



The Just Culture
Community

Just Culture and Event Investigations

California
Patient Safety Action Coalition

CAPSAC

Presented by
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The Three Behaviors

Human Error

*Product of Our Current
System Design*

Manage through changes
in:

- Processes
- Procedures
- Training
- Design
- Environment

Console

At-Risk Behavior

*A Choice: Risk Believed
Insignificant or Justified*

Manage through:

- Removing incentives for
at-risk behaviors
- Creating incentives for
healthy behaviors
- Increasing situational
awareness

Coach

Reckless Behavior

*Conscious Disregard of
Unjustifiable Risk*

Manage through:

- Remedial action
- Disciplinary action

Discipline



Five Rules of Causation

1. Causal statements should clearly show the “cause and effect” relationship
2. Negative descriptors should not be used in causal statements (i.e., poorly, inadequately, etc...)
3. Each human error should have a preceding cause
4. Each “at risk” behavior/procedural deviation should have a preceding cause
5. Failure to act is only causal when there was a pre-existing duty to act



First Rule of Causation

Causal statements should clearly show the “cause and effect” relationship.

“Nurse Baker forgot to set pump for piggyback IVs after patient distracted her with a personal question.”

Many investigations do not explicitly show the cause and effect relationships – leaving the reader to infer what was causal and what was not



1. Causes and Effects are Clear

For Just Culture investigations--identify the contributing factor(s) leading to the behavior which led to error/event

$$(C + B = E)$$

Statement incomplete and not specific: The unit was short staffed and the nurse made a medication error.

Better: Two out of four nurses scheduled called in sick. Nurse Baker was in a hurry, didn't check patient's wristband, and administered 75 mg. of Demerol to wrong patient.



Second Rule of Causation

Negative descriptors (such as “poorly” or “inadequate”) should not be used in causal statements.

Many investigators will use negative descriptors to either assign blame or merely paraphrase a more specific explanation of an event.



2. No Negative Descriptors

Version 1: The nurse received inadequate IV pump training and made a programming error that led to a patient getting an overdose of morphine.

Better: Agency nurse was given a five minute “on the fly” orientation to pumps used in unit by nurse going off shift. Nurse made programming error that led to patient receiving an overdose of morphine.

The word “inadequate” does not describe what specifically was wrong with the training—so no help.

“Negative” descriptors reflect writer’s judgment or bias and can influence others, e.g., “careless, sloppy”



Third Rule of Causation

Each human error should have a preceding cause.

“Nurse Smith and Nurse Jones were distracted by a surgical light dropping to the floor and lost count of the sponges during Mrs. Rivera’s procedure.”

Many investigations do not explain why human errors have occurred, making it hard to identify risk reduction strategies.



Fourth Rule of Causation

Each at-risk behavior/procedural deviation should have a preceding cause.

Example: “Nurse Williams failed to follow 2 ID policy.”

Better: “Nurse Williams had 8 patients assigned to her, believed that she knew her patients, and did not check patient’s wristband.”

Many investigations do not explain why violations have occurred, making it hard to identify risk reduction strategies.



3. Each human error has preceding cause

Safe Choice Edit

Click here to find Name Person (Consoled/Coached/Counseled): Phone:

Type:
At Risk Behavior
Knowingly Unsafe Behavior

Safe Choices Manager Action

No Action Taken
 Consoled, further action required
 Consoled, no further action required

Factors increasing the likelihood of human error:

- Staff knowledge or skill
- Other staff performance shaping factors (e.g. stress, fatigue)
- Unaware of procedure or protocols (e.g. medication administration)
- Communication (e.g. between staff, between shifts)
- Equipment or tools (e.g. complex, confusing)
- Clinical products (e.g. drugs, stint)
- Patient factors (e.g. physiology, compliance)
- Environment/facilities (e.g. room availability)

Short description of the human error:

Rule 3 – each human error must have a preceding cause

4. Each violation has a preceding cause

Safe Choice Edit

Click here to find Name Person (Consoled/Coached/Counseled): Phone:

Type:
Human Error
Knowingly Unsafe Behavior

Safe Choices Manager Action

No Action Taken
 Coached, further action required
 Coached, no further action required

Factors involved in the at-risk behavior:

- Low perception of risk
- Difficult to comply with rule
- Other priorities contributing to the non-compliance with

Frequency of the at-risk behavior:

- Individual Norm
- Common practice/local group norm

Short description of the at-risk behavior:

Rule 4 – each violation must a preceding cause



Fifth Rule of Causation

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

Many investigations mix causes and prevention strategies into one narrative – leaving the reader to guess at the cause and effect relationships.



5. Did the individual have a duty to act?

--Requires an understanding of the staff members' roles & responsibilities

“The transporter hooked up the oxygen to the medical air by mistake.”

Does the transporter have a duty to hook up the oxygen?
What is their duty?



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Understanding Causation



Causal Language

- Root Cause
- Direct Cause
- Probabilistic Cause
- Correlation



Root Cause

The initiating cause of a causal chain

(Usually a root cause is the earliest step in an causal chain where an intervention could reasonably be implemented to change the outcome)

“A” initiated a causal chain resulting in “B”

Typically a “systems” issue, including management decisions, resources, training, etc....



Direct Cause

The cause is virtually certain to result in the effect

“A” directly caused “B”

Example: The technician pulled the wrong part and installed it.



Probabilistic (Contributory) Causes

The cause increases the likelihood of the effect
“A” increased the likelihood of “B” occurring

“Nurse Rivera was fatigued after working two eight hour shifts back-to-back, increasing the likelihood of an error.”



Two Meaningful Types of Cause

Direct

- Cause is virtually certain to result in the effect
- Takes the form “A caused B”
- Example: The pharmacy mis-stocking the drug cabinet caused the wrong drug to be given to the patient.

Probabilistic

- Cause increases likelihood of its effect
- Takes the form “A increased the likelihood of B”
- Example: The technician being distracted increased the likelihood that he would overlook the error”



Correlation \neq Cause

- Cause – A link that one condition is a contributor to the presence of another condition.

“63% of people killed in traffic accidents are not wearing seat belts.”

- Correlation or association – An observed co-occurrence of two or more conditions.

“98.5% of people involved in traffic accidents are wearing seat belts.”



Building Cause and Effect Diagrams



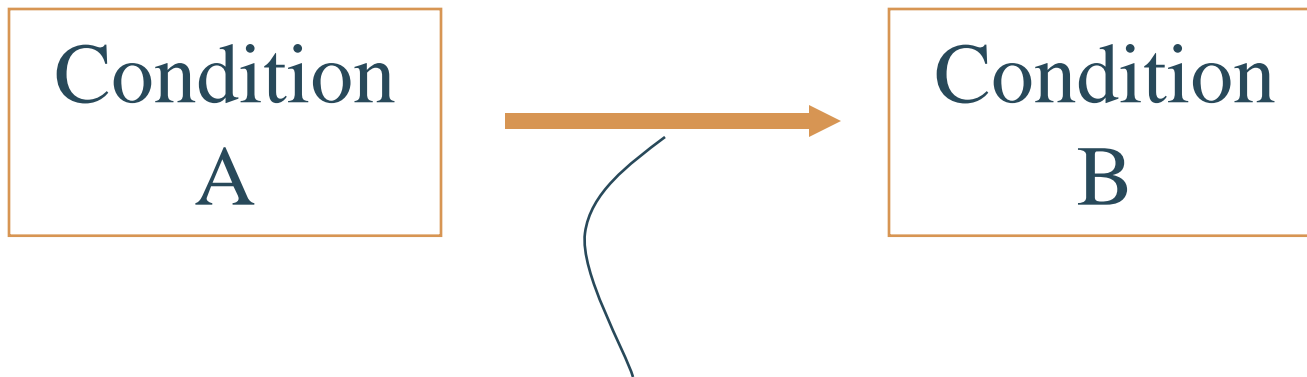
The Process

- Start with outcome(s) on right side of page
- Work right to left identifying causal links
- One-to-one, one-to-many, and many-to-one are all allowable

Do not put non-causal data on the cause and effect chart



The Basic Structure



The causal link



“Cause and Effect” (IV pump not started)



 The Undesired Outcome  Human Error  Behavioral Choice

 A Cause of the Human Error  A Cause of the Behavioral Choice



Making Good Causal Statements

- What information do you have?
- What information is duplicative?
- What information is contradictory?
- What gaps exist?
- Create the “Causal Statement”

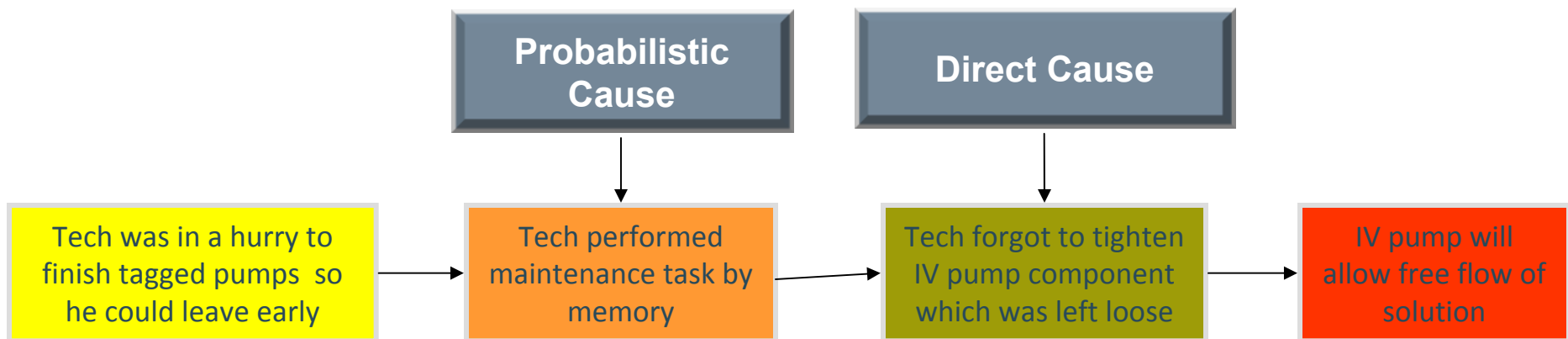


Scenario One: IV Pump Maintenance

A biomedical technician was repairing several IV pumps that had been “tagged” over the weekend. Policy required that each time a machine was repaired that the manual was to be consulted and each step followed as described. Instead, the tech performed the task from memory. During the final check he discovered that one of the pumps had a loose mechanism that allowed for free flow of solution.



Cause and Effect Diagram (Scenario 2 – IV pump maintenance)



■ The Undesired Outcome ■ Human Error ■ Behavioral Choice

■ A Cause of the Human Error ■ A Cause of the Behavioral Choice

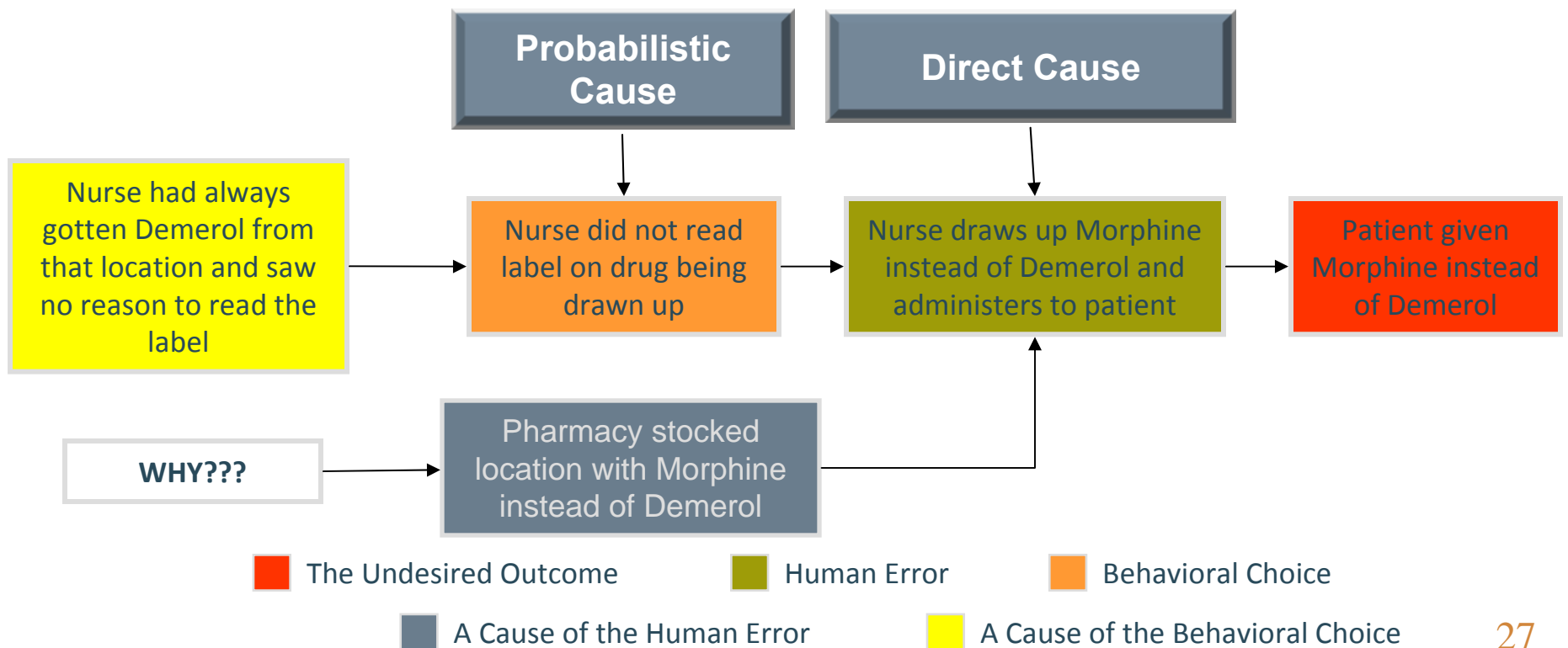


Scenario Two: Medication Error

The nurse goes to the medication room to retrieve Demerol for her patient. She reaches into the bin and grabs the vial in the bottom right corner of the drawer. Next, she draws up the medication and administers it to the patient. The pharmacy had made a change and placed Morphine in the slot where the Demerol used to be kept. The nurse actually gave the patient Morphine. The patient had an allergic reaction and coded. Although they were able to revive him, he suffered anoxic injuries that resulted in right-sided paralysis.



Cause and Effect Diagram (Scenario 3 – Medication Error)





Knowing You Have the Right Cause— The Checklist

- Do you know what happened?
- Do you know what normally happens?
- Do the causal statement(s) explain the difference?
- Are the errors and behaviors explained?
- Do the causal statement(s) make sense?



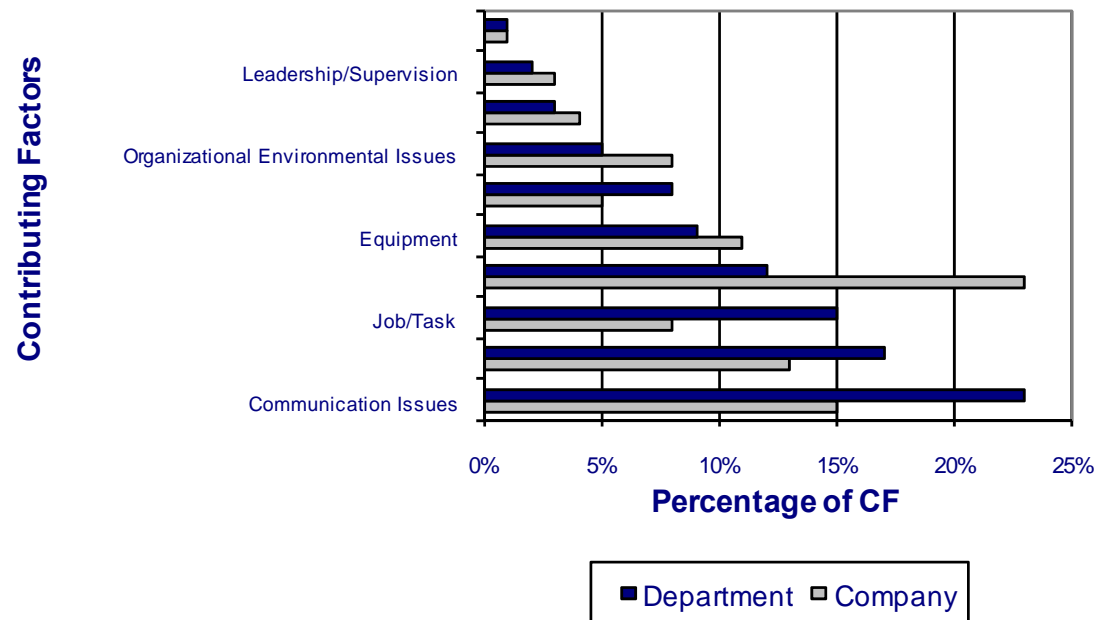
Finishing the Review:

**Are the Right Actions Being Taken to
Address the Risks Identified?**



How Preventions Are Developed

XYZ Company Contributing Factors - 2000
Company vs. Department



80% of Preventions should come from systemic data analysis



The One Stop Rule:

Leave Systemic Causes to Multiple Event Analysis



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Thank You!

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