

## Cultivating Safety in the Pharmacy

### Just Culture and At-Risk Behavior

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The speaker has no conflicts of interest to disclose.



## Objectives

- Describe the link between Just Culture and Error Prevention.
- Differentiate between human error, at-risk behavior, and reckless behavior.
- Identify strategies to reduce at risk behavior.



## 1999 - Institute of Medicine Report - To Err is Human

- Watershed moment for our approach to building a safer health system
- Majority of medical errors do not result from individual recklessness or the actions of a particular group
  - “not a bad apple problem”
- More commonly caused by faulty systems, processes, and conditions that lead people to make mistakes



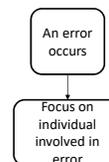
## Just Culture

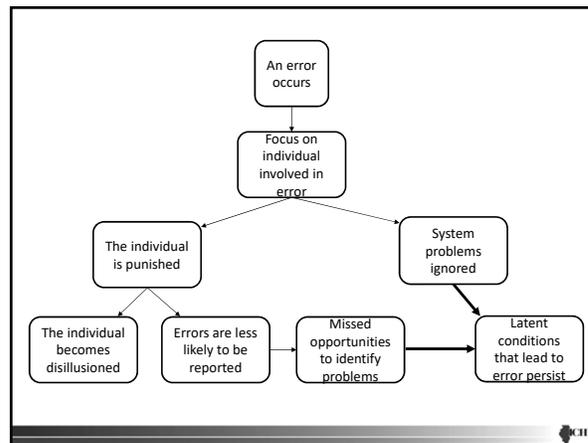
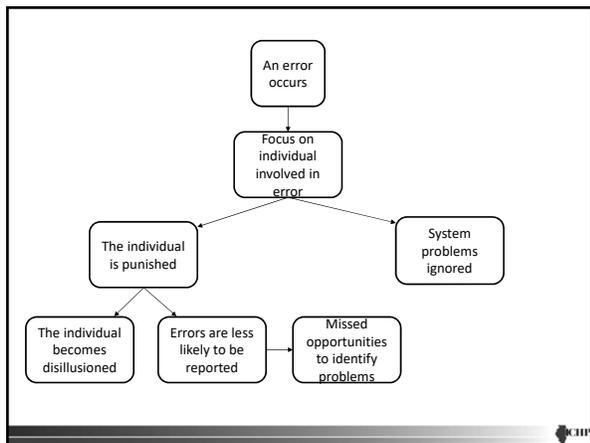
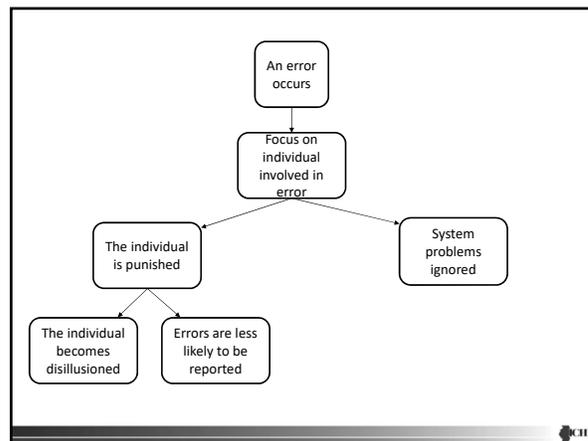
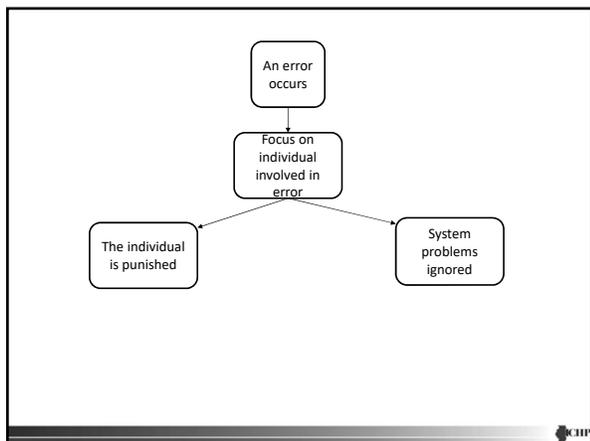
- What
  - A system of justice that provides a Just balance between human and system accountability
- How
  - Recognition of human fallibility
  - Recognition human tendency to engage in risk
  - Focus on system, rather than the individual
  - Provides a framework for error investigation and fair disciplinary action
- Why
  - Maximizes safety of the health system
  - Promotes fairness to individual healthcare providers



## Just Culture and Human Fallibility

- People makes mistakes (To Err Is Human)
- Punishing individuals for making mistakes does not make the system safer
  - It makes the system less self-aware





## The Single Greatest Impediment

The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes.

-Dr. Lucian Leape  
 Professor of Public Health, Harvard University in testimony before congress on patient safety.

## An Rx for Prednisone 5 mg daily...

| Name                | Strength | NDC Num.  | Pack   | Distributor | OS | Avail. | Obs. Dr. | Deactive | Specialty | Product |
|---------------------|----------|-----------|--------|-------------|----|--------|----------|----------|-----------|---------|
| PREDNISONE 5MG TABS | 5mg      | 30054-474 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30053-533 | 300 EA | PARF-PARK   | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30143-973 | 300 EA | WESTWARD    | AB | 709.0  |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-001 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30143-973 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30148-017 | 300 EA | LACOSTA     | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-001 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-001 | 300 EA | WESTWARD    | AB | 211.0  |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-872 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-472 | 300 EA | WESTWARD    | AB | 0.0    |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30054-472 | 300 EA | WESTWARD    | AB | 17.0   |          |          |           |         |
| PREDNISONE 5MG TABS | 5mg      | 30053-533 | 300 EA | PARF-PARK   | AB | 0.0    |          |          |           |         |

...filled as prednisone 50 mg daily

### An Rx for Prednisone 5 mg daily...

...filled as prednisone 50 mg daily

### Consider Alternative Approaches

- **Focus on the individual**
  - No consideration of error-prone product arrangement
  - Missed opportunity to address latent condition
- **Focus on the system**
  - Why are products arranged in this way?
  - Is it possible to arrange them in ascending order, according to mg strength?
    - Errors with other products could also be prevented

### Correcting Latent Conditions

**Before**

|  |
|--|
| morphine (bulk btl) 2mg/1mL 100mL soln |
| morphine (bulk btl)20mg/1mL 100mL soln |
| morphine "EXTENDED" release 100mg tab  |
| morphine "EXTENDED" release 15mg tab   |
| morphine "EXTENDED" release 30mg tab   |
| morphine "EXTENDED" release 60mg tab   |

### Correcting Latent Conditions

|  |  |
|--|--|
| <b>Before</b>                          | <b>After</b>                                     |
| morphine (bulk btl) 2mg/1mL 100mL soln | morphine (bulk btl) 2mg/1mL 100mL soln           |
| morphine (bulk btl)20mg/1mL 100mL soln | morphine "EXTENDED" release 100mg tab            |
| morphine "EXTENDED" release 100mg tab  | morphine "EXTENDED" release 15mg tab             |
| morphine "EXTENDED" release 15mg tab   | morphine "EXTENDED" release 30mg tab             |
| morphine "EXTENDED" release 30mg tab   | morphine "EXTENDED" release 60mg tab             |
| morphine "EXTENDED" release 60mg tab   | morphine (high conc bulk btl) 30mg/1mL 30mL soln |

### Different Approaches, Different Outcomes

|   |   |
|---|---|
| <p><b>Shame and Blame</b></p> <ul style="list-style-type: none"> <li>• The individual involved experiences tremendous guilt                     <ul style="list-style-type: none"> <li>– Reduced satisfaction</li> <li>– Stigmatized</li> </ul> </li> </ul> | <p><b>Just Culture</b></p> <ul style="list-style-type: none"> <li>• Staff are more likely to recover after making a mistake                     <ul style="list-style-type: none"> <li>– Also more likely to self report</li> </ul> </li> </ul> |
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## Different Approaches, Different Outcomes

### Shame and Blame

- The individual involved experiences tremendous guilt
  - Reduced satisfaction
  - Stigmatized
- The root cause are not identified
  - Latent conditions for error remain
- Next time the error happens, there is a reluctance to report
  - Remember what happened last time?

### Just Culture

- Staff are more likely to recover after making a mistake
  - Also more likely to self report
- Faulty processes, latent conditions that lead to error are discovered
  - Corrective actions can be implemented
- Error reporting is encouraged
  - You don't feel like someone is getting fired every time you report an error

## Which of the following correctly describes the link between Just Culture and error prevention?

- By identifying and disciplining error-prone individuals, we can prevent errors and protect patients
- By focusing on the system, rather than the individual, we can better correct conditions that lead to error
- A Just Culture promotes error reporting, making the health system more self-aware of its risks
- Both B and C

Slips, At-Risk Behavior, and Recklessness

## DIFFERENTIATING ERRORS

## Human Error Differentiation

- Basic Human Error – Slips, lapses, mistakes
- At-Risk Behavior – **Behavioral choice** that increases risk where risk is not recognized, or is mistakenly believed to be justified
- Recklessness – **Behavioral choice** to consciously disregard a substantial and unjustifiable risk

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## Slips, Lapses, Mistakes

- Grabbing the wrong bottle (slip/lapse)
- Clicking the wrong button (slip)
- Measuring the wrong volume (mistake)
- Entering the wrong number (slip, mistake)
- Failing to catch an error when checking (lapse)

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## Humans and At-Risk Behavior

- The arc of human behavior bends towards risk taking
  - Incentives drive the tendency to take risky shortcuts
  - Positive reinforcements are immediate, predictable
  - Negative outcomes are removed, distant, unlikely



## Consider Your Own Driving...

- How many of you have sent or read a text message while driving?
  - What percentage of the time did you get in an accident?



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  - By more than 10 mph? 20 mph?



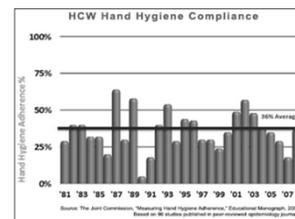
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  - What percentage of the time did you get in an accident?
- How many of you have exceeded the speed limit?
  - By more than 10 mph? 20 mph?
    - How often did it help you get someplace on time?
    - How often does it lead to an accident?



## Healthcare is Not Different...

- 1822 – A French pharmacist discovered that a dilute chloride solution could work as an antiseptic
- We've been trying to get people to wash their hands ever since



**Chicago Tribune**

## Pharmacies miss half of dangerous drug combinations

By Sam Roe, Ray Long and Karlos King - Contact Reporters  
Chicago Tribune  
DECEMBER 15, 2016, 9:44 AM

**T**he Tribune reporter walked into an Evanston CVS pharmacy carrying two prescriptions: one for a common antibiotic, the other for a popular anti-cholesterol drug.

Taken alone, these two drugs, clarithromycin and simvastatin, are relatively safe. But taken together they can cause a severe breakdown in muscle tissue and lead to kidney failure and death.

When the reporter tried to fill the prescriptions, the pharmacist should have warned him of the dangers. But that's not what happened. The two medications were packaged, labeled and sold within minutes, without a word of caution.

The same thing happened when a reporter presented prescriptions for a different potentially deadly drug pair at a Walgreens on significant Mile.

Roe, S., Long, R., King, K. (2016, Dec 15). Pharmacies Miss Half of Dangerous Drug Combinations. Chicago Tribune, p. 1. Retrieved from <http://www.chicagotribune.com/news/watchdog/druginteractions/15-drug-interactions-pharmacy-miss-20161215-story.html>

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## Reckless Behavior

- Like at-risk behavior, this is also a behavioral choice
- But...Individual is forwardly conscious of risk
  - Risk is substantial
  - Individual does not believe the risk is justified, but takes it on anyway

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## Reckless Behavior

- Like at-risk behavior, this is also a behavioral choice
- But...Individual is forwardly conscious of risk
  - Risk is substantial
  - Individual does not believe the risk is justified, but takes it on anyway
- Goals of behavior are self-centered rather than patient-centered, organization-centered
  - Quickly skipping through drug interaction alerts to fill prescriptions more quickly.
  - vs.
  - Reviewing a drug interaction alert...consciously recognizing it's substantial risk...deciding not to take action because your lunch break is near and you are very hungry.

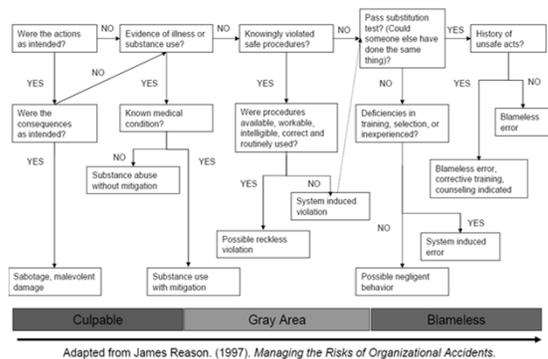
## Which of the following regarding types of human error is true?

- A. When engaging in at-risk behavior, individuals are not often fully conscious of the risk they are taking, or they feel the risk to be justified
- B. At-risk behavior and recklessness are both behavioral choices
- C. Slips and lapses involves conscious disregard of substantial risks
- D. Both A & B

## Just Culture and Accountability

- Just Culture does not mean that individuals are not accountable for their actions
  - Shifts focus from the individual to the system
- Reckless or malicious acts should be disciplined
- Other high risk behavior, especially if repeated, may also be disciplined
  - Critical for all staff understand the difference
  - Punished for making mistakes vs. disciplined for not following appropriate work procedures

## Just Culture – Managing Unsafe Acts



## Just Culture and Accountability

|                     | Human Error  | At-Risk Behavior   | Reckless Behavior   |
|---------------------|--|--|---|
| Description         | Slips, lapses, mistakes  | A behavioral choice: risk not fully recognized or thought to be justified  | A behavioral choice: Fully conscious disregard of substantial risk                    |
| Management approach | Console  | Coach  | Discipline  |
| Management strategy | <ul style="list-style-type: none"> <li>• Change processes</li> <li>• Modify workflow</li> <li>• Add double check</li> <li>• Modify environment</li> <li>• Modify design</li> </ul> | <ul style="list-style-type: none"> <li>• Investigate and remove incentives for at-risk behavior</li> <li>• Create incentives for safe behaviors</li> <li>• Increase mindfulness</li> </ul> | <ul style="list-style-type: none"> <li>• Remediation</li> <li>• Punishment</li> </ul> |

## You May Notice...

- At-risk behavior is very frequently involved when errors occur
  - An alert was overridden
  - Two identifiers weren't checked
  - A Bar-code scanning workaround was applied
  - ...Other safe procedures weren't followed

## You May Notice...

- At-risk behavior is very frequently involved when errors occur
  - An alert was overridden
  - Two identifiers weren't checked
  - A bar-code scanning workaround was applied
  - ...Other safe procedures weren't followed
- Managing at-risk behavior becomes very important

At-Risk Behavior

A behavioral choice: risk not fully recognized or thought to be justified

---

Coach

- Investigate and remove incentives for at-risk behavior
- Create incentives for safe behaviors
- Increase mindfulness

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### At-Risk Behavior – Ignoring Drug Interaction Alerts

- **Remove rewards for risky behavior**
  - Are there incentives for efficiency that discourage thoughtful review of drug interaction alerts?
- **Create incentives for safe behavior**
  - Track performance on drug interaction interventions
- **Increase mindfulness**
  - Share examples of good catches
  - Include serious drug interactions in newsletters/correspondence
  - Evaluate work environment to promote mindfulness
  - Encourage a culture of safety intolerant of risk



### Which of the following is a strategy for managing at-risk behavior

- A. Creating a double check for a mistake-prone process
- B. Disciplining individuals when a shortcut leads to an error
- C. Removing incentives for at-risk behavior
- D. All of the above



### Conclusions

- A Just Culture improves the safety of our healthcare system while maintaining accountability
- Differentiating between basic human errors, at-risk behaviors, and recklessness is important for determining the correct response to errors
- At-risk behaviors are best managed through revising incentive structures and encouraging mindfulness of risk



**Thank You!**

Have a Safe Day 😊

