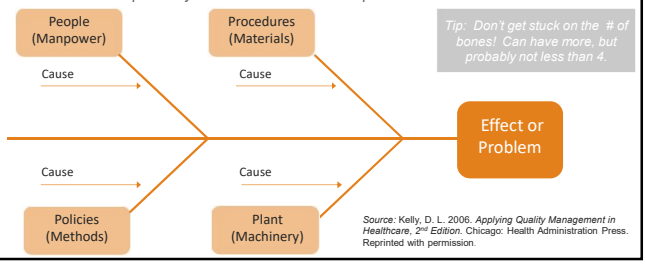
1

Fishbone Diagram
AKA: Ishikawa or Cause & Effect Diagram

A visual tool to help identify the cause and effect of a problem



Tip: Don't get stuck on the # of bones! Can have more, but probably not less than 4.

Source: Kelly, D. L. 2006. *Applying Quality Management in Healthcare, 2nd Edition*. Chicago: Health Administration Press. Reprinted with permission.

5 Rules of Causation: #2

Use specific, accurate descriptors
for what occurred,
rather than negative & vague words, such as:
poor inadequate wrong bad failed careless

INCORRECT:

- The manual is poorly written.

CORRECT:

- The pump's user manual was printed in an 8-pt font with no illustrations making it difficult to use; as a result, nursing staff rarely referred to it, increasing the likelihood that the pump would be programmed incorrectly.

3

CLINICAL QUALITY FELLOWSHIP PROGRAM

5 Rules of Causation: #1

Root Cause Statements must clearly show the cause & effect relationship

INCORRECT:

- A resident was fatigued.

CORRECT:

- Residents are scheduled up to 80 hours per week, which can lead to increased levels of fatigue, increasing the likelihood that dosing instructions would be entered incorrectly.

2

CLINICAL QUALITY FELLOWSHIP PROGRAM

5 Rules of Causation: #3

Human errors must have a preceding cause

INCORRECT:

- The resident selected the wrong dose, which led to the patient receiving an overdose.

CORRECT:

- Drug dosages in the EMR ordering system appear on the screen in closely packed rows, increasing the likelihood that the wrong dose could be selected, leading to a prescribing error and potential overdose.

4

CLINICAL QUALITY FELLOWSHIP PROGRAM

5 Rules of Causation: #4

Violations of procedure are not root causes, but must have a preceding cause

INCORRECT:

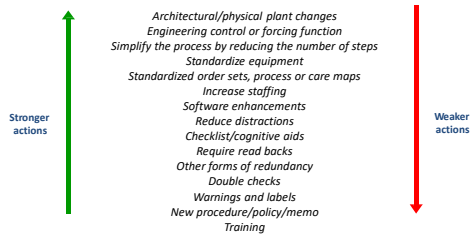
- The CT tech did not follow the procedure for preparing the contrast injection, causing the patient to receive an air bolus, resulting in a fatal air embolism.

CORRECT:

- Noise and confusion in the prep area, coupled with production pressure, increased the possibility that steps in the CT contrast injection protocol would be missed, resulting in the injection of air from using an empty syringe and a fatal air embolism.

CLINICAL QUALITY FELLOWSHIP PROGRAM

Hierarchy of Corrective Actions Taken in Response to an Adverse Event



Sources:

- *-Department of Veterans Affairs National Center for Patient Safety, Available at www.va.gov/ncps/CogAids/RCA/index.html*
- *-RCA² Improving Root Cause Analyses and Actions to Prevent Harm, National Patient Safety Foundation, 2015*

CLINICAL QUALITY FELLOWSHIP PROGRAM

5 Rules of Causation: #5

Failure to act is only causal when there is a pre-existing duty to act

INCORRECT:

- The nurse did not check for STAT orders every half-hour, which led to a delay in starting anticoagulation therapy, increasing the likelihood of a blood clot.

CORRECT:

- The absence of an assignment for RNs to check orders at specified times increased the likelihood that STAT orders would be missed or delayed, which led to a delay in therapy.

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