ALARM MANAGEMENT

Policy: ADM830.00, v.7 **Effective: 08/01/2025**
Category: Administration **Origination Date:** 06/08/2015

I. PURPOSE:

The purpose of this policy is to ensure the effectiveness of clinical alarm systems to promote patient safety and decrease alarm fatigue.

II. POLICY:

It is the policy of Mary Lanning Healthcare to utilize an Alarm Management Program to guide clinical staff to efficiently and safely monitor patient clinical alarms.

III. DEFINITIONS:

A. **Nuisance Alarm -** Alarms that are only status events or non-actionable alarms only requiring acknowledgement; self-defeating, nonproductive alarms that contribute to alarm fatigue and can have devastating effects.

B. **Clinical Alarms -** All patient physiologic monitoring and patient care equipment alarms (i.e. cardiac monitor alarms, fetal monitors, apnea alarms, cell-salvaging devices, elopement alarms, infusion pump alarms, ventilator alarms, pulse oximeters and emergency assistance alarms.)

C. **INOP Alarm** - Signifies an inoperative condition of the device. Alarms alert staff there may be a potential problem with the device.

IV. RESPONSIBILITIES:

A. Hospital staff that use medical equipment will check alarm settings to ensure they are appropriate and that audible alarms will be clearly discernable relative to ambient and competing noise.

B. Hospital staff assigned to or treating the patient will immediately respond to medical equipment alarms.

C. Hospital staff should not bypass, shut off, or adjust medical equipment alarm volumes to a level that cannot be heard when the alarm activates. Report alarms to a member of the patient's care team as soon as possible.

   1. Only exclusions are patients admitted in hospice status or as outlined in the *Alarm Parameter Adjustment Guidelines* (Attachment A).

D. Hospital staff should collaborate with department leadership to develop protocols and procedures for reducing unnecessary alarms in the environment and reduce excessive monitoring of patients.

E. Leadership of clinical areas are responsible for assuring staff adhere to alarm management guidelines and requirements.

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V. PROCEDURE:

A. Patient Equipment Guidelines

1. Bedside Patient Monitoring Equipment (vital signs, cardiac rhythms, ETCO2, etc.)

a) Patients 16 years of age or older

- Refer to Default Alarm Parameters (Attachment B) for default alarm parameter settings
- Alarm parameters may be adjusted following the *Alarm Parameter Adjustment Guidelines* (Attachment A).
- Alarm setting changes should be reviewed during bedside handoff.
- Telemetry monitor staff must address alarms immediately by reviewing the alarm for accuracy and following the chain of command notification process when patient monitoring issues arise. Refer to *Remote Telemetry Monitoring SOP III-74*.
- Refer to *Continuous ETCO2 Monitoring - CP342* for end-tidal CO2 (ETCO2) monitoring guidelines.
- Patients admitted in hospice status may be placed in the hospice profile.
    i. Turns off all physiological alarms
    ii. Silences technical blue INOP alarms.
    iii. MEWS is disabled

b) Patients less than 16 years of age

- Refer to Default Alarm Parameters (Attachment B) for default alarm parameter settings
- Refer to *Admission and Routine Assessment of the Pediatric Patient - PEDS 1.00*.

c) NICU Patients

- **Neonatal Cardiac Monitoring**
    i. Refer to Default Alarm Parameters (Attachment B) for default alarm parameter settings
    ii. Refer to *Cardiac Monitoring - FCC II-6*.

d) Fetal Monitoring

- Refer to *Admission & Care of Labor Patient - FCC I-1*.

2. Patient Safety Alarms (call lights, exit alarms, etc.)

a) Nursing Departments:

- RNs, LPNs, & CNAs are responsible for addressing and monitoring alarms.
- Clinical staff may address alarms as appropriate.

- All other hospital staff are responsible for reporting alarms to nursing staff.

b) Non-Nursing Departments:

- Clinical staff responsible for the care of the patient is responsible for addressing and monitoring alarms.
- All other hospital staff are responsible for reporting alarms to clinical staff.

c) Emergency pull type call lights:

- Length of pull cord must be between 3 and 6 inches from the floor. Cords must not be draped or wrapped around handrails or furniture. They must hang freely.

3. Infusion Pumps (IV, syringe, PCA, epidural, feeding, etc.)

a) RNs & LPNs are responsible for addressing and monitoring alarms.

b) All other hospital staff are responsible for reporting alarms to the nurse.

4. Treatment Devices (SCDs, wound vacs, specialized mattress, etc.)

a) Nursing staff are responsible for addressing and monitoring alarms.

- RNs & LPNs address all treatment device alarms
- CNAs can address SCD and specialized mattress alarms.

b) All other hospital staff are responsible for reporting alarms.

5. Other Medical Equipment/Devices

a) Clinical staff responsible for the care of the patient is responsible for addressing and monitoring alarms.

b) All other hospital staff are responsible for reporting alarms to clinical staff.

6. Emergency Alarms (O2 shut off, negative pressure room, fire, etc.)

a) All staff are responsible for addressing and monitoring alarms.

B. Alarm Failure and Alarm-related Incidents

1. Hospital staff will notify Biomedical Engineering department (Biomed) to evaluate patient monitoring or clinical equipment alarm failure, if identified. Alarm failure can include failure to alarm in the presence of abnormal measured parameters and established set points with respect to alarm delay setting. If alarm failure proven, malfunctioning equipment shall be removed from service.

   a) Refer to *Lockout/Tagout - EDP 400.002*.

2. Any patient monitoring or clinical equipment alarm failure that caused or may have caused a death, serious injury, serious illness, or a material change in the plan of care shall be reported in accordance with the hospital event reporting policy, *Sentinel Event - ADM83.00* and the Safe Medical Devices Act, as applicable. The hospital staff must immediately take such equipment out of service.

3. Unexplained or nuisance alarms may be indicative of equipment failure, and the hospital staff member and/or medical staff member identifying the nuisance alarms must report them to Biomed. Biomed will assess the situation and work with point of care clinical staff

and clinical leadership on plans of action, if indicated.

4. Any inappropriate bypass of an alarm function must be reported on a hospital occurrence report.

C. Patient Safety and Risk Assessment

1. Inpatient clinical areas will complete the Clinical Alarm Risk Assessment annually.

D. Medical Equipment Preventative Maintenance and Testing

1. Preventative maintenance and testing on alarms on patient physiological monitoring and patient care equipment is completed following *Preventive Maintenance - EDP 500.005*.
2. Preventative maintenance and testing is completed regardless of whether the hospital owns, borrows, rents or leases the equipment for long-term or short-term use.

VI. REFERENCES

A. *Lippincott Procedures*

1. *Cardiac monitoring*
2. *Cardiopulmonary monitoring, neonatal*
3. *Cardiopulmonary status monitoring, pediatric*
4. *Pulse oximetry*
5. *Pulse oximetry, neonatal*
6. *Pulse oximetry, pediatric*
7. *Pulse oximetry, carbon monoxide monitoring, respiratory therapy*
8. *IV pump use*

B. Lippincott Advisor - (NPSG.06.01.01) Improve the safety of clinical alarm systems (April 06, 2025)

C. TJC Sentinel Event Alert, Issue 50, April 8, 2013.

D. American Heart Association. (2020). 2020 American Heart Association Guidelines for CPR and ECC. Retrieved July 2025 from https://www.ahajournals.org/toc/circ/142/16_suppl_2

E. American Academy of Pediatrics & American Heart Association. (2021). *Textbook of neonatal resuscitation* (8th ed.).

F. AHA Team Training Webinar - Healthcare Transformation Services, Philips: A Team Approach to Improving the Acoustical Environment; October 2021.

G. Cosper, Pam et all. AAMI Foundation/HTSI. “Improving Clinical Alarm Management: Guidance and Strategies”, Biomedical Instrumentation and Technology; March/April 2017.

H. Sandau, Kristin E., et al. “Update to Practice Standards for Electrocardiographic Monitoring in Hospital Settings: A Scientific Statement From the American Heart Association.” Circulation, vol. 136, no. 19, 2017, doi:10.1161/cir.0000000000000527

I. *Preventive Maintenance - EDP 500.005*

J. *Remote Telemetry Monitoring - SOP III-74*

K. *Continuous ETCO2 Monitoring - CP342*
L. *Admission & Care of Labor Patient - FCC I-1*
M. *Admission and Routine Assessment of the Pediatric Patient - PEDS 1.00*
N. *Cardiac Monitoring - FCC II-6*
O. *Lockout/Tagout - EDP 400.002*
P. *Sentinel Event - ADM83.00*

VII. COLLABORATED WITH:

A. Alarm Management Team

VIII. DISTRIBUTION:

A. All clinical departments where medical equipment with alarms are in use.

IX. RESCISSIONS

A. Origination Date: 06/2015
    1. Approved by Alarm Management Team 05/2015
    2. Approved by Policy Committee 06/2015
B. Reviews/Revisions: 8/31/2016, 9/1/2016, 9/29/2017, 10/11/2017, 10/1/2019, 3/04/2021, 7/29/2022, 08/2025

X. REVIEW AND REISSUE DATE:

A. Three (3) years from Effective Date
B. 08/2028

XI. FOLLOW-UP RESPONSIBILITY:

A. Alarm Management Team

XII. ATTACHMENTS:

A. Alarm Parameter Adjustment Guidelines
B. Default Alarm Parameters