

Safe Systems, Safe Practice, Safe Patients – The Healthcare Alliance Safety Partnership (HASP) www.texashasp.org

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Abstract

The Healthcare Alliance Safety Partnership (HASP) adapts the airline industry's highly successful safety investigation process to healthcare. The pilot program is the first non-punitive error reporting system for nurses in the United States. It is a unique partnership of healthcare institutions and the Board of Nurse Examiners for the State of Texas. HASP offers an innovative approach that examines both human performance and system factors as the causes of errors, stimulates a larger intervention based upon solutions to those factors, and also provides protection to the public by addressing error-prone healthcare circumstances.

Recognizing that a cascade of contributing factors leads to an error or process deficiency, HASP combines the airline's highly detailed safety investigation and change processes with investigation techniques from other high reliability industries (i.e., petrochemical, nuclear power), medication practices, and traditional methods of medical event analysis. The purpose of the investigation is to identify gaps and inadequacies within the system and to take proactive action to ensure a like error does not recur.

The HASP process is three steps:

Discovery,
Analysis, and
Resolution

A comprehensive assessment of an event or error that is attributed to a nurse is developed by an objective third party and includes an analysis of the goals impacted, a timeline, and a graphic representation of causative factors. This information is gathered through a variety of techniques including:

- structured individual interviews
- record reviews
- policy reviews
- cognitive walk-throughs
- physical inspection of work spaces
- observation of work processes
- literature reviews
- human factors analysis, and
- a Cause Map™

The systematic analysis is presented to an Event Review Committee made up of representatives from partner institutions and the regulatory board. Systems and human performance factors that contributed to the event are identified and classified using the Eindhoven Classification model modified for healthcare. A plan of action is developed to address the contributing factors to prevent recurrence of the error, requiring a response from both the nurse and the institution, to address those factors.

Consistent with the mission of the Board of Nurse Examiners for the State of Texas, healthcare institutions, and the systems focus of recent Institute of Medicine reports, HASP seeks to provide protection to the public while also documenting the role of systems and human performance factors in error occurrence. Utilizing a broad systems review, a multiplicity of causal factors can be identified and responded to in a joint effort to provide safe systems, safe practice and safe patients.

Methodology

The HASP program:

- examines human performance and systems factors as causal agents of medical events
- stimulates a holistic intervention that addresses causal factors
- provides increased protection to the public and professional registered nurses
- shares best practices / lessons learned with the public via the project website, www.texashasp.org.

Eindhoven Classification Model:

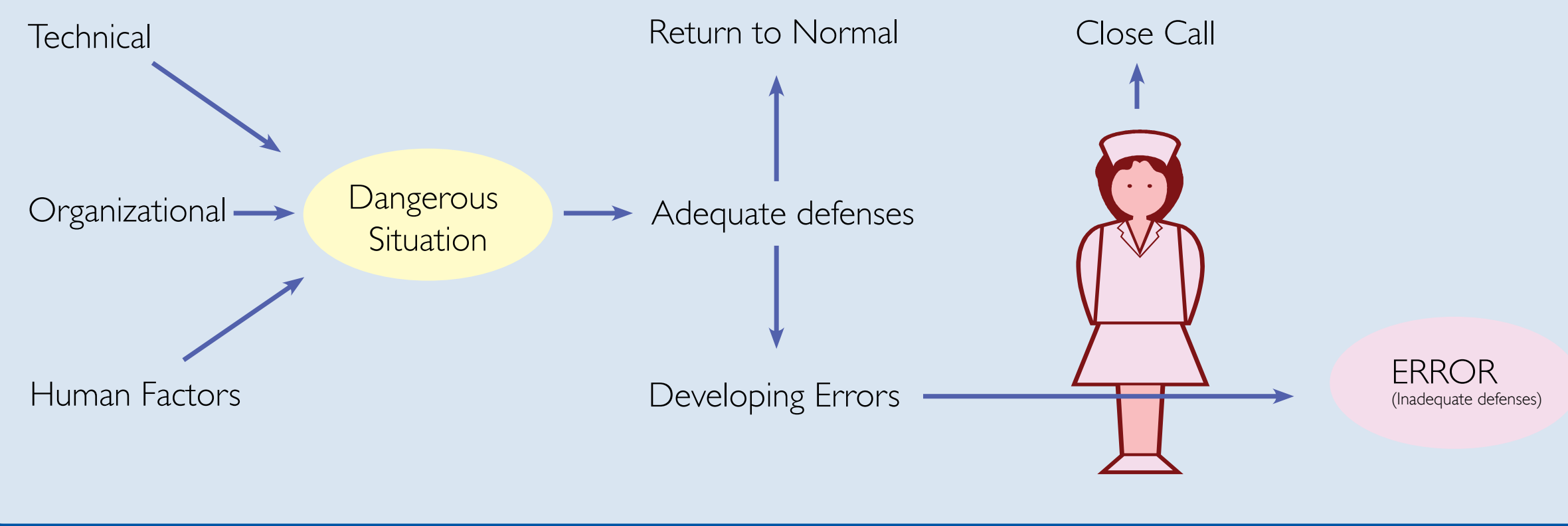
A medical event classification and investigation structure

The Eindhoven Classification model has been modified for use in healthcare and applied successfully to medical event reporting systems as a systematic means of investigating root causal factors and recovery efforts. The HASP program uses the model to systematically guide an error investigation.

The model examines errors from three perspectives:

- Technical
- Organizational
- Human Factors

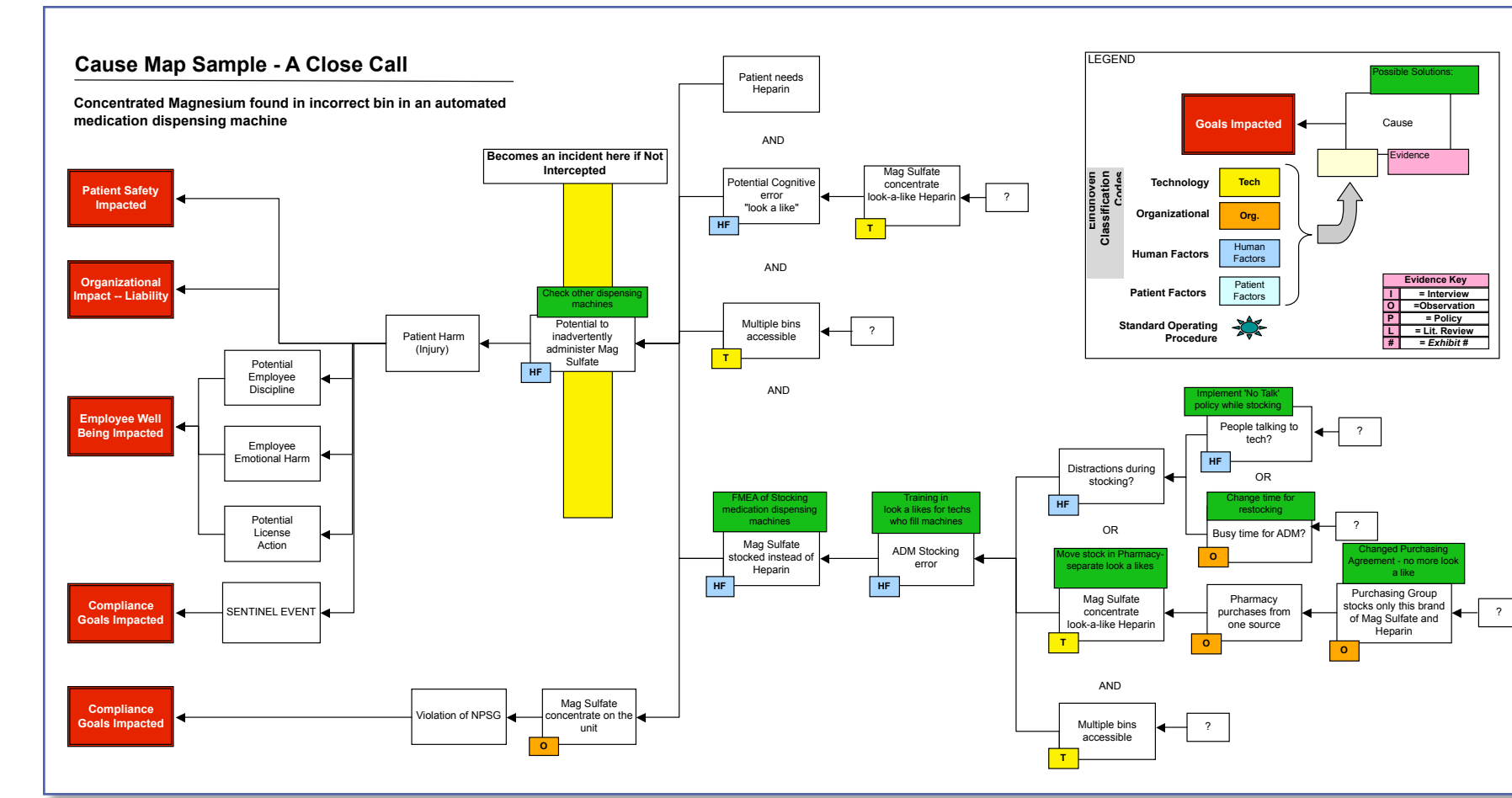
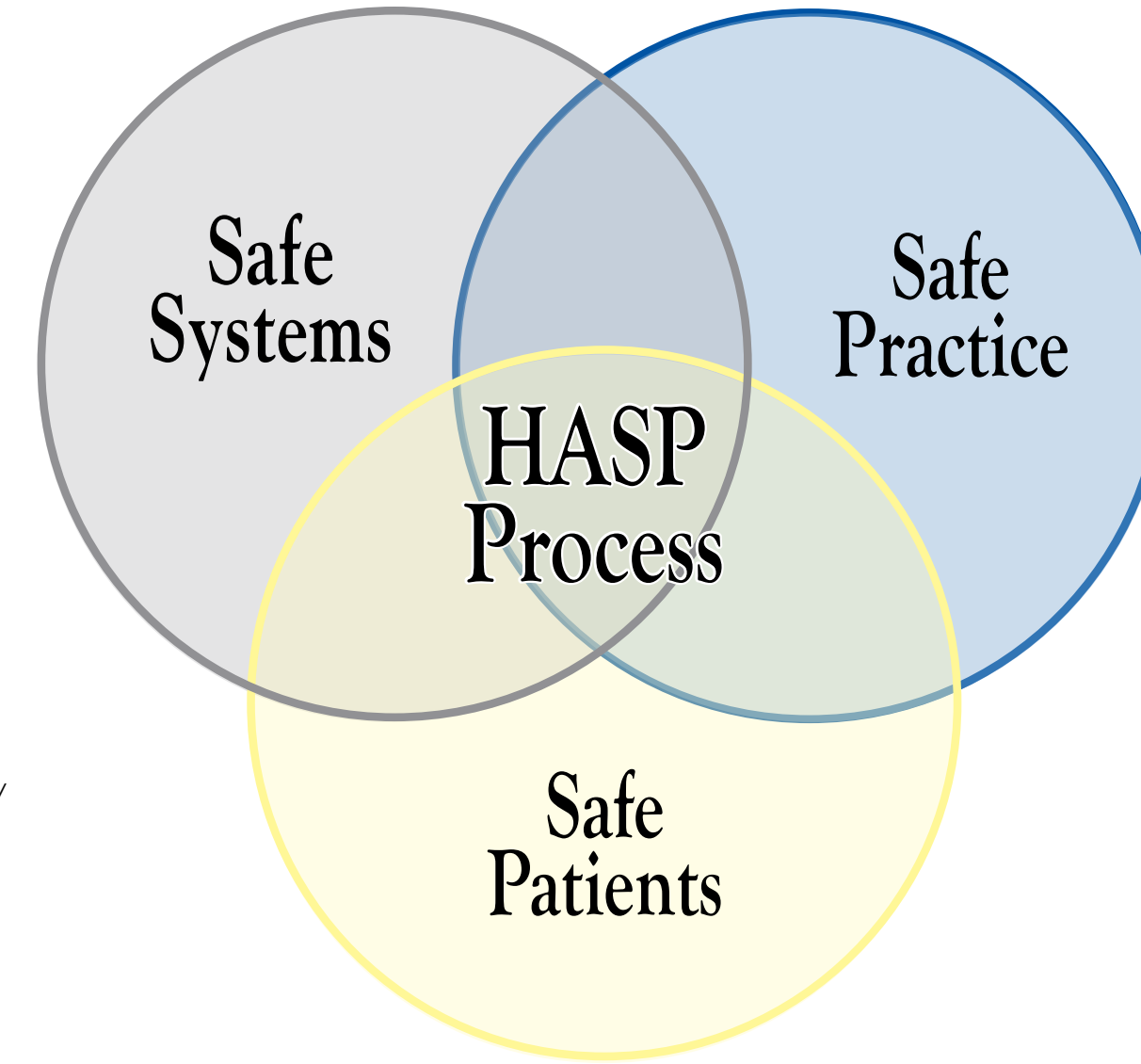
Eindhoven Classification by Van Der Schaaf - modified for healthcare



Process

- After an error is discovered and the patient cared for, HASP requires that an event / incident report be filed per institutional policy. The report may come from:
 - the nurse who was involved in the error;
 - that nurse's institutional peer review committee, or
 - the Board of Nurse Examiners for the State of Texas.
- A nurse analyst examines the report to gather factual information about the event, identifying the systems and human factors involved in the event.
- Based on the information obtained, a Cause Map™ is developed.
- The data is presented to the Event Review Committee for review and recommendations.
- Action plans are designed for both the individual nurse and for the institution.
- Successful completion of the action plan results in a report to the Board of Nurse Examiners for the State of Texas with no actions taken against the registered nurse's professional license.

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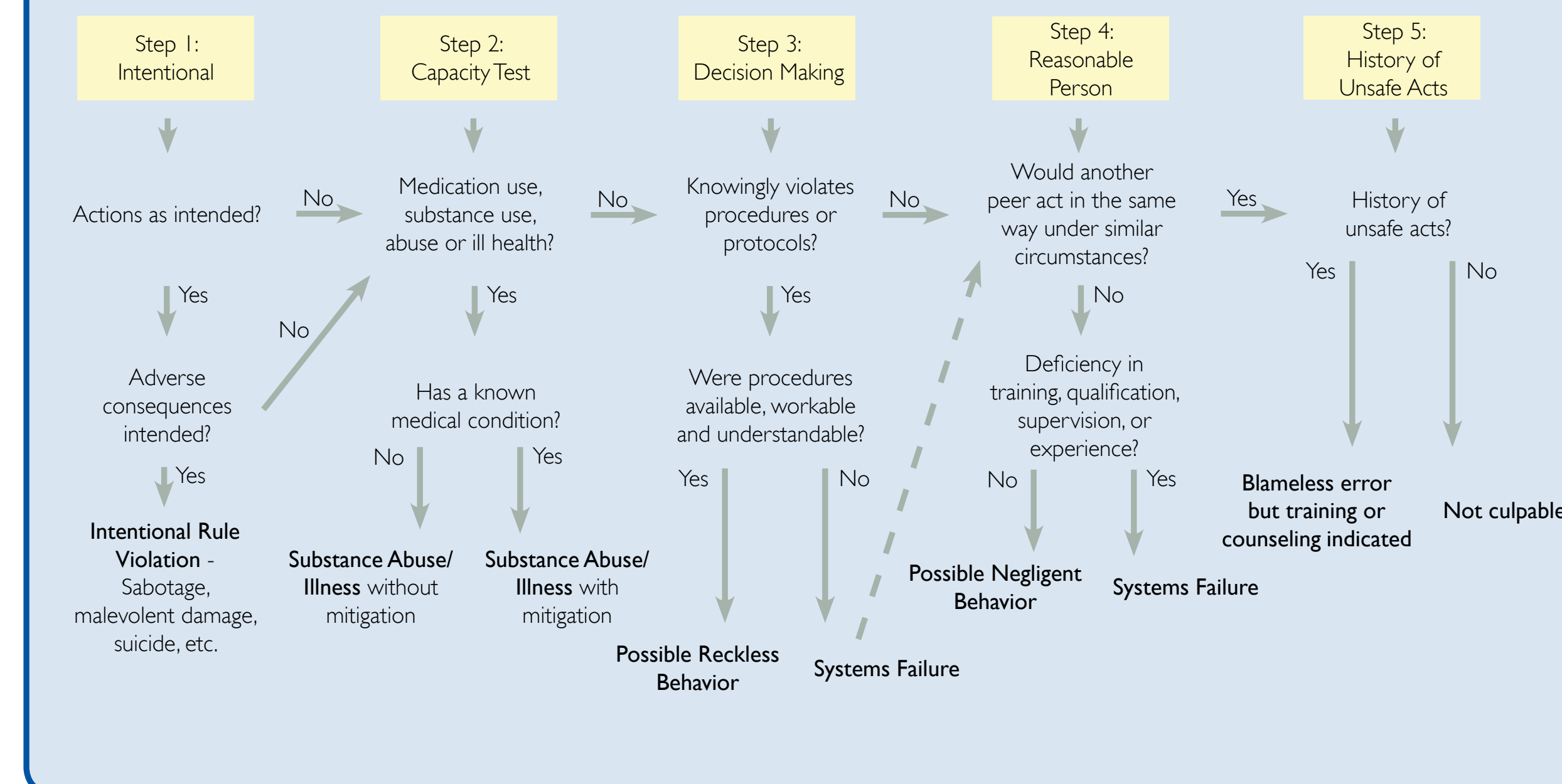


Cause Mapping™: A Systems Approach to Cause Analysis

The objective of any investigation of a failure is to determine the optimal solution. Cause Mapping™ is a structured, disciplined, visual methodology for doing just that – in an objective, rigorous way. It encompasses the traditional Root-Cause Analysis method, the "Swiss cheese" model of failure, and the "Five Whys" approach.

Cause Mapping™ combines two scientific approaches: systems thinking and cause-and-effect. Subject matter experts of the system participate in the analysis and creation of a Cause Map™. This approach provides the foundation for organizational learning and a springboard for real change.

Reason's Culpability Decision Tree



Reason's Culpability Decision Tree

In its quest to create and sustain cultures of safety, the Institute of Medicine called upon the National Council of State Boards of Nursing to develop and design standardized processes to better distinguish human error from willful negligence and intentional misconduct. The report suggests that focusing on both human performance and systems factors allow for a better understanding of why errors occur and contribute to the development of more robust interventions, thus increasing safety for both the patient and practitioner. HASP utilizes James Reason's model for determining systems vs individual culpability is used to create a remediation action plan for the institution and the nurse.

HASP - Year One Review

- 10 cases submitted
- 5 cases reviewed (1 involving two RNs) = Total 6
- 4 cases did not meet criteria

Contributing Factors	1 & 2	3	4	5	6
Technical	2	8	5	23	4
Organizational	48	7	12	32	26
Human	14	12	7	24	14
Patient	11	1	6	9	8

The HASP process identifies areas for individual and organizational improvement, and recommends interventions designed to increase the safety of patient care in Texas based on principles of human factors in complex systems.

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- Cause Mapping™ is a registered trademark of ThinkReliability in Houston, TX. Visit their Web site at www.ThinkReliability.com
- The Just Culture Community at www.JustCulture.org
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