Hospital Telemetry

Event Investigation Tool

Describe details leading to the telemetry event:

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POLICY	YES	NO	NA
Is there a policy for monitoring of all patients on telemetry?			
Was the policy being followed?			
Does your staff have access to the policy?			
Have you discussed barriers for staff to follow policy?			
Does your policy address frequency of patch replacement?			
Does your policy address frequency of lead inspections?			
Does your policy address frequency of battery replacement?			
Does your policy address default alarm settings?			
Does your policy address when settings can be changed?			
Does your policy address volumes of alarms?			
Does your policy address response to alarms?			

Provide additional information related to the questions answered above:

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INITIATION	YES	NO	NA
Did patient meet criteria for telemetry monitoring?			
Was there an order for telemetry monitoring?			
Was the patient recently transported or admitted?			
If so, was patient monitored during transport?			
Was the patient left off telemetry monitoring following transport?			
Was staff unaware that patient was on unit?			
Were any other tasks prioritized over application of telemetry?			
Was staff interrupted prior to applying or reapplying telemetry?			
Was patient immediately toileted before telemetry applied/reapplied?			
Was proper skin prep utilized?			
Did the patches stay in place when applied?			
Did the patient have the correct telemetry box number?			
Did the waveform display on central monitor?			
Was the correct patient name on central monitor?			

Provide additional information related to the questions answered above:

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MONITORING	YES	NO	NA
Was the patient being monitored per order?			
Did hand-off occur related to telemetry?			
Was the telemetry box physically connected to the patient?			
Were the patches functioning optimally?			
Were patches changed per protocol?			
Were the leads functioning optimally?			
Were the batteries functioning optimally?			
Was the telemetry box functioning optimally?			
Was equipment transmitting?			
Was the central monitor functioning optimally?			
Are central monitors easily visible to staff?			
Were alarms on and activated at time of the event?			
Were alarms personalized for patient condition?			

Provide additional information related to the questions answered above:

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RESPONSE	YES	NO	NA
Did the alarms sound for this event?			
Are alarms audible throughout the unit?			
Did staff respond per protocol for this event?			
Was the alarm response escalated for this event if necessary?			
Did any previous alarms sound for this patient?			
If so, were previous alarms that sounded for this patient addressed? (leads off, battery, etc)			

Provide additional information related to the questions answered above:

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What is your final understanding of the telemetry event after using this investigation tool?

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** <u>Utilize the following resource pages for assistance.</u>
Based on opportunities identified during your event investigation, use the corresponding categories and guiding questions to help you find helpful material. **

Hospital Telemetry
Resources

EVENT DETAILS	QUESTIONS	SOURCE	WEBSITE
POLICY	*Who should have tele monitoring?*	American Heart Association (AHA) Practice Standards for ECG Monitoring in Hospital Settings	https://www.ahajournals.org/doi/10.1161/CIR.0000000000000527
		American College of Cardiology Key points to remember from the 2017 update to the American Heart Association Practice Standards	https://www.acc.org/latest-in-cardiology/ten-points-to-remember/2017/10/04/12/26/update-to-practice-standards-for-electrocardiographic-monitoring
		Implementing Practice Standards for Inpatient Electrocardiographic Monitoring	https://aacnjournals.org/ajcconline/article-abstract/28/2/109/4224/Implementing-Practice-Standards-for-Inpatient?redirectedFrom=fulltext
	What are the regulations?	Joint Commission: R³ Report Alarm System Safety	https://www.jointcommission.org/assets/1/18/R3_Report_Issue_5_12_2_13_Final.pdf
		Joint Commission National Patient Safety Goal	https://www.jointcommission.org/standards_information/npsgs.aspx
		Joint Commission Sentinel Event Alert Issue 50	https://www.jointcommission.org/sea_issue_50/
	What does the data show?	Pennsylvania Patient Safety Authority (PSA) Physiologic Alarm Management	http://patientsafety.pa.gov/ADVISORIES/Pages/201109_105.aspx
		Pennsylvania Patient Safety Authority (PSA) A Brief Analysis of Telemetry–Related Events	https://patientsafetyj.com/index.php/patientsaf/article/view/telemetry/67
		Healthcare Technology Foundation (HTF) 2011 National Clinical Alarms Survey: Perceptions, Issues, Improvements, and Priorities of Healthcare Professionals	http://www.thehtf.org/documents/2011_HTFAlarmsSurveyOverallResults.pdf

Patient Safety Authority

Hospital Telemetry
Resources

EVENT DETAILS	QUESTIONS	SOURCE	WEBSITE
POLICY	*Where do we start?*	The Association for the Advancement of Medical Instrumentation (AAMI) Clinical Alarm Management Compendium |Top 10 Ideas for Safe Alarm Management (2015)	http://s3.amazonaws.com/rdcms-aami/files/production/public/FileDownloads/Foundation/Reports/Alarm_Compendium_2015.pdf
	Do you have any tools?	AAMI Clinical Alarms 2011 Summit Top 10 Actions You Can Take Now	http://s3.amazonaws.com/rdcms-aami/files/production/public/FileDownloads/Summits/2011_Alarms_Summit_publication.pdf
		Veterans Health Administration (VHA) Alarm Safety Assessment Tool	https://accenet.org/publications/Downloads/Reference%20Materials/PSAT%20for%20Clinical%20Alarms%20Safety_2013.pdf
		National Association of Clinical Nurse Specialists (NACNS) How do I Start checklist	https://nacns.org/wp-content/uploads/2016/11/AF-GetStarted.pdf
	How do we inventory alarm parameters?	AAMI Alarm Parameter Inventory	http://s3.amazonaws.com/rdcms-aami/files/production/public/Libraries/Alarms/AlarmInventory_Chart.pdf
	How do we inventory equipment with alarms?	Courtemanche and Associates Medical Equipment: Clinical Alarms Risk Assessment	http://www.courtemanche-assocs.com/wp-content/uploads/Clinical-Alarm-Risk-Assessment-Template
	Is there online education/help?	AAMI Webinars (Sept 2013-April 2014) Alarm Systems Management Resources	http://www.aami.org/thefoundation/content.aspx?ItemNumber=1498&navItemNumber=675
		PSA webinar (2015) Alarm Management	https://www.youtube.com/playlist?list=PLwJn-tgLXAJKm72pXOMSV8_KZZ1bCe6CC

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		National Patient Safety Foundation (NPSF) Monitor Alarm Fatigue: Lessons Learned	http://www.thehtf.org/documents/v2NPSF-Webcast-Clinical_Alarm_Fatigue.pdf
	HELP!! I'm not sure what I need!!!	HTF Clinical Alarm Hazards and Management (Publications and Presentations)	http://www.thehtf.org/clinical.asp
		VHA Alarm Safety Assessment Tool	https://accenet.org/publications/Downloads/Reference%20Materials/PSAT%20for%20Clinical%20Alarms%20Safety_2013.pdf
INITIATING & MONITORING	What's the evidence?	Managing Alarms in Acute Care Across the Life Span: Electrocardiography and Pulse Oximetry	https://www.aacn.org/~/media/aacn-website/clincial-resources/practice-alerts/managing-alarms-in-acute-care-across-the-life-span.pdf
	Where are areas of opportunity?	PSA Alarm Interventions During Medical Telemetry Monitoring **FMEA**	http://patientsafety.pa.gov/ADVISORIES/Documents/2008sup1_01.pdf
	What about remote monitoring?	Patient Load Effects on Response Time to Critical Arrythmias in Cardiac Telemetry: A Randomized Trial	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6226252/
ALARM RESPONSE		AAMI Safety Innovations | Fighting Alarm Fatigue with Data-Driven Innovations (2016)	http://s3.amazonaws.com/rdcms-aami/files/production/public/FileDownloads/Foundation/SafetyInnovation/2016_SI_NCH_Fighting_Alarm_Fatigue.pdf
	Where are our nuisance alarms? What can we do?	Customizing Alarm Limits Base on Specific Patient Needs	http://s3.amazonaws.com/rdcms-aami/files/production/public/Libraries/Alarms/2017_BIT_MJ_Customizing_Alarms.pdf

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		AAMI Safety Innovations | Clinical Practice Changes Associated with Alarm Standardization	http://s3.amazonaws.com/rdcms-aami/files/production/public/FileDownloads/Foundation/SafetyInnovation/2014_SI_Alarm_Standardization_Boston.pdf
	How about middleware?	Improving Clinical Alarm Management: Guidance and Strategies	http://s3.amazonaws.com/rdcms-aami/files/production/public/Libraries/Alarms/2017_BIT_MA_ClinicalAlarmManagement.pdf
MISC	From data to policy development...a case study	HTF Development of Clinical Alarm Policies and Procedure at an Acute Care Hospital to Comply with The Joint Commission's New National Patient Safety Goal	http://www.thehtf.org/documents/Policy%20Development.pdf
	All around help: online resources and literature	NACNS Alarm Safety Crosswalk	https://nacns.org/wp-content/uploads/2016/11/AF-CrosswalkLitTable.pdf
		AAMI Clinical Alarms Library	https://www.aamifoundation.org/coalitions/clinical-alarm-systems/