TITLE: CENTRALIZED TELEMETRY MONITORING OF PATIENTS (CTM) (ctm01)

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ISSUED FOR: Nursing

RESPONSIBILITY:

Nurses on units that have remote telemetry capability and Responder Nurses on Cardiac Acute Care (CAC)

PURPOSE:

To facilitate appropriate and timely utilization of centralized telemetry monitoring units for patients with non-cardiac primary diagnoses.

KNOWLEDGE BASE:

Patients with telemetry orders will be placed on the appropriate acute care units as determined by the hospital's admission criteria, patient's condition, and diagnosis.

EXCEPTIONS:

Patients with any of the following conditions or medical needs will be placed on Cardiac Telemetry or a critical care unit:

- EKG changes consistent with acute MI
- Abnormal EKG changes
- Positive cardiac enzymes
  - a. A positive troponin is greater than 0.05 ng/mL when run via lab or greater than 0.08 ng/mL when run via iStat (all troponins in ECC will be run via iStat).
  - b. If the patient develops a positive troponin, there should be a collaboration between nursing and the physician regarding the patient and if there is a need to be transferred to cardiac telemetry/critical care.
  - c. Patients who have troponin levels that are trending downward may be transferred from cardiac telemetry or critical care at the discretion of the attending physician.
- Acute unstable or potentially unstable arrhythmias, including but not limited to: new onset atrial fibrillation or flutter, SVT, 5 or more PVC's in a row, new onset tachycardia or bradycardia varying more than 20 beats per minute from patient's baseline, second or third degree heart block, pauses.
- Patients who have received a new permanent pacemaker/ ICD within the past 24 hours
- IV vasoactive medications that may be only administered in critical care/cardiac units (refer to nursing policy 126.155).
DEFINITIONS: Centralized Telemetry Monitoring (CTM) is the use of telemetry on non-cardiac units with viewing of heart rhythms occurring at a centralized monitoring station by a Certified Monitor Technicians (CMT).

Responder Nurse is a Registered Nurse from Cardiac Acute Care who will respond to the patient’s bedside in the event of a life threatening emergency and will assist the nursing staff with evaluation and emergency treatment. The Responder Nurse acts as a cardiac care resource to the primary nurse, discusses care with the MD as necessary, and addresses the need for continuous telemetry.

Default HR Parameters Settings: Lower limit setting is 50 beats per minute and upper limit setting is 120 beats per minute.

PROCEDURE:

1. INITIATION OF MONITORING: A physician’s order is required to initiate/discontinue monitoring.
   a. When an order is entered for centralized telemetry into the EMR, the order prints out automatically in the Centralized Telemetry Room.
   b. The receiving unit is responsible for notifying the Centralized Telemetry Room that the patient has arrived.
   c. Upon notification the responder nurse for CTM will be dispatched by the CTM HUC to place the patient on centralized telemetry.
   d. The CTM HUC will complete the Centralized Telemetry Rhythm worksheet.
   e. The CTM Responder nurse will use an Easy ID label to label the telemetry pack. The CTM Responder nurse will verify that the worksheet information and the Easy ID Label are the same.
   f. The CTM Responder Nurse and the bedside nurse will verify the patient’s identification according to policy # 01.PAT.09 and place the patient on monitor and both will sign the worksheet in agreement all is correct.
   g. The CTM Responder Nurse will call the Centralized Telemetry Room and verify the patient’s name, room number, tele pack number and that the patient’s rhythm appears on the monitor in the CTM Room. The initial strip will be sent electronically to the EMR by the CTM HUC.

2. CONTINUATION OF MONITORING:
   a. The Responder Nurse will evaluate the CTM patient every 48 hours for appropriateness of continued monitoring. If appropriate for
discontinuation, the Responder Nurse will contact the MD for an order to discontinue CTM.

b. All significant changes in rhythm will be promptly reported to the unit nurse/responder nurse according to the method established for each alarm level as defined below.

c. The CTM responder nurse will be responsible for assessing the patient following a change in rhythm, communicating the change to the physician, obtaining orders and initiating all orders that require a cardiac nurse per SMH Nursing policy (126.155). The CTM responder nurse will be responsible for documenting these physician communications and cardiac nursing interventions in the flow notes.

d. Upon completion of bath/shower or return to the unit from test/procedure the unit nurse will be responsible to place the patient back on telemetry and then call ext. 7061 to verify that the patient’s rhythm appears in the Monitor Room.

e. Patients on CTM will be transported according to SMH policy 01.PAT.23 “Transportation and Monitoring of Patients.”

f. Patients should have an IV access unless there is an MD order otherwise or an IV site is not obtainable.

3. **ALARM LEVELS AND MANAGEMENT:** (Alarms will remain on at all times)

a. **Red Alarms/Level 1 Alarms**
   1) Ventricular tachycardia
   2) Ventricular fibrillation
   3) Asystole
   4) Extreme tachycardia (HR > 20 beats above set upper limit)
   5) Extreme bradycardia (HR 20 beats or more below set lower limit) or <40

b. **Notification for Red Alarms/Level 1 Alarms**
   1) The CTM HUC will call the patient’s unit. The CTM HUC will request that any available nurse go assess the patient’s status.
   2) The CTM HUC will also Voalte the CTM Responder Nurse to respond to the alarm.
   3) The first unit nurse at the bedside will determine whether or not to call a Code Blue based on assessment of the patient and the patient’s Code Status.
   4) If a Code Blue is not warranted, a nurse at the bedside will call the CTM HUC at
x7061 to establish communication at the patient’s bedside.

5) If the CTM HUC does not hear an Overhead page for Code Blue Stat to that floor and no communication has been established at the bedside between the nurse and the CTM HUC, a repeat call will be made to the unit and repeat step 2-5.

6) Repeat calls will be made at intervals until contact is made at the bedside.

c. Level II Notification of Rhythm change.
1) Level II Alarms are defined as all rhythm not meeting Level I/Red Alarms definition. The CTM HUC will Voalte the bedside nurse who is responsible for this patient. The CTM HUC will scan the strip into the patient’s chart.

2) If there is no response after the second call, the CTM HUC will notify the Charge RN where the patient resides.

3) If there is no response, the CTM HUC will notify the CTM Responder Nurse.

4) The CTM HUC will continue to Voalte the Charge Nurse at intervals until a nurse response is obtained.

5) For a repetitive pattern of rhythm occurrences that do not require immediate action, the Responder Nurse may decide that a repeat call to the nursing unit is not necessary every time the patient exhibits this rhythm. For example: If a patient has repeated episodes of Sinus Tachycardia and has been assessed several times by the bedside nurse and found to be asymptomatic the responder nurse can decide that the CTM HUC does not have to notify the unit every time the patient displays this rhythm.

6) For a repetitive pattern of HR change occurrences that do not require immediate action, the CTM Responder Nurse can decide to change HR Parameters Settings. For example: If a patient has repeated episodes of Sinus Tachycardia with rate of 129 beats per minute, and has been assessed several times by the bedside nurse and found to be asymptomatic, the CTM Responder nurse can decide that Default HR Parameter Settings can be changed to
130 beats per minute for high to alert if patient exceeds rate of 130 beats per minute. The change in HR Parameters Settings will be communicated to and recorded by CTM HUC in a daily log. HR Parameter Settings changes will be communicated in shift report by means of verbal report.

d. Level II Notification of loss of signal. Level II alarms include Leads off, No Signal and Low Battery.

1) The CTM HUC will Voalte the PCT who is responsible for this patient.
2) If the PCT does not verify response, the CTM HUC will Voalte the nurse responsible for this patient.
3) If there is no response after the second Voalte, the CTM HUC will notify the Charge RN where the patient resides.
4) If there is no response, the CTM HUC will notify the CTM Responder Nurse.
5) The CTM HUC will continue to Voalte the Charge Nurse at intervals until a nurse response is obtained.

4. DISCONTINUATION OF TELEMETRY:

d. Unit staff will notify the CTM staff of the order to discontinue telemetry and will remove the electrodes and monitor pack and place them in a plastic bag at the nurse’s station.

e. The responder nurse will pick up the tele-pack at the desk, remove the patient label, clean it, and log it back in at the CTM Room.

f. In the event a monitor pack is lost, the unit to which the pack was last assigned will incur replacement costs.

5. DOCUMENTATION:

d. The CTM RN will document the rhythm in the electronic medical record approximately every 4 hours in the Vital Sign Flowsheet.

e. Routine six-second strips will be sent electronically to the patient’s chart every 12 hours at approximately 4am and 4pm.

f. Rhythm changes, i.e. ectopy, arrhythmias will be sent electronically to the patient’s chart by the CTM HUC.

REFERENCES:
The Methodist Hospital, “Centralized Telemetry Monitoring
SMH Nursing Policy. Administration and Nursing Care of Adult Patients Receiving Cardiovascular and/or Vasoactive Medications. (126.155). SMH: Author.

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APPROVAL: Clinical Practice Council 11/3/16
ICM (when in house) reviews cardiac patients for placement using CTM 01 procedure/admission criteria (below)

**Does Patient have any of the following?**

- EKG changes consistent with AMI
- Abnormal EKG changes
- Positive cardiac enzymes (Lab > 0.05 ng/mL or iStat > 0.08 ng/mL)
- Acute unstable or potentially unstable arrhythmias
  - New onset Afib/flutter
  - SVT 5 or more PVCs in a row
  - New onset tachycardiac or bradycardia varying more than 20 beats per minute from patient baseline
  - 2nd or 3rd degree heart block
  - Pauses
- Acute exacerbation of heart failure
- New perm pacer or ICD within past 24 hours
- IV meds which can only be administered on cardiac/critical care (per nursing policy 126.155)

**NO**

Patient may be placed on remote telemetry

**YES**

Patient will be placed on a cardiac telemetry or critical care unit as appropriate. Patients with a primary diagnosis of heart failure should be considered for 8CYT placement if bed available.

If ICM needs assistance determining placement or are not in house, nursing supervisor to review using CTM 01 procedure/admission criteria (above)

After supervisor review, if there are further questions about placement, supervisor to consult with centralized telemetry monitoring nurse at x7302.