Assessing and improving the use of near-miss reporting to prevent adverse events and errors in rural hospitals

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Goals

• This module will present a simplified checklist approach for assessing the hospital's near-miss reporting systems, including strategies for data analysis and organizational actions

• The importance of a clear communication plan to create expectations and convey the rationale for near miss reporting will be discussed
Objectives

• Definitions and examples
• Business Case for Reporting
• Culture and Learning Systems
• Analyzing and Acting on the Data
• Assessment Checklist
• Summary

Near-Miss (a.k.a. - close call, good catch)

An event or situation that could have resulted in an accident, injury or illness, but did not, either by chance or through timely intervention (i.e., prevention or mitigation)

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Includes unsafe conditions that are not associated with a specific event or situation
“Near Miss” events take many forms

- Ketorolac is prescribed, dispensed, and administered - without harmful effects - despite a documented history of anaphylaxis to aspirin
- Rx and RN identify and prevent a missed order for insulin following a med-reconciliation review
- Rx tech alerts supervisor to new labeling for vecuronium that looks similar to atropine
- RN reconciles the MAR and identifies an antibiotic that was not renewed following an Automatic Stop Order

How is near-miss reporting different?

Emphasizing near misses creates a change in focus from errors and adverse events to recovery processes

Recovery equals resilience; emphasis on successful recovery, which offers learning opportunity
Relationship of Near-Miss Reporting to Pharmacy and Nursing Interventions

Fundamentally, these are identical except that “interventions” are more professionally/socially acceptable – it’s doing our job…doing the right thing….documenting an intervention “feels” differently than documenting a near-miss or an error

Relationship of Near-Miss Reporting to Rx and RN Intervention Systems

Develop and use intervention documentation systems to capture near-miss and close call events

IF

it is more socially and politically acceptable in your hospitals
Prevalence

Prevalence of near-miss reporting in hospitals varies widely

In large systems, approximately 84 - 90% of all medical safety reports are near-misses. (no harm events)

Clinicians believe a report is submitted only...

57%
A mistake is made, caught and corrected before affecting the patient

59%
A mistake is made, even with no potential for harm

-2012 AHRQ Hospital Culture Survey Report
Prevalence and Use in Rural Hospitals

NCCMedS network: 93% of hospitals reported having a near-miss reporting system

But….how is it used?

<table>
<thead>
<tr>
<th>Ratio of near-miss to overall event reporting</th>
<th># hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td># near miss / # all events</td>
<td></td>
</tr>
<tr>
<td>&gt; 80% near miss</td>
<td>3 hospitals</td>
</tr>
<tr>
<td>50-79% near miss</td>
<td>3 hospitals</td>
</tr>
<tr>
<td>&lt; 50% near miss</td>
<td>10 hospitals</td>
</tr>
<tr>
<td>data not sorted by harm/near-miss</td>
<td>11 hospitals</td>
</tr>
<tr>
<td>near miss not reported</td>
<td>2 hospitals</td>
</tr>
</tbody>
</table>
Prevalence and Use in Rural Hospitals

Unique characteristics of small and rural hospital can work against any safety reporting system

“Smaller communities - we’re all neighbors”
Long term staff – less turnover
Less anonymity of actors

Business Case – Premise

While outcomes are important, it’s also necessary to measure process and behaviors

Identify and reduce risky conditions; identify and reinforce safety actions and recovery actions
Business Case

• Few data are available regarding the costs of medication errors that do not result in harm.

• One estimate suggested that near misses create approximately 20 minutes of extra work per error, mostly RN and Rx time (Bates et al., 1995a).

• While no harm is involved, extra work and the costs involved may be substantial.

Business Case

• Near-misses may also cost more than medication errors with little potential for harm, although this has not been assessed formally.

• Costs include operating costs (rework and waste); opportunity costs (failure to perform other productive activities); human resource costs (management and staff time).
For events that reach the patient, the following extra times can be expected:

- reviewing the individual report
- interviewing staff
- researching records
- taking statements
- determining causes
- activities to understand the near-miss
- peer review activities

Manager and Supervisory time

- Time to manage events is not budgeted
- Low awareness of the time consumed
- Even near miss events consume significant time
Culture and Learning Systems

Near-miss reporting not only supports a just culture, it also supports a culture of learning.

A culture of safety encompasses several elements:

- shared beliefs and values about health care delivery;
- recruitment and training with patient safety as a priority;
- organizational commitment to detecting and analyzing patient safety events including near misses;
- open communication about patient safety events (especially patient injury) within and outside the organization;
- the establishment of a just culture

(Kizer, 1999; IOM, 2004c).
Culture and Learning Systems

Feedback on actions taken and institutional learning

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Essential to sustain reporting and to build trust

Analyzing and Acting

Near-miss events should be coded so that trends and areas of concern can be more readily identified

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Coding is similar to adverse event/error coding with an emphasis on what failed or could have failed
Analyzing and Acting

Use descriptive codes to track the **specific parts of the medication use process** that are related to the near miss event

- Inventory/Purchasing/Stocking
- Prescribing
- Dispensing
- Administration
- Monitoring

Community-based Care - Nationally Recognized Excellence ™

Analyzing and Acting

Use descriptive codes to track the **contributing factors** that are event related

- Communications/handoffs/transitions of care
- Device use
- Policy/procedures
- Allergy defense
- Lack of standardization
- Incomplete/incorrect patient information
- Unsafe abbreviations
- Order transcription/interpretation

Community-based Care - Nationally Recognized Excellence ™
Analyzing and Acting

Use descriptive codes to track the cause (risk) and the action (catch)

What was at risk for failing?
What system or action stopped the failure?

Analyzing and Acting

How should HARM or SEVERITY codes be used?

No clear evidence on whether harm should be documented as the actual severity or potential severity.
Analyzing and Acting

Arguments to support using the actual severity:

Accurate statement of fact
Minimizes inter-rater bias
Minimizes use in “fear campaigns”
Easily integrates into AE reporting database as a “no harm” score

Analyzing and Acting

Arguments to support using the potential severity:

Magnifies the importance of the “good catch”
Motivates change based on emotions
“Gets attention”
Analyzing and Acting

Recovery

Use corrective action codes to track the actions taken to prevent or mitigate individual harm and actions taken to reduce future risk in the system.

- external reporting
- education/training
- change in drug products/vendors/brands
- changes in equipment/technology/programming
- changes in policies/procedures
- changes in personnel skills/staffing/skill mix
- patient interventions that changed drug therapy protocols
- monitoring procedures and plans
- use of antidotes/concomitant meds/pre-treatment meds
- changes in the level of care/location of care
Assessment Checklist

✓ All safety events, including near misses and “interventions”, are clearly defined, including those which are considered reportable

✓ The safety program promotes near-miss reporting (e.g., during leadership rounds)

✓ The near-miss reporting form simple and quick to use (e.g. less than 3 minutes)

Assessment Checklist

✓ Near-miss events are classified by contributing factors, system failures and catches, harm, and corrective action codes

✓ Near-miss event datasets are analyzed to gain qualitative insight (modeling), quantitative insight (trending) and to improve mindfulness/alertness (stories of specific risks)

✓ Reporters and staff receive continuous timely and relevant feedback
Summary

1. Develop a clear communication plan assuring staff understand the program expectations and the rationale for near miss reporting.

2. Consider using a theme for the near miss program reporting program to generate awareness and enthusiasm, e.g. "If it could happen to me, it could happen to you". "I thought this only happened to me"

3. Set high expectations for how the reports will be used and follow through. Assure staff see value in reporting.

4. Celebrate improvements from the reporting and reward high volume reporters with whatever works within your organization, e.g. recognition lunch, preferred work schedules, recognition plaques; rewards should nominal and more focused to recognize individuals or groups for reporting.

5. Communicate results broadly to staff and hospital leadership.

6. Periodically double-check that improvements stick and that they do not have unintended consequences.
Summary

7. Use a separate Pharmacy and Nursing Intervention Documentation systems to track miss-misses and good catches if this is more acceptable in your hospital.

8. Combine interventions with other near-miss reports when summarizing and analyzing events.

9. Establish corporate goals to increase overall reporting of unsafe conditions, staff alertness and safety mindfulness.

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