Goals for Today

- Introduction to EBP & Framework for Projects
- Definition of EBP, QI, Importance of Appraisal Questions
- Application of Iowa Model
- Project examples—QI-based—general & a couple published articles
- Development of PICO terminology/example on whiteboard
- Discussion of Library Services & Application of PICO example to Literature Search Resources
- Small-group PICO terms brainstorming work with worksheets
Strategies for Planning EBP

• Close communication—who is your group “point person”?
• Value the experiences and observations of nurse leaders and clinical resource nurses on the unit
• Follow project timelines for completing checkpoints
• Review timeline for past protocol changes
• Review recent articles in quality improvement journals to note other examples
Evidence-Based Practice

• Yes, we’re familiar, but to different degrees!

• The universal definition usually contains:
  – Research findings
  – Patient preferences/values
  – Clinician expertise

• “The conscientious, explicit, and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available clinical evidence from systematic research”.

(Sackett, Straus, Richardson, et al., 2000).
Moving Through the Model

• Secure question/topic

• Assemble, Appraise, and Synthesize Body of Evidence
  – Conduct systematic search
  – Weigh quality, quantity, consistency, and risk
  – Is the evidence sufficient?—No—more research needed?
    • Yes? Design & pilot practice change

• Things to consider:
  – Engaging patients, verify preferences
  – Baseline data and a localized protocol
  – Prepare clinicians and materials
  – Implementation and evaluation plans
What About QI and Research?

Data-driven—what can we do with the day-to-day data we have—how can we improve care?

Using evidence to make clinical practice decisions

New knowledge generation & creation of research protocols

Carter et al., 2017
Clinical Questions/PICO Questions

• A first step: Moving from “clinical question” to “PICO”

• It’s all about how it’s phrased! Casual/clinical questions:
  • “Why is ______ happening to our patients?”
  • “Is ______ better than what we are doing now?”

• Modify to fit the PICO structure—focusing on key terms that help your search
**PICOT and What it Means**

- **P** – population, problem, pt.
- **I** -- intervention
- **C** -- comparison
- **O** -- outcome
- **T** – time (optional)

**Why? Planning & Documentation!**
**Example: PICOT Process**

<table>
<thead>
<tr>
<th>P</th>
<th>I</th>
<th>C</th>
<th>O</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population/pts</td>
<td>Intervention</td>
<td>Comparison</td>
<td>Outcome</td>
<td>Time</td>
</tr>
<tr>
<td>synonyms</td>
<td>synonyms</td>
<td>synonyms</td>
<td>synonyms</td>
<td>specify</td>
</tr>
<tr>
<td>(p OR p OR p OR p) AND (i OR i OR i) AND (c OR c) AND (o OR o OR o OR o OR o OR o)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How would I know I’ve found a scholarly (empirical) article?

- The article is published in a peer-reviewed journal.
- The article includes charts, graphs, or statistical analysis.
- The article is substantial in size, > 5 pages long.
- The article contains the following parts (the exact terms may vary): abstract, introduction, method, results, discussion, references.

http://research.library.gsu.edu/litrev
Guiding Questions

- How well does it address your PICOT question?
- Consider the study design, and what type of data is provided
- What population was studied in this article? Is it like yours?
- What else have you found? How does it compare? Which article is the “best”?

Repeat as needed!
Basic Critique of Primary Sources

• Ask a series of questions while reading
• Acknowledge differences with varying study designs
• Look at relevance and application
• Think about major sections of an article
  – Introduction
  – Review of Literature
  – Methods
  – Analysis
  – Discussion

Many detailed checklists available as resources
Three Main Questions

• What are the results of the study?
• Are these results valid?
• Will they help us in caring for our patients?
  – (Concepts of applicability, reliability, and validity)

Recommending Change

Ask, “Is there enough valid and reliable evidence from the search to make a recommended change in clinical practice?

- Consider the strength of the evidence from the critical appraisal

Yes

Plan for integration of evidence with consideration of clinical expertise, patient preferences and use internal evidence. Evaluate and continue if positive outcomes are achieved.

No

Generate internal evidence through the project implementation or further external research, integrate with clinical expertise and patient values, evaluate the outcome, and continue if positive.

Tips for Staying on Track!

• How will your group check in with your facilitator? Have you discussed expectations for this?
• Study the suggested timeframe and delegate tasks
• Consider Research Assistance Program (RAP) session with library staff http://library.bryanhealthcollege.edu/main
• Celebrate your progress and successes, step-by-step!
Part II: PICO and the Literature Search

Andrea Dinkelman, PharmD, MS
Lesa Hoppe, MSN, RN

April 17, 2018
BCHS Library Website
http://library.bryanhealthcollege.edu/
Nurse Residency Program Resources
http://library.bryanhealthcollege.edu/nurseresidency

Welcome!

What is Evidence-Based Nursing?

The following diagram illustrates the components that are part of evidence-based practice:

- Clinical Expertise
- Patient Values & Preferences
- Best Research Evidence
- EBP

Some definitions of Evidence-Based Nursing Practice:

- "the conscientious, explicit and judicious use of theory-derived, research-based information in making decisions about care delivery to individuals or groups of patients and in consideration of individual needs and preferences." Ingersoll, G. (2000). Evidence-based nursing: what it is and what it isn’t. Nursing Outlook, 48(4), 151-152

- "an ongoing process by which evidence, nursing theory and the practitioners’"
PICO Terminology

Source: http://www.nurstoons.com/alarms/
Research Question

• What are the best strategies available to prevent alarm fatigue among critical care nurses?
**PICO Worksheet: Brainstorm!**

<table>
<thead>
<tr>
<th>Research Question</th>
<th>P = Patient, Population, Problem</th>
<th>I = Intervention</th>
<th>C = Comparison intervention</th>
<th>O = Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the best strategies available to prevent <strong>alarm fatigue</strong> among <strong>critical care nurses</strong>?</td>
<td>“critical care nursing” OR “intensive care units” OR “coronary care nursing” OR “coronary care units” OR nurs*</td>
<td>Strategies OR prevention OR control OR management</td>
<td>&quot;alarm fatigue&quot; OR &quot;alarm desensitization&quot; OR &quot;sensory overload&quot; OR &quot;equipment alarm systems&quot; OR alarm*</td>
<td></td>
</tr>
</tbody>
</table>

Use quotation marks for exact phrases. (Exception: not recommended in PubMed) Use an * to retrieve alternate word endings
Selecting Synonyms

• Before searching, think carefully about keywords.
• Consider common names, scientific names, abbreviations, related terms
  – Heart attack, myocardial infarction
  – Lou Gehrig disease, amyotrophic lateral sclerosis, ALS
  – Internship, preceptorship, residency
• Alternate spellings
  – Anesthesia, anaesthesia
• Database specific terms: look at database records for terminology
Clinical Trial of an **Educational Program to Decrease Monitor Alarms in a Medical Intensive Care Unit.**

**Authors:** Brantley, Arian; Collins-Brown, Sandra; Kirkland, Jasmine; Knapp, Meghan; Pressley, Jackie; Higgins, Melinda; McMurtry, James P.

**Affiliation:** Staff Nurse, **71 Intensive Care Unit**, Emory University Hospital Midtown, Atlanta, Georgia
Associate Research Professor, Neil Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia
Clinical Nurse Specialist, **71 Intensive Care Unit**, Emory University Hospital Midtown, Atlanta, 550 Peachtree St, NE, Atlanta GA 30308

**Source:** AACN Advanced Critical Care (AACN ADV CRIT CARE), Jul-Sep 2016; 27(3): 283-289. (7p)

**Publication Type:** Article

**Language:** English

**Major Subjects:** Equipment Alarm Systems -- Education
Critical Care Nursing

**Minor Subjects:** Human; Clinical Trials; Convenience Sample; Staff Development; Outcomes of Education -- Evaluation; Chi Square Test; Descriptive Statistics; Program Evaluation; Intensive Care Units; Georgia; Pretest-Posttest Design; Course Content; Oxygen Saturation; Male; Female; Adult; Middle Age; Job Experience

**Abstract:**
Clinical research to identify effective interventions for decreasing nonactionable alarms has been limited. The objective of this study was to determine if a staff educational program on customizing alarm settings on bedside monitors decreased alarms in a medical intensive care unit (MICU). A preintervention, postintervention, nonequivalent group design was used to evaluate an educational program on alarm management in a convenience sample of MICU nurses. A 15-minute session was provided in a 1-week period. The outcome variable (number of alarms for low oxygen saturation via pulse oximetry [SpO₂]) was determined from monitor log files adjusted by patient census. Data were collected for 15 days before and after the intervention. \( \chi^2 \) analysis was used, with \( P < 0.05 \) considered significant. After 1 week of education, low SpO₂ alarms decreased from 502 to 306 alarms per patient monitored per day, a 39% reduction (\( P < .001 \)). Instructions for nurses in the medical intensive care unit on individualizing alarm settings to patients’ clinical condition decreased common monitor alarms by 39%.

**Journal Subset:** Core Nursing; Double Blind Peer Reviewed; Editorial Board Reviewed; Expert Peer Reviewed; Nursing; Peer Reviewed; USA

**ISSN:** 1559-7768

**MEDLINE Info:** NLM UID: 101269322

**Entry Date:** 20160911

**Revision Date:** 20160920

**DOI:** [http://dx.doi.org/10.4037/aacnacc2016110](http://dx.doi.org/10.4037/aacnacc2016110)
Clinical Trial of an Educational Program to Decrease Monitor Alarms in a Medical Intensive Care Unit.

Brantley A¹, Collins-Brown S¹, Kirkland J¹, Knapp M¹, Pressley J¹, Higgins M¹, McMurtry JP¹.

Author information
1 Arian Brantley is Staff Nurse, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, Georgia. Sandra Collins-Brown is Staff Nurse, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, Georgia. Jasmine Kirkland is Staff Nurse, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, Georgia. Meghan Knapp is Staff Nurse, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, Georgia. Jackie Pressley is Staff Nurse, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, Georgia. Melinda Higgins is Associate Research Professor, Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia. James P. McMurtry is Clinical Nurse Specialist, 71 Intensive Care Unit, Emory University Hospital Midtown, Atlanta, 550 Peachtree St, NE, Atlanta GA 30308 (james.mcmurtry@emoryhealthcare.org).

Abstract
Clinical research to identify effective interventions for decreasing nonactionable alarms has been limited. The objective of this study was to determine if a staff educational program on customizing alarm settings on bedside monitors decreased alarms in a medical intensive care unit (MICU). A preintervention, postintervention, nonequivalent group design was used to evaluate an educational program on alarm management in a convenience sample of MICU nurses. A 15-minute session was provided in a 1-week period. The outcome variable (number of alarms for low oxygen saturation via pulse oximetry [SpO₂]) was determined from monitor log files adjusted by patient census. Data were collected for 15 days before and after the intervention. x² analysis was used, with P less than .05 considered significant. After 1 week of education, low SpO₂ alarms decreased from 502 to 306 alarms per patient monitored per day, a 39% reduction (P < .001). Instructions for nurses in the medical intensive care unit on individualizing alarm settings to patients' clinical condition decreased common monitor alarms by 39%.

©2016 American Association of Critical-Care Nurses.

KEYWORDS: alarm avoidance; alarm fatigue; false alarms; nonactionable alarms; nuisance alarms
**PubMed Record**

<table>
<thead>
<tr>
<th>Publication type, MeSH terms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publication type</strong></td>
</tr>
<tr>
<td>Comparative Study</td>
</tr>
<tr>
<td><strong>MeSH terms</strong></td>
</tr>
<tr>
<td>Adult</td>
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<tr>
<td>Clinical Alarms*</td>
</tr>
<tr>
<td>Clinical Nursing Research</td>
</tr>
<tr>
<td>Critical Care Nursing/education*</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Humans</td>
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<tr>
<td>Intensive Care Units</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Middle Aged</td>
</tr>
<tr>
<td>Monitoring, Physiologic/instrumentation*</td>
</tr>
<tr>
<td>Monitoring, Physiologic/nursing*</td>
</tr>
<tr>
<td>Nursing Staff, Hospital/education*</td>
</tr>
</tbody>
</table>
## Search Tips: Use Boolean Operators

### Search Operators (AND, OR, & NOT)

These operators can be used in Library databases, but also work really well in Google!

<table>
<thead>
<tr>
<th>Operator</th>
<th>Purpose</th>
<th>Example Search</th>
<th>Visualization</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>Expands the search. Used to string synonyms together. Results include all articles with any of the terms used.</td>
<td>Hand washing OR Hand Hygiene (all results including the words &quot;hand washing&quot; as well as all results including the words &quot;hand hygiene&quot;)</td>
<td>![Hand Washing and Hand Hygiene Venn Diagram]</td>
</tr>
<tr>
<td>AND</td>
<td>Narrows the search. All retrieved results must include all terms connected with AND. AND usually combines different concepts together in one search.</td>
<td>Hospital infection AND Antibiotic (only results that include both the terms &quot;hospital infection&quot; and &quot;antibiotic&quot;)</td>
<td>![Hospital Infection and Antibiotic Venn Diagram]</td>
</tr>
<tr>
<td>NOT</td>
<td>Excludes results with a specific term. Really handy to eliminate unwanted search results.</td>
<td>Antibiotic NOT Penicillin (all results with the term &quot;antibiotic&quot;, but excluding those with the term &quot;penicillin&quot;)</td>
<td>![Antibiotic and Penicillin Venn Diagram]</td>
</tr>
</tbody>
</table>

Source: http://guides.lib.utc.edu/nursing-literature-search-guide/step4
Searching for Articles

• CINAHL Complete
• PubMed
Search Results: 1 - 50 of 1,070

1. **Assessment of Clinical Alarms Influencing Nurses’ Perceptions of Alarm Fatigue.**
   - (includes abstract) Petersen, Emilie M; Costanzo, Cindy L. Dimensions of Critical Care Nursing. Jan/Feb 2017, 36(1): 36-44. 9p. (Article) ISSN: 0730-4625
   - Subjects: Critical Care Nursing; Equipment Alarm Systems; Fatigue; Nurse Attitudes Evaluation
   - Cited References: (27)
   - [Click Here for Full Text Finder](#)

2. **Clinical Trial of an Educational Program to Decrease Monitor Alarms in a Medical Intensive Care Unit.**
   - (includes abstract) Brantley, Arian; Collins-Brown, Sandra; Kirkland, Jasmine; Knapp, Meghan; Pressley, Jackie; Higgins, Melinda; McMurtry, James P; AACN Advanced Critical Care. Jul-Sep 2016, 27(3): 283-288. 7p. (Article - clinical trial, research, tables/charts) ISSN: 1559-7768
   - Subjects: Equipment Alarm Systems; Education; Critical Care Nursing; Adult: 19-44 years; Middle Aged: 45-64 years; Male; Female
   - [PDF Full Text](#)

3. **From Data to Action: Developing NextGen Enterprise Dashboard Analytics to Reduce Clinical Alarm Fatigue.**
   - Linnen, Daniel; Quinton, Melanie; Staley, Darrell; Nursing Informatics Today. 2015 4th Quarter; 30(4): 4-10. 7p. (Article) ISSN: 1551-9104
   - Subjects: Equipment Alarm Systems; Fatigue Prevention and Control; Patient Safety; Critical Care Nursing; Health Facility Environment
   - [PDF Full Text](#)
Use “limits” to identify evidence-based publications

Do not limit to:
• Bryan Library Collection
• Full Text
Evidence-Based Care Sheet

Search Results: 1 - 1 of 1

1. Alarm Fatigue and Patient Safety
   Mennella H; Pravikoff D; CINAHL Nursing Guide, EBSCO Publishing, 2016 May 27 (Evidence-Based Care Sheet)
   [HTML Full Text]  [PDF Full Text]

• Good source for background information.
**PubMed**

- Need to search PubMed & CINAHL
- Not all nursing journals are indexed by CINAHL
  - *Evidence Based Nursing* indexed in CINAHL from 01/01/1998 to 04/01/2016!!
  - PubMed indexes *Evidence Based Nursing* from 2001 - present
- Other biomedical journals may be relevant to the topic
- “Ahead of Print” publications are indexed in PubMed, so may be available quicker than CINAHL
- Can create NCBI account to customize PubMed display
Assessment of Clinical Alarms Influencing Nurses' Perceptions of Alarm Fatigue.

Petersen EM, Costanzo CL.

Abstract

BACKGROUND: Excessive clinical alarms have inundated healthcare facilities for years. Multiple governing bodies, organizations, and facilities have deemed alarm management a priority. Alarm management is a multifaceted problem that affects all healthcare organizations and clinical staff, especially those in critical care units. Ultimately, the lack of knowledge regarding nurses' perceptions to alarm management and alarm fatigue creates patient safety chasms.

OBJECTIVES: The purpose of this quality improvement project was to understand nurses' perceptions of alarm fatigue (utilizing the Healthcare Technology Foundation’s Clinical Alarms Committee Survey) while implementing interventions that improve patient safety.

METHODS: The design of this quality study is an electronically distributed survey to 31 nurses who work in critical care. The Healthcare Technology Foundation clinical alarms survey has 36 questions with various answering strategies distributed (with permission) via e-mail access by BlueQ through Creighton University.

RESULTS: Twenty-six respondents (n = 26) completed the survey, with 42% being intensive care unit nurses and 58% being progressive care unit nurses. The majority of nurses (n = 23, 88%) agreed that nuisance alarms occur frequently and disrupt patient care (n = 25, 96%). A lack of standardized method was noted to alarm management and parameter changes. Multiple patterns emerged that initiated the need for further examination and improvement.

DISCUSSION: Following the survey, themes emerged, and changes were implemented including the following: an alarm management policy was created, tools were provided to staff for easy usage, staff were educated using hands-on practice at an annual training summit, and sustainability was created through continuation of alarm management assessment and improvement.

PMID: 27902861 DOI: 10.1097/CCM.0000000000002220
Get it @ Bryan College of Health Sciences

Assessment of Clinical Alarms Influencing Nurses' Perceptions of Alarm Fatigue.
Petersen. Dimensions of Critical Care Nursing Volume: 36 Issue 1 (2017) ISSN: 0730-4625 Online ISSN: 1538-8646

All Options for Full-Text Access

Full text available from the following resources:
- Find this article in full text from OVID 01-01-2001 - present

A Bryan network login is required to open full-text articles for this journal.

Contact Us
- Questions? Contact the Library
No full-text? Use interlibrary loan!
PubMed Clinical Queries
### Clinical Study Categories

**Category:** Therapy  
**Scope:** Broad

### Systematic Reviews

#### Results: 5 of 83

- **Acceptability of the 6-PACK falls prevention program: A pre-implementation study in hospitals participating in a cluster randomized controlled trial.**
  - Barker AL, Morello RT, Ayton DR, Hill KD, Brand CA, Livingstone PM, Boll M.

- **The Effectiveness of a Wireless Modular Red Absence Sensor Device for Fall Prevention among Older Inpatients.**

- **So you want to conduct a randomised trial? Learnings from a ‘failed’ feasibility study of a Crisis Resource Management prompt during simulated paediatric resuscitation.**
  - Teas R, Allen J, Lee N, Killem S.

- **Clinical Trial of an Educational Program to Decrease Monitor Alarms in a Medical Intensive Care Unit.**

- **A Computer Prescribing Order Entry-Clinical Decision Support system designed for neonatal care: results of the “preselected prescription” concept at the bedside.**
  - Gouyon B, Iacobelli S, Saïba E, Quentin C, Pignollet A, Jacqz-Aigrain E, Gouyon JB.

- **The effectiveness of nurse education and training for clinical alarm response and management: a systematic review.**
  - Yue L, Plummer V, Cross W.

- **Alarm Fatigue: Use of an Evidence-Based Alarm Management Strategy.**
  - Turner J, Cota L, Gathelia R, Hesford T, Majski A.

- **Retrospective analysis of pulse oximetry alarm settings in an intensive care unit patient population.**
  - Landstowe K, Strauss DG, Scully C.

- **Research in Review: Driving Critical Care Practice Change.**
  - Bridges E, McNeill M, Munro N.

- **Systematic Review of Physiological Monitor Alarm Characteristics and Pragmatic Interventions to Reduce Alarm Frequency.**
  - Peirs OW, Giel VV, Ely E, Steege CD, Stemer G, Zander M, Benefice CP.

#### Results: 5 of 22

- **Accuracy of prospective space-time surveillance in detecting tuberculous transmission.**
  - Verma A, Schwartzman K, Behr MA, Zwerling A, Allard R, Roosendaal CM, Buckeridge DL.

#### Results: 1 of 1

- **Medical Genetics**
  - **Topic:** All

- **This column displays citations pertaining to topics in medical genetics. See filter information.**
Additional Resources

Nurse Residency Program Resources: Find the Evidence

This guide has been created to support the Nurse Residency Program at Bryan Medical Center.

Background Information: Begin Your Search Here

- Textbooks or "point of care" summaries are good sources for background information.
  - Nursing Reference Center
    - Looking for a brief overview or summary? Check out the Nursing Reference Center for Evidence-based Care Sheets and Quick Lessons. These are also available in CINAHL.
  - UpToDate
    - UpToDate is an evidence-based, physician-authored resource that can be used to make point-of-care decisions. UpToDate documents provide evidence-based recommendations based on the latest, best evidence from journal literature and trusted professional organizations.

Key Resources for Evidence-Based Information

- Search for scholarly articles in the following databases:
  - CINAHL Complete
  - PubMed with Bryan Library Holdings
  - Cochrane Collection

Freely Available Websites: Practice Guidelines and Other Data

- Practice guidelines and clinical guidelines are available from a wide variety of organizations. Start your search at the National Guidelines Clearinghouse. You may also need to search websites of professional organizations for guidelines.
  - National Guidelines Clearinghouse
  - AHRQ - Agency for Healthcare Research and Quality

Additional Resources for Evidence-Based Information

- TRIP (Turning Research into Practice)
- PEDro
- Health Evidence

Practice Guidelines from Specific Professional Organizations

- American Academy of Neurology - Practice Guidelines & Tools
- American Association for Respiratory Care - Clinical Practice Guidelines
- American College of Physicians - ACP Clinical Recommendations
- American Diabetes Association - Standards of Care
Searching for Guidelines

Can search by URL.

Site: .jointcommission.org
Search by domain.

Site:.org
Google Scholar: QI Projects

Alarm Fatigue: A Risk Assessment
E Baillargeon - 2013 - digitalcommons.ric.edu
Abstract Alarm Fatigue is the phenomenon which occurs when nurses become overwhelmed by the high number of alarms in the clinical environment. This is a significant patient safety issue as delayed or inappropriate responses can and have resulted in patient harm. The cited by 1 related articles all 3 versions cite save

A Stochastic Simulation Model of Alarm Response Strategies on a Telemetry Floor
TM Fishori - 2012 - digitalcommons.ucconn.edu
221. Alarm Fatigue ..... 422. ... Page 8. v Abstract The large quantity of alarms characteristic of clinical settings have resulted in nursing staff suffering from a phenomenon termed alarm fatigue. Alarm fatigue is ...
Cited by 1 Related articles All 2 versions cite save

Hospital Ward Alarm Fatigue Reduction Through Integrated Medical Device Instruction and Hospital System Policy
J Robb - 2014 - scholarscompass.vcu.edu
This Final Project is brought to you for free and open access by the VCU da Vinci Center at VCU Scholars Compass. It has been accepted for inclusion in VCU da Vinci Center Student Works by an authorized administrator of VCU Scholars Compass. For more information, please contact all 2 versions cite save

Alarm Fatigue: Understanding the Problem & Strategies for Reducing Alarm Burden
EK Vaclim - Joint Commission Perspectives, 2013 - urmc.rochester.edu
Methods ALARM PROFILE: The new profile was designed with the goal of reducing nuisance alarms by applying more stringent criteria. Proposed changes were presented to and approved by the institutional Critical Care Quality Council before implementation. The related articles cite save more

Reducing Alarm Fatigue in the Emergency Department
W Fleischman, E Rabin, AF Maini - Hypertension, 2013 - academica.edu
There were 216,214 alarms in the pre-intervention period and 28,398 alarms post-intervention, an 87% reduction in total alarms. In the pre-intervention dataset, alarm duration ranged from 0 to 150.326 seconds with a mean of 1.45 seconds (95% CI 1.38-1.51, SD 1.473). All 4 versions cite save more
Reducing Alarm Fatigue in Critical Care

Janice A. Winfrey

Date of Graduation
Spring 5-19-2017

Document Type
Project/Capstone

Degree Name
Master of Science in Nursing (MSN)

College/School
School of Nursing and Health Professions

Abstract
Reducing Alarm Fatigue in Critical Care

This improvement project took place on the Critical Care Unit (CCU) of a non-profit hospital in Northern California. The unit houses 54 beds, employs over 210 employees, and houses the facility’s central cardiac monitoring station which utilizes unit staff. The objective was to improve patient safety through reducing the risk of alarm fatigue by decreasing the total number of clinical alarms on the unit. Specified goals included a 20% reduction in the number of alarms sounding on the unit with a 20% reduction in telemetry utilization. Goals were chosen based on unit assessment findings in comparison to The Joint Commission’s (TJC) National Patient Safety Goals and associated guidelines, as well as the American Heart Association’s (AHA) guidelines for inpatient continuous cardiac monitoring. Stages of the project were implemented using Lewin’s Change Theory. Findings include a 13% average decrease in telemetry utilization and a decrease in clinical alarms of 29%. The sustainability plan includes annual education modules regarding the alarm management policy and alarm event
Closing The Loop

• What questions do you still have?
• Is there anything else we should address before we adjourn today?
“Belief at the beginning of any successful undertaking is the one ingredient that will ensure success”

-William James
Resources

