the director of Emergency Medicine, the medical director of the Adult Hospitalist Program, the director and clinical nurse manager of the CDU, the order set coordinator, and members of Performance Improvement, nursing leadership, physician leadership, and Information Technology. An integrated team approach to performance improvement was utilized to facilitate the process. The medical director of the Adult Hospitalist Program and the director of Nursing for the CDU were co-leaders of the workgroup.

Prior to meeting, the participants received evidence based research regarding the management of observation patients. The group also received existing order sets to review from other facilities who had already successfully implemented a CDU (Baptist Health System, Heart of England NHS Foundation Trust, Brigham and Women’s Hospital, and University of Maryland Medical Center). The workgroup was tasked with developing a list of diagnoses that would be appropriate for the CDU, inclusion and exclusion criteria based on current evidence, and a timeline for adopting each new diagnosis.

Concurrently, there were logistical issues that were being addressed. The pediatric unit had to be relocated in order to make space for the additional adult beds that were going to be used for the CDU. The clinical nurse manager had to hire new team members to support the change in how the beds were going to be utilized. Telemetry monitoring capabilities were added to 27 beds. Nurses received education regarding telemetry management. IT and Nursing developed new documentation programs to reflect the standard of care for the CDU diagnoses, and to support the new order sets that were being developed.

When the CDU was opened in January of 2013, an additional CDU Workgroup was developed to include frontline staff and physicians so that all outcomes could be reviewed and any issues with the process could be addressed.

Solution
Key actions recommended by the team(s) included the following:

• Develop a list of appropriate diagnoses for CDU
• Develop and initiate one order set every two weeks, to include inclusion and exclusion criteria
• Change process for bed placement on CDU to expedite bed request to arrival on unit time
• Schedule consistent team members to staff CDU beds
• Assign a unit based hospitalist to CDU
• Streamline nursing documentation
• Improve diagnostic turnaround times

Over the course of nine months, the unit has developed 15 orders sets: Chest Pain (see CDU Attachment 1), Syncope, TIA, Hypoglycemia, Asthma, COPD, Cellulitis, Dehydration, Pneumonia, Anemia/Blood Transfusion, Deep Vein Thrombosis, Atrial Fibrillation, Migraine/Headache, Seizure, and Urinary Tract Infection.
These order sets were approved using an expedited process for rapid adoption by the CDU. The utilization of evidence based nurse driven protocols, and inclusion and exclusion criteria, has decreased the variability in care, while improving safety and facilitated throughput.

The CDU Workgroup identified the patient placement process as a barrier to expedite moving the patient to the unit in a timely manner. The CDU Workgroup collaborated with the ED and developed a plan in which bed requests would be called directly to the CDU rather than to the bed coordinator. This simple change removed three steps in the bed placement process, and proved to expedite care. The director of Emergency Medicine also initiated a new process, the “White Card,” (see CDU Attachment 2) that bypassed the nurse for bed request. This proved to remove almost 15 minutes from the process.

Nursing support services and Information Technology streamlined nursing documentation. Prior to the CDU, all observation patients received the same standard of care and documentation as inpatients. Since the goal was to decrease the overall stay of the CDU patient to less than 24 hours, the documentation was streamlined to focus assessments based upon patient diagnosis. The Nursing Status Board, a computerized documentation tool, was also used to provide visual cues for the time sensitive, rapid-fire care that was being delivered.

In order to facilitate care and make a clinical decision to admit or discharge, the provider must have diagnostic test results available in a timely manner. The CDU Workgroup collaborated with Clinical Services to help identify CDU patients, so that any tests would take priority over other observation patients and inpatients, with the exception of any exam ordered stat.

**Measurable Outcomes**

The total alert hours at UCMC decreased by 15% from January to September 2013, as compared to the baseline total hours in 2012. This has a direct impact on ambulance diversion. The majority of improvement was gained with yellow alert. However, the addition of 12 new CDU beds adjacent to the ED, planned for 2014, will have a direct effect on red alert hours, which is related to available telemetry beds.
There was definite opportunity to improve total length of stay for observation patients by creating the CDU. The total length of stay goal was to be less than 23 hours for all CDU patients. The average length of stay for CDU patients was 21.1 hours as of September of 2013. The average length of stay for all other observation patients who were not being cared for in the CDU was over 35 hours, in comparison.

Another goal was to decrease the time from bed request in the ED to arrival on the CDU. There was no CDU specific data for 2012; however, the overall average time from bed request to arrival on a unit for all patients was 81 minutes in 2012. In the CDU, the time was tracked both during the dayshift, when there is more transport support, and on evening shift. Both dayshift and nightshift arrival times were significantly better than those times tracked on the other inpatient units. The average time from bed request to arrival on unit was 62 minutes compared to 92 minutes for all other patients in 2013. This demonstrated an improvement of 33%, in comparison to data from January 2013 through September 2013, and a 23.5% improvement compared to 2012 metrics.
In addition to ambulance diversion, another important metric in assuring that we are able to treat our ED patients in a timely manner is Left-Without-Being-Seen (LWBS) data. In 2012, our overall LWBS data showed that 3.38% of registered ED patients left prior to being seen by a provider. By September of 2013, the overall LWBS rate was 1.74%, demonstrating a 48.5% improvement over 2012.
The final goal was to improve test turnaround times—specifically, cardiac and vascular diagnostics necessary to make a clinical decision. There was no specific data gathered in 2012, with the exception of that which was necessary to meet the regulatory standards (i.e. Studies performed within 24 hours of order; Final results within 48 hours of test). The goal was to complete the cardiac tests in less than or equal to three hours from the time the order was transcribed, and to complete vascular exams within four hours from the time the order was transcribed. Cardiac testing times improved by 66% from January 2013 through September 2013 to 2.45 hours, and vascular testing times improved by 57%, during the same time period, to 3.59 hours from transcription to testing. Though vascular reports were initially being tracked, the hospitalists agreed upon using the sonographers’ data to make a clinical decision. The goal for cardiac final reports was to be available for clinical decision making less than 10 hours from the time of the exam and less than 16 hours from the time the patient was placed in the CDU. Both of these goals were met by September 2013.

### Sustainability

The CDU Workgroup continues to meet on a monthly basis. All of the diagnoses have been implemented, and the unit continues to meet the initial average length of stay goal of less than 23 hours. The streamlined symptom-specific documentation performed in the CDU has the potential to be adopted by other nursing units caring for observation patients. As observation patients are monitored for length of stay, additional diagnoses may be added to the CDU order set library. There are current plans to move the CDU to an area adjacent to the ED. It will be a 12-bed unit that will have the same leadership oversight, with a continued reporting structure to the Capacity and Efficiency Steering Committee.

The Capacity and Efficiency Steering Committee continues to meet on a bi-weekly basis. This team is comprised of senior leadership, physician leadership, nursing leadership, and ancillary leadership. The Capacity and Efficiency Steering Committee has established 10 process action teams to address the following: ED Quality and Throughput, Inpatient Quality and Throughput, CDU Process Improvement, Ancillary Turnaround Times (Diagnostics), EVS Turnaround Times, IT Support, Case Management, and Peri-Operative Performance. The goal of all 10 workgroups is to increase efficiency by decreasing variability organizationally. (see Figure 1)
Role of Collaboration and Leadership

Establishing the Capacity and Efficiency Steering Committee was key in the ability to operationalize many of the safety and efficiency initiatives that were identified in the action plans of the above workgroups. The involvement of the CNO and COO, as well as physician leaders was essential in order to approve and secure necessary capital for additional telemetry systems, staff, and physical plant changes, as well as to drive process change. Each workgroup continues to report its outcome measures on a monthly basis.

The efficiency initiatives and outcomes were showcased to all stakeholders—from frontline team members to the Board of Directors. The Quality of Care Committee of the Board of Directors not only received ongoing reports, but was actively involved in planning and approving safety and efficiency initiatives.

A big part of the success included the frontline nurses and physicians who were actively involved in the CDU Workgroup. The team approach and involvement was essential in order to adopt a process that had nurses proactively driving the care and facilitating the throughput of the patients. The utilization of nurse driven protocols was a new concept for the nursing unit, and required much education, oversight, and motivation from the clinical nurse manager and director of nursing. As well, the ED physicians and hospitalists collaborated intensively throughout the process to develop the inclusion and exclusion criteria, and identify appropriate patients for placement on CDU.

Innovation

Initiating a new unit often challenged the CDU Workgroup to think outside of the box and come up with creative ideas to make change happen. One example of this was the rapid pace in which the CDU order sets needed to be distributed. The approval process through the Medical Executive Committee and the Pharmacy and Therapeutics Committee can usually be time consuming, and would have been a barrier to initiating a new order set every two weeks. A unique process was put in place by Information Technology and the CDU Order Set Workgroup, whereby the Chairs of the approval committees could review and approve the order sets virtually. This process functioned extremely well, enabling the group to distribute 10 new order sets in the first 22 weeks.

Another innovation was evident in the process of placing patients admitted with the diagnosis of Transient Ischemic Attack. UCMC is a certified Gold Plus Stroke Center. Part of the requirements for maintaining this certification includes a significant amount of ongoing education and training for the nurses caring for patients with a diagnosis of Stroke or TIA. The group decided that the nurse driven protocols that were being used on CDU could be adopted on the inpatient unit that routinely cares for neurology patients. The CDU Workgroup collaborated with 3 East Telemetry, the medical-surgical/neurology unit, to assure that the protocols could be initiated and that the patients could be identified as CDU by ancillary services.

Nurse driven protocols may be commonplace in ED settings, but are not nearly so on an inpatient unit. The CDU order sets require inpatient nurses to keep on top of consults, testing, and treatments to ensure that they are performed within specified time frames. Nurses decided that they would initiate a huddle at 18 hours from patient placement on the unit to discuss disposition
status with the attending physician or mid-level provider. This proactive communication and planning has helped in the development of the nurses’ level of autonomy, and in the ability to provide consistent quality care to each patient.

**Related Tools and Resources**

- Chest Pain Order Set (CDU Attachment 1)
- White Card - Emergency Room Physician Generated Bed Request (CDU Attachment 2)
- Team Member Education Packet (CDU Attachment 3)
- Chest Pain Time-Based Nursing Worksheets (CDU Attachment 4)

Submitted by: Karen Hensley, BSN, RN, CPN, Unit Director
Lori Wilson, MA, BSN, RN, AVP Patient Services

Contact: Judi Webster, RN, BSN
Title: PSO/PI Manager
Email: jwebster@uchs.org
Phone: 443-843-5627
Open box equals Prescriber’s option; must check to order. Checked boxes = automatically initiated unless unchecked.

Date: _______________________   Time: _______________

Inclusion/Exclusion Criteria

Inclusion
- Chest pain or chest pain equivalent
- EKG: normal or unchanged from previous EKG
- Initial cardiac enzymes normal
- Clinically stable
- Low index of suspicion for acute myocardial infarction (MI)
- High likelihood that patient can be discharged within 24 hours (consider functional status, social variables)

Exclusion
- Elevated cardiac enzymes (except renal failure patient with elevated troponin and normal CK-MB)
- EKG evidence of acute MI
- New EKG changes compared to previous EKG
- Unstable vital signs
- Unstable angina, crescendo angina
- Significant dysrhythmias
- Clinical evidence decompensated left-sided congestive heart failure (CHF)

Orders

Admission Status
☑ Place in Observation Status

Bed Type
☑ CDU- 1 West

Attending: ____________________________

Cardiac Monitoring
☑ Cardiac Monitoring, continuous times 24 hours
☑ Off Cardiac Monitor for testing/transport
☑ Notify provider for change in rhythm or ST segment deviation from baseline (ST segment monitoring may be omitted from 100% paced rhythms)

Authorized Prescriber Signature: ______________________             Date/Time:___________________________

Form #: 71PCHEST  08/13   Printed on: December 20, 2013   (for verbal/telephone orders)
Place patient label here

Activity
☑ Activity as tolerated

Diet
☐ Carbohydrate Controlled _________ calories; no caffeine; ☐ NPO prior to stress test
☐ Low fat / low cholesterol; no caffeine; ☐ NPO prior to stress test

Laboratory
☑ Lipid panel fasting in AM
☐ BMP in AM

Repeat Cardiac Biomarkers at 6 hours after initial set drawn:
☑ Creatine Kinase, MB isoenzyme (CK-MB) repeat at 6 hours after initial set drawn
☑ Troponin-I repeat at 6 hours after initial set drawn

Imaging and Diagnostic Tests
☑ 12-lead EKG repeat at 6 hours after initial test
☑ 12-lead EKG in AM and as needed for chest pain; every 30 minutes times 2 for ongoing chest pain, then as directed by prescriber
☐ CVUS Echo Complete (CDU Urgent Priority) Reason: chest pain

Stress Test (Provider: if ordering a stress test, must also select Parameters order)
☑ Parameters for Stress Test: Patient stable, without serial EKG changes, and negative cardiac enzymes; potassium needs to be between 3.7 and 5.2; if on beta blocker, med held for 12 hrs prior to stress test (Nurse Instruction: Review most recent potassium level and if less than 3.7 or greater than 5.2 AND if no repeat potassium level is ordered, contact provider to obtain a medical intervention, if indicated and/or repeat potassium level order 1.5 hours from time of medical intervention)

Stress test to be read by:
☐ on-call cardiologist
☐ by cardiologist Dr. __________________________

☐ Exercise EKG test (Treadmill, Regular stress test) (CDU Urgent Priority); if pt takes beta blocker, HOLD beta blocker 12 hrs prior to stress test Evidence

☐ Nuclear treadmill (CDU Urgent Priority) ; if pt takes beta blocker, HOLD beta blocker 12 hrs prior to stress test

☐ Lexiscan Stress Test (CDU Urgent Priority)

Respiratory
☑ Oxygen Order _______L/min per nasal cannula times 24 hrs and PRN chest pain
☑ Follow oxygen therapy protocol

Authorized Prescriber Signature: ______________________  Date/Time:___________________________
Form #: 71PCHEST 08/13 Printed on: December 20, 2013 (for verbal/telephone orders)
Nursing Interventions
☑ Vital signs every 4 hours and as needed
☑ Pulse oximetry every 4 hours and as needed
☑ Reinforce Observation Status with patient including anticipated length of stay less than 23 hours
☑ Ask patient for transportation plan once discharged and document
[Transportation Arranged Y/N, Name of Transport Person and their Phone Number(s)]

Discharge Planning
☑ Nurse: Notify provider at 18 hours post admission for decision to Discharge (obtain discharge order) or Admit as Inpatient

IV Fluids
☑ Medlock

Medications
Antiplatelet Agents
☑ aspirin 81 mg chewable tab 3 tablet orally now (unless allergy to ASA) IF NOT GIVEN IN ED, then 2 tabs every AM (THIS ORDER SUPERSEDES ANY OTHER ASA ORDER CONTINUED FROM HOME REGIMEN)
☐ clopidogrel (PLAVIX) 75 milligram orally once a day MAINTENANCE DOSE

Chest Pain Relievers
☑ nitroglycerin 0.4 mg sublingual tablet every 5 minutes PRN chest pain times 3; notify prescriber if no relief; hold for SPB less than 100 and consult prescriber
☐ ketorolac (TORADOL) ☐ 15mg OR ☐ 30mg IV every 6 hrs, PRN mod pain
(pain scale 5-7)(If 65 or older or less than 50kg or elevated serum creatinine, do NOT exceed dose of 15mg every 6hrs and max daily dose of 60mg)
☐ oxyCODONE 5 mg with acetaminophen 325 mg (PERCOCET) 1 tab every 4 hrs, PRN severe pain
(pain scale: 8-10)

GI cause suspected
☐ famotidine (PEPCID) 20 milligram orally 2 times a day
☐ famotidine (PEPCID) 20 milligram orally once a day (if creatinine clearance less than 50 milliliters/minute)

Other Medications
☐ acetaminophen 650 milligram orally every 4 hours PRN fever or mild pain,
[pain score 1-4] (MAXIMUM ACETAMINOPHEN DOSE 4 GRAMS/DAY)
☐ aluminum hydroxide-magnesium hydroxide (MAALOX) 30 milliliter orally 4 times a day PRN indigestion
☐ ondansetron (ZOFRAN) ODT 8 mg PO every 6 hrs PRN, nausea

Authorized Prescriber Signature: ______________________             Date/Time:___________________________
Form #: 71PCHEST 08/13 Printed on: December 20, 2013 (for verbal/telephone orders)
VTE Prophylaxis

☐ Patient VTE Risk Level: Low Risk  (see Risk Factors reference on back)

Prophylaxis Orders:  ☐ Activity, Early Ambulation
☐ Other: ___________________

******************************************************************************

☐ Patient VTE Risk Level: Moderate/High Risk  (see Risk Factors reference on back)

Instructions:  SELECT CHEMICAL Prophylaxis order unless contraindicated. [ IF chemical contraindication exists, select reason in Table 1 (required) then select MECHANICAL Prophylaxis order (IF mechanical contraindication ALSO exists, select reason in Table 2 (required)]

Chemical Prophylaxis Orders:  Evidence

☐ enoxaparin (Lovenox)  ☐ 40 mg (CrCl 30 or greater) or ☐ 30 mg (CrCl 10-29) subcutaneous daily; first dose on day of admission and continue daily (therapeutic interchange by pharmacy to heparin 5000 units SQ every 8 hrs IF creatinine clearance is less than 10 mL/min or if dialysis patient)

☐ heparin 5000 UNITS subcutaneous every 8 hours (Consider for CrCl less than 10 mL/min or if dialysis patient or if neuraxial anesthesia patient)

☐ fondaparinux (Arixtra) 2.5 mg subcutaneous DAILY; first dose on day of admission and continue daily (do not use if CrCl less than 30 or weight less than 50 kg) (Consider if porcine allergy or avoidance of pork products)

☐ Other chemical prophylaxis: ___________________

☑ CBC with AUTO DIFF EVERY 2 DAYS (if chemical prophylaxis is ordered)

☐ AVOID Chemical VTE Prophylaxis

Prescriber MUST select a contraindication to Chemical Prophylaxis from Table 1. (If a specific contraindication is not listed, select the most similar.) Mechanical VTE prophylaxis should be ordered instead unless contraindicated, with conversion to chemical VTE prophylaxis as soon as possible

<table>
<thead>
<tr>
<th>Table 1: Contraindication to Chemical VTE Prophylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Patient Refusal</td>
</tr>
<tr>
<td>☐ History of Heparin Induced Thrombocytopenia (HIT)</td>
</tr>
<tr>
<td>☐ Hemorrhagic Stroke</td>
</tr>
<tr>
<td>☐ Increased Risk of Bleed (including actively bleeding patients, patients therapeutically anticoagulated and those with supratherapeutic INR, hemorrhage, craniotomy or intraocular surgery within 2 weeks, spinal tap or EPIDURAL ANESTHESIA WITHIN 12 hrs)</td>
</tr>
</tbody>
</table>

Authorized Prescriber Signature: ______________________       Date/Time: _____________________________

Form #: 71PCHEST 08/13   Printed on: December 20, 2013 (for verbal/telephone orders)
Disposition Criteria:

HOME:
- Negative cardiac enzymes with low clinical suspicion for ischemic symptoms AND normal stress test (if performed) -OR-
- Clinically stable AND chest pain is not judged to be of cardiac origin

ADMIT TO HOSPITAL AS INPATIENT if ANY of these criteria are met:
- Troponins or CK-MB turn positive
- Development of CHF
- Significant arrhythmias
- Stress test suggestive of reversible ischemia
- Detection of Second or Third degree heart block

Authorized Prescriber Signature: ______________________             Date/Time:___________________________
Form #:  71PCHEST   08/13         Printed on: December 20, 2013            (for verbal/telephone orders)
<table>
<thead>
<tr>
<th>Admission Request</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Name:</strong></td>
</tr>
<tr>
<td><strong>Attending:</strong></td>
</tr>
<tr>
<td><strong>Bed Type:</strong></td>
</tr>
<tr>
<td>ICU</td>
</tr>
<tr>
<td>IMC</td>
</tr>
<tr>
<td>Cardiac Tele (CPU/3 East Tele) – Dx :CP, CVA/TIA, syncope</td>
</tr>
<tr>
<td>Med Surgical w/ Tele</td>
</tr>
<tr>
<td>Med Surgical w/o Tele</td>
</tr>
<tr>
<td>CDU – Dx: dehydration, asthma, CP, syncope, A-fib rate control, COPD</td>
</tr>
<tr>
<td><strong>Bed Status:</strong></td>
</tr>
<tr>
<td><strong>Diagnosis:</strong></td>
</tr>
<tr>
<td>Patient Oriented</td>
</tr>
<tr>
<td>Prisoner Y/N</td>
</tr>
</tbody>
</table>
What is a Clinical Decision Unit?
The Clinical Decision Unit is an adult outpatient nursing unit at Upper Chesapeake Medical Center which provides observation services. The CDU provides services to adult patients who require care that goes beyond their initial evaluation and management in the UCMC Emergency Department. The goal of the CDU is to provide an area for extended observation in order to determine the need for inpatient admission. Patients may be admitted to the CDU if they meet very specific criteria. The goal is to have the patient’s disposition (admit or discharge) at 18 hours from CDU arrival.

What does this mean to me?
Initially, 10 beds on 1 West (107 – 115-2) will be dedicated as CDU beds and initially, 2 RNs and 1 PCT will be assigned to the CDU. Patient turnaround will be faster than usual. Communication with physicians, 1 West Charge, AC and ED will be timely and collaborative. Documentation will be streamlined. Initially, the CDU patients will all have symptoms of either Chest Pain or Syncope. More beds and other symptoms, with specific orders, will be added to the CDU as time goes by.
Clinical Decision Unit Nursing Reminders

Time is of the essence!
- Move quickly
  - CDU patients’ length of stay should be less than 23 hours
- Follow up with orders, labs, consults, tests, etc.
  - Some labs/test must be repeated within so many hours of the initial set/test
  - Labs and tests should be done with “CDU Priority”
- Be aware of HPA…hours past admission
  - Consults must see patients by 14 hours past admission
  - Call the Provider for a huddle about patient disposition at 18 hours past admission

Documentation
- Use CDU symptom specific Standard of Care
- No Plan of Care needed for CDU patients
- Document arrival/departure time for all CDU patients
  - Admission
  - Discharge
  - Off unit for testing
  - Back to unit from testing
- Use nursing notes to document progress towards disposition including 18 hour huddle with Provider

Assessments
- Follow Provider orders from CDU symptom specific protocol
  - Initial focused assessments
  - Q4H focused assessments
  - Vitals may be Q4H or Q8H
- Hourly rounding
- Bedside Report

Communication
- The ED will call the RN directly for bed placement
- When following up with lab, tests, consults, etc. remind them of CDU Priority
- US will inform consulting MD of 14 hour post admission time
- Keep 1 West Charge RN up to date regarding disposition of patients
- Charge RN will inform AC of admissions needed bed placement
Clinical Decision Unit PCT Reminders

Time is of the essence!

- Move quickly
  - CDU patients’ length of stay should be less than 23 hours
- If transport is not available, find the time to take the patient to their test
  - Patient should be removed from telemetry for testing
- Certain tests will be delayed if the patient has had caffeine
  - NO caffeine if admitted for Chest Pain or Syncope

Documentation

- Use CDU symptom specific Standard of Care
- Document arrival/departure time for all CDU patients (coordinate with RN)
  - Admission
  - Discharge
  - Off unit for testing
  - Back to unit from testing

Assessments

- Follow Provider orders from CDU symptom specific protocol
  - Vitals may be Q4H or Q8H
- Hourly rounding
- Bedside Report

Clinical Decision Unit US Reminders

Time is of the essence!

- Move quickly
  - CDU patients’ length of stay should be less than 23 hours

Documentation/Orders

- Use CDU symptom specific Standard of Care
- All orders for tests, consults, labs etc. should be entered with CDU Priority
- Consulting providers must see patient within 14 hours of admission to the CDU
  - Calculate the 14 hours post admission time
  - Provide it to the consulting MD or answering service either by phone or in the comment section of the order
Welcome to Amanda, RN. Amanda is a new grad and has started orientation in preparation for day shift later this year.

3 PRN RNs have started their orientation also. Please get to know Ailyn and Philomina, PRNs who will work both day or night shift and Laura for day shift PRN.

**CDU UPDATE:**

<table>
<thead>
<tr>
<th></th>
<th>Feb 19.88</th>
<th>Mar 18.99</th>
<th>April 18.71</th>
<th>May 21.70</th>
<th>June 20.60</th>
<th>July 20.66</th>
<th>August 22.18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Length of Stay</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>5.3</td>
<td>2.5</td>
<td>2.5</td>
<td>4.02</td>
<td>3.90</td>
<td>3.06</td>
<td>5.68</td>
</tr>
<tr>
<td><strong>% convert to admission</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Time from decision to observe to arrival on unit</strong></td>
<td>Am/pm 57/89</td>
<td>Am/pm 60/69</td>
<td>Am/pm 56/90</td>
<td>Am/pm 45/69</td>
<td>Am/p 42/63</td>
<td>Am/p 47/61</td>
<td>Am/pm 50/67</td>
</tr>
</tbody>
</table>

Plans continue with the CDU move and the goal is around January if not before. I have the building plan hanging in my office if you wish to see the layout. Colors have been selected for the unit.
Clinical Decision Unit: Chest Pain Protocol

<table>
<thead>
<tr>
<th>On Every Patient (Provider may elect to de-select this order)</th>
<th>If Provider ordered</th>
<th>Notify Provider for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place in Observation Status</td>
<td>NPO/no caffeine for stress test</td>
<td>Change in rhythm</td>
</tr>
<tr>
<td>Cardiac Monitoring, continuous x24 hrs</td>
<td>Echocardiogram</td>
<td>ST segment deviation from baseline</td>
</tr>
<tr>
<td>Can come off monitor for transport/testing</td>
<td>Stress Test (review potassium)</td>
<td>If Stress Test ordered and potassium is low or high</td>
</tr>
<tr>
<td>Activity as tolerated</td>
<td></td>
<td>If ordered consults have not seen patient by 14 hours</td>
</tr>
<tr>
<td>No caffeine</td>
<td></td>
<td>Patient disposition at 18 hr post admit</td>
</tr>
<tr>
<td>Labs in AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Troponin-I 6 hours after initial set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 lead EKG 6 hours after initial test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 lead EKG in AM and</td>
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<tr>
<td>12 lead EKG q30min x2 for ongoing Chest Pain</td>
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<tr>
<td>Oxygen via NC per order x24hrs</td>
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<tr>
<td>VS with pulse ox q4h and PRN</td>
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<tr>
<td>Reinforce OBS status with patient</td>
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<tr>
<td>Ask patient who will be available to take them home</td>
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<tr>
<td>Medlock IV</td>
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Admission Time

| Admission screens:                                             | CV Assess Vitals     | CV Assess Vitals     | CV Assess Vitals     | CV Assess Vitals     | 18 Hour Huddle for disposition Note |
|                                                               |                      |                      |                      |                      | Disposition Note                  |
| • Admission general info                                       |                      |                      |                      |                      | If Admit: IV monitoring Morse Falls Education Note |
| • Medication Reconciliation                                   |                      |                      |                      |                      | If Discharge: Discharge screen Note |
| • Cardiovascular assessment (CV assess)                       |                      |                      |                      |                      |                                 |
| • IV monitoring                                                |                      |                      |                      |                      |                                 |
| • Morse Fall                                                   |                      |                      |                      |                      |                                 |
| • CDU assess                                                   |                      |                      |                      |                      |                                 |
| • Education                                                   |                      |                      |                      |                      |                                 |
| Put on monitor                                                |                      |                      |                      |                      |                                 |
| Labs 6 hr after initial                                       |                      |                      |                      |                      |                                 |
| 12 lead EKG 6 hr after initial                                |                      |                      |                      |                      |                                 |
| Note                                                          |                      |                      |                      |                      |                                 |

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<thead>
<tr>
<th>Admission Time</th>
<th>4 hours from admit</th>
<th>8 hours from admit</th>
<th>12 hours from admit</th>
<th>16 hours from admit</th>
<th>18 hours from admit</th>
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<tr>
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