

NE0476 Alarm and Alert Management – Narration Script

Title Page:

Welcome to Alarm and Alert Management! This course will provide you with a deeper understanding of the alarm management system and how alarms escalate to team members. It will review team members responsibilities and how to respond and intervene.

Course Overview:

Proper understanding of managing cardiac, pulse oximetry, and ventilator alerts with the Connexall system is essential in providing the best care for our patients. This course will provide you with a deeper understanding of the alarm management system and how alarms escalate to team members. It will review team members responsibilities and how to respond and intervene. **Community**

Course Objectives:

This course provides education on managing cardiac and ventilator alarms. After completion of this course, you will be able to:

- Define the systems of alarm management.
- Identify the importance and responsibilities regarding response to clinical alarms.
- Recognize the pathways for alarm management using the Voalte application.
- Demonstrate the importance of appropriately managing alarms and alert workflows based on your role to ensure patient safety.
- Implement interventions to ensure alarms and alerts are addressed in a timely manner.

Alarm Fatigue and Patient Safety:

Alarm Fatigue Video

Between 2009 and 2012 the Joint Commission received reports of 98 sentinel events related to clinical alarms. 80 of those events resulted in patient deaths. In the United States between 2005 and 2008 the Food and Drug Administration reported 560 alarm related deaths. Hospitals in the United States between 2009 and 2012 reported 80 deaths and 13 severe injuries. These alarm sounds are common, but alarm fatigue can be dangerous.

Alarms and Patient Safety

Alarm fatigue is causing alarm desensitization leading to missed and delayed responses compromising patient safety.

Alarms, awareness, and transparency are key to helping us as an organization reduce serious safety events and keep our patients safe.

Alarm Management System:

Why does Novant Health have an alarm management system in place? Alarm systems have become a vital component to assisting team members to monitor their patients. Ultimately, alarm systems enable patients to be monitored even when they cannot be visualized. Patient safety, improved workflows and communication are hallmarks of the system that help to support team members.

How Connexall Works

Novant Health uses the alarm management software product, Connexall, to send cardiac, ventilator, and oxygen saturation alerts from GE patient monitors and Epic (Dimensions) to your Voalte app on your Novant Health clinician smartphone.

Let's examine how the alarm management system process works.

Step 1: Connexall receives information from Epic (Dimensions) and GE Healthcare monitors.

Step 2: Connexall receives the information and then manages the who, what, when and how to notify staff and team members.

Step 3: Connexall notifies the Voalte app on Novant Health clinician smartphones. Unresolved alarms will follow a defined escalation path. Live patient waveforms can be viewed on the Voalte app via Airstrip.

Why is it Important?

Patient Safety.

- Improved response time for those alerts and alarms you receive.
- Decrease in serious safety events related to cardiac and ventilator monitoring response times.

Improved Workflow and Communication.

Removes manual processes for TMU/Clinician communication such as:

- Phone calls
- Sharing nurse assignments
- Removes unnecessary team members out of the pathway

Alarms versus Alerts

The difference is important

It is important to be clear of the difference of an alarm versus an alert. Often the terms are used interchangeably, but this can degrade the critical nature of a potential serious event while also increasing effects of alarm fatigue.

Let's learn more about the difference of alarms versus alerts.

Alarms. An alarm is produced by the monitoring system to make the team member at the bedside aware of a parameter change in a patient's vital sign, heart rhythm, or ventilator setting.

Alerts. An alert is a banner or sound that is seen and heard on the Voalte app to make the team member aware an alarm has occurred. Opening the alert will reveal the alarm.

Dimensions and Voalte

Dimensions Sign-in and Voalte Login with Role Selection. In order to automatically receive the correct alarms/alerts, it is CRITICAL that you do two things:

1. Login and Sign-in to Dimensions to assign yourself to your patients.
2. Log into Voalte, selecting the appropriate Role and Department.

REMINDER! All ED staff needs to sign into the POD where you are working for the day.

Your patient assignments from Dimensions will automatically update in Voalte, regardless of which one you log into first.

IMPORTANT: If you are working as two roles, for example: Primary Nurse and a Team Lead or Rapid Response Nurse, you must select **BOTH** roles in Voalte to ensure the escalation path for patient alarms is correct.

Alert Information

Alert Option Definitions

If it hits your phone, it's yours to OWN! Alarms should never be ignored and always treated as they are real. Every alarm will be addressed and intervened upon as appropriate. You will be presented with options: Acknowledge/Accept, Escalate, and View/Acknowledge, on your Voalte app when you receive an alert. Let's clarify each option for addressing alerts.

Acknowledge/Accept. ACKNOWLEDGE the sound, then walk around! By acknowledging an alert, you are assuming responsibility for the patient. You must assess the patient immediately. If you are unable to assess the patient, you have the option of escalating or viewing a tracing. This option means you have seen the alert notification and immediately assess the patient. **THIS DOES NOT CANCEL/SILENCE THE MONITOR ALARM!**

Escalate. If you cannot go, ESCALATE to a pro! We all have competing priorities each day. Working together and collaborating with your team helps ensure the safety of every patient. If you are unable to immediately assess the patient, use the Escalate function to send the alert to the next team member in the alert pathway. This option means you have seen the alert notification but are unable to immediately assess the patient. This will escalate the alert to the next level up immediately.

View/Acknowledge. Avoid the racing, VIEW the tracing! By viewing the alert in real time, you can visualize the current pulse oximetry waveform or cardiac rhythm to help prioritize patient care. Utilizing the Airstrip technology available at your fingertips will help prioritize patient care. This option allows the user to view the rhythm that caused the alarm condition in Airstrip and acknowledge the alert. This means you will check the patient immediately after viewing the event.

Let's take at an Example of Transport Off-Unit.

If your patient is on a telemetry box while in a procedural area, the alert will continue to be sent to primary nurse. The Primary nurse is responsible and will inform the procedural area of the alert as appropriate.

For instance, patient is having a PICC Line placed in Interventional Radiology. Patient remains on telemetry box during the procedure. Any monitor events that prompt an alert, will be sent to the primary nurse.

If your patient is placed on a bedside monitor or portable monitor, no alerts will be sent by Connexall.

Alert Priorities

Alerts will be one of three priority levels, each with a unique icon and ringtone. Ringtones on the Voalte notification will sound the same as the alarm sounds on the GE monitor.

You can listen to an example ringtone of a crisis, warning, and message level priorities in the course.

REMEMBER! To acknowledge/accept the alert, you must swipe right on your Voalte app.

Alert Process

Below is the process that would occur when a team member receives an alert to the Voalte app on your Novant Health clinician smartphone from a triggered alarm. In the following example, the View/Acknowledge option was chosen which allows you to prioritize patient care by viewing the live reading.

1. Receive an alert.
2. Select the View/Acknowledge option based on your immediate actions.
3. View the event that triggered an alarm/alert.
4. Select the live button to view the patient's live telemetry and SpO2 reading.

Alert Process Workflow Scenarios

Each escalation pathway is tailored to each specific department and/or role. Access the course to interact with scenarios that are most relevant to your daily responsibilities. All CNAs should select adult acute care unless your main department is the emergency department.

Alert Process Knowledge Check

Let's check your knowledge on the alert process by selecting the appropriate answer that fits the situation.

1. You receive an alert for one of your patients. You are available. What is the next course of action you should take?
 - a. Acknowledge/Accept (correct)
 - b. Escalate
 - c. View/Acknowledge
2. Your patient is frequently dipping to 88% pulse ox level but bouncing back quickly. You receive pulse ox alert for 89%. You are pulling meds and you could intervene if necessary. What is the next course of action you should do?
 - a. Acknowledge/Accept
 - b. Escalate
 - c. View/Acknowledge (correct)
3. You receive an alert for a patient. You are unavailable. What is the next course of action you should take?
 - a. Acknowledge/Accept
 - b. Escalate (correct)
 - c. View/Acknowledge

Connexall Reporting

Nurse leaders will monitor Connexall reports to understand how well the team is responding to alarms. Connexall reports provide details about alerts that are delivered, acknowledged, escalated, and are viewed but not addressed. These reports provide event history and can identify incorrect workflow processes and the need for improvement.

Reports have rows highlighted in different colors:

- Red - The host, or system, could not deliver the alert. In this case, the team member was not online.
- Yellow - Alert has been delivered to the device and is ready to be viewed by the user.
- Blue - The team member opened the alert, but did not Acknowledge, Escalate, or View the alert.
- Green - The alert has been acknowledged by the team member.

You can see a visual example of a report in the course.

Alarm Policy Reminders and Tips

Policy Reminders

Monitoring

Patients that have orders for monitoring need to be on the cardiac monitor **AT ALL TIMES**.

An order from the provider **MUST** be obtained to remove a cardiac monitor unless they have a discharge order. This includes bathing, going to the toilet, ambulation, and/or a procedure/test.

Parameters

Change parameters for your patients' alarms as appropriate. *This is a Joint Commission Standard of Care to help with alarm fatigue.*

Critical Care, Emergency Department, Procedural and Surgical Services:

- Heart rate can be changed to what is appropriate for the patient without an order.

Adult Acute Care and Intermediate areas:

- Heart rate can be changed by 5 bpm (up or down) without an order.

All pulse oximetry alarms require an order from the provider to change.

Escalate any barriers to getting orders to your leader.

Tips for Basic Intervention

1. Change every 48-hours. Ensure electrodes are changed at least every 48 hours and when needed. Most patients will need electrodes changed with a bath.
2. Prep skin. Ensure proper skin prep is used before placing electrodes.
3. Proper positions. Place electrodes in the proper positions, not over bone.

Tips to Reduce Alarm Fatigue

Did you know that research indicates that 72% to 99% of all alarms are false which has led to alarm fatigue. Let's look at three tips to reduce alarm fatigue:

1. Acknowledge and check on the patient at the first level of escalation.

2. All team members should assign themselves to the treatment team.
3. Adjust alarm parameters as appropriate to help individualize your patients' care.

Summary and Resources:

This training provides you with the knowledge needed to manage patient alarms. Proper understanding of managing cardiac, pulse oximetry, and ventilator alerts with the Connexall system is essential in providing the best care for our patients.

Remember! Use 5, Save Lives. Practice with a questioning attitude, communicate clearly, know and comply with red rules, self-check and focus on the task, and support each other. Patient safety is everyone's responsibility!

Below are resources to assist in your continued success that you may bookmark, download, and/or refer to at any anytime.

Policy Documents:

- [Cardiac/Telemetry Monitoring with Alarm Management Communication \(NH-PC-PE-200\)](#)
- [Clinical Alarms \(NH-PC-PS-1660\)](#)

Sources:

- [Connexall Alarm Management Workflow Tip Sheet](#)
- [Connexall Alarm Management Downtime Process Tip Sheet](#)
- [Connexall Alarm Management Workflow - TMU Staff](#)

Continue to the course assessment before moving forward to the next section to complete the course.

Course Completion:

Congratulations, you have completed this education! **Please note that course completion requires that all lessons be completed! A checkmark beside of a lesson in the Table of Contents indicates a completion.** Your completion of this education acknowledges you understand how to appropriately apply the information shared in this course in your job duties. If you have questions about the content, please follow up with your leader for further support.

You may now select "EXIT COURSE" in the upper right corner of the course window to move this course to your completed transcript.