Improving Mass Casualty in the Emergency Department: A Quality Improvement Project

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Problem and Background

What is a mass casualty?

What is current problem?

What is the background?

Interventions.

Do the interventions promote patient care?

Examples of Mass Casualty Events

Objectives

Educate the staff regarding mass casualty

Update the current policy and procedures

Provide education to the general public

Talk with the executive leadership team about sustainability

Talk to the entire department about the next steps

Aims

1. Update current hospital policies based on the AHRQ's mass casualty preparedness guidelines.

2. Administer a pre-test and post-test that will measure knowledge competency with a goal of all employees scoring a 100% on the post-test.

3. Improve employee compliance with current national standards regarding mass casualty readiness in the Emergency Department within a five-week implementation. At the end of the training, the goal is to have all emergency department staff participate in the mock scenarios.

Problem Statement

A hospital that is not prepared for a mass casualty event can cause "meaningful disruption, failure, inadequacy, distress, confusion, or other dysfunction in a healthcare service delivery system that adversely affects patients, staff, or the system as a whole, or that prevents care from reaching its full potential.

Project Question:

Do emergency department staff and the executive leadership team (P) who have participated in the new training modules and hands-on experience (I) reveal a higher post-test compared to the pre-test (C), which will ensure uninterrupted patient care, continuity of community care, ensure staff safety, and protect the current supply chain (O) within a five-week project timeframe (T)?
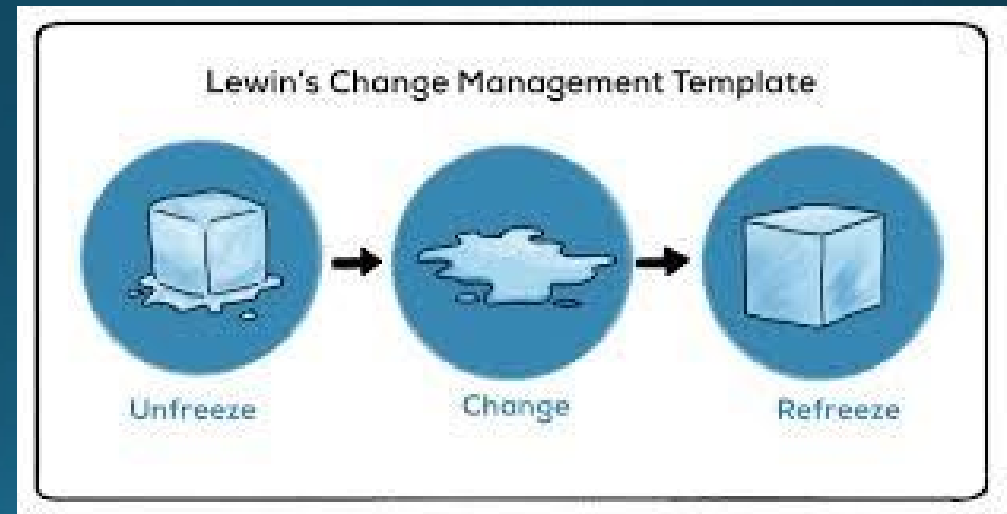
Methodology

Why was a quality improvement plan chosen?

Design.

Dr. Kurt Lewin.

Nursing foundation.

Population

Patients, both indirect and direct

Employees

Stakeholders

Public/Community

Other hospitals

Setting

Rural.

No specialized services.

Transfer/Transport out.

PCP vs. ER.

Interventions

Pre-test

Formal education

Online module found on the INTRAnet

Post-test

Mock scenario

Ethics/Human Subjects Protection

What does this mean?

Why is this topic so important?

Who is involved in this topic?

TUN IRB panel/process.

Results/Findings

Pre-test and where the questions came from.

Results from pre-test.

Statistical test used and mean score of the pre-test.

Standard deviation and explanation.

Table 1

Knowledge Scores Pre and Post Education Session		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-Test	100	60	0.00000	0.00000
Pair 2	Pre-Test	73	60	13.57	1.75

Results/Findings (continued)

More information related to the paired t-test.

Confidence rate.

Table 2

Paired Samples Test Results – Paired T-Test

| | | Paired Differences | | | | | | | Significance | |
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	Pre-test	-27.00	60	1.75151	-30.50	-23.50	-15.42	59	<.001	<.001

Results/Findings
(Continued)

Debriefing information.

The 4 options for the post mock scenario.

Score of the post mock scenario.
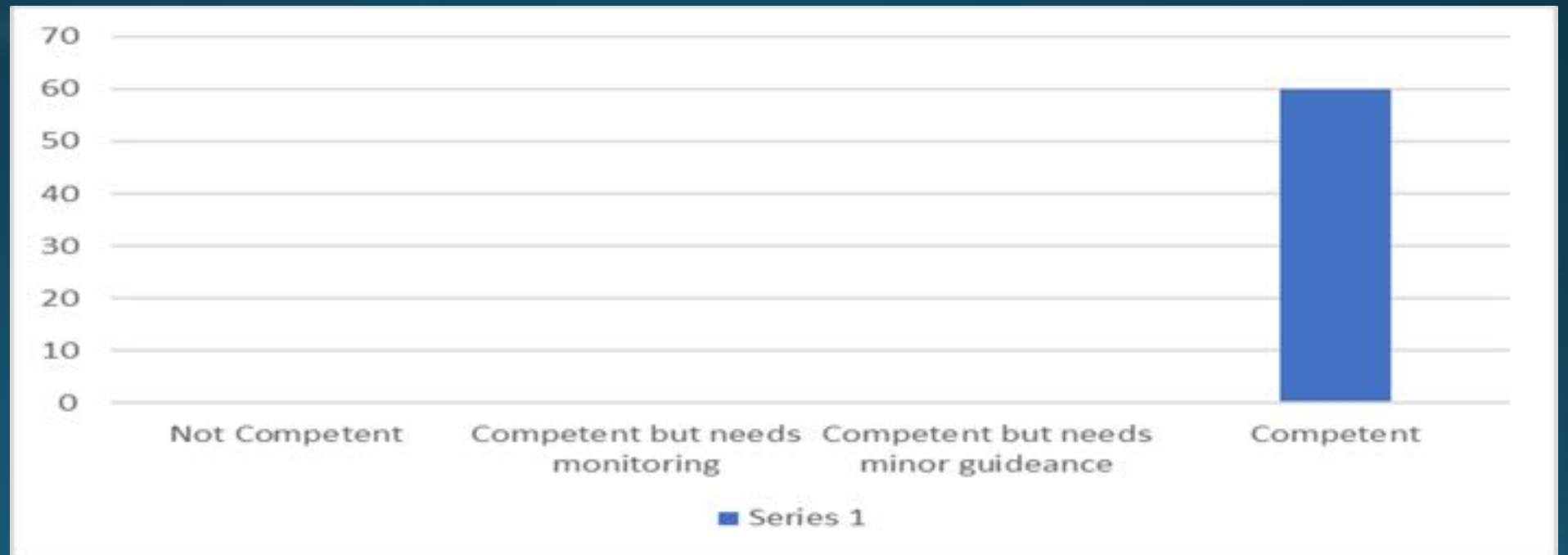
Discussion with Key Conclusions

What happened during the five-week implantation?

Sustainability.

Certified Trauma Nurse.

Next step for the hospital.

Information about how the policy was changed.

Other units.

Discussion with Key Conclusions (continued)

Poster presentations.

Public Relations Department.

Local and Regional conferences.

Local schools (both nursing the physician).

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Questions?

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