

# Evolution to interprofessional collaboration

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## Disclosures (AMB)

Clinical research

- GSK (COPD)
- Boehringer-Ingelheim (Pulmonary Fibrosis)

This presentation does not discuss those disease states

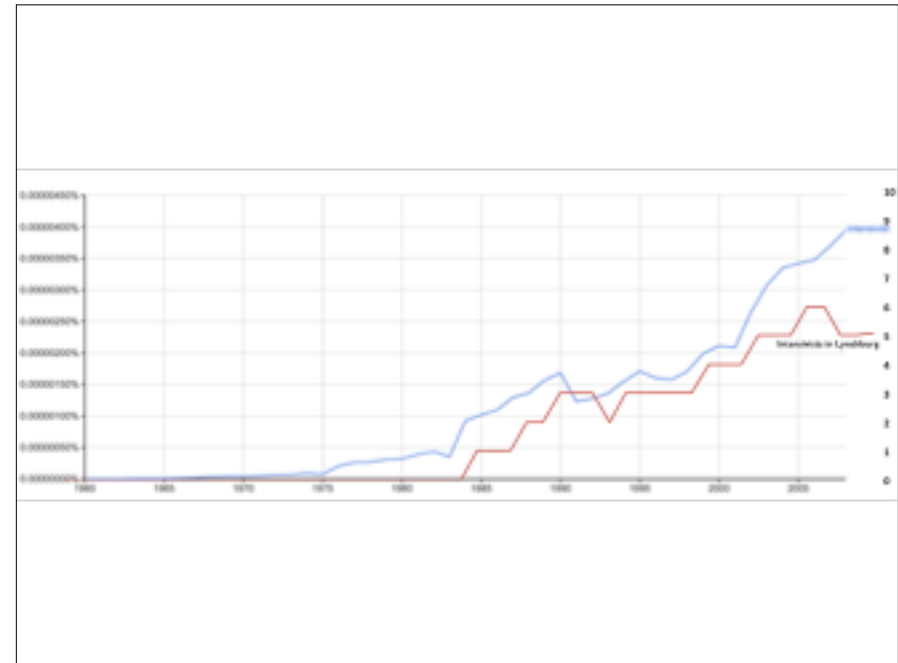


**PROJECT IMPACT**

**TO ERR IS HUMAN**  
BUILDING A SAFER HEALTH SYSTEM  
INSTITUTE OF MEDICINE

*“Intensivist”*

Timeline: Prehistory, 1995, 2000, 2005, 2010, 2015



**VHA/HR Idealized Design of Critical Care**

**Patient**  
Daily Goals  
Participation with Central Care  
Anticipation of Risk

**Care Team**  
Multidisciplinary Rounds  
Communication with the Family  
Daily Patient Schedule

**Leadership & System Improvement**  
Processes  
Quality Safety & Productivity Goals  
Financial Viability

**Design Requirements**

- Care can be tailored open for surrounding system activities
- Relationships with patients, families, and caregivers are characterized by shared decision-making and high levels of satisfaction
- Delivery of services to patients timely and within a system of care
- There is a skilled, experienced and certified care team
- A safe and orderly environment is provided for patients, families and staff
- The leadership system supports continuous improvement and resource stability

Timeline: Prehistory, 1995, 2000, 2005, 2010, 2015

Can you promise your patients...

No adverse events will happen to you in our ICU

We will reasonably provide the most current care known

If you need intensive care, providers with the appropriate skills will care for you

We'll provide care that meets your family's personal, emotional, and spiritual needs

If you need ICU care, we will deliver it promptly

Your care will be state-of-the-art without being wasteful of resources

**The CHECKLIST Manifesto**  
A New York Times Bestseller

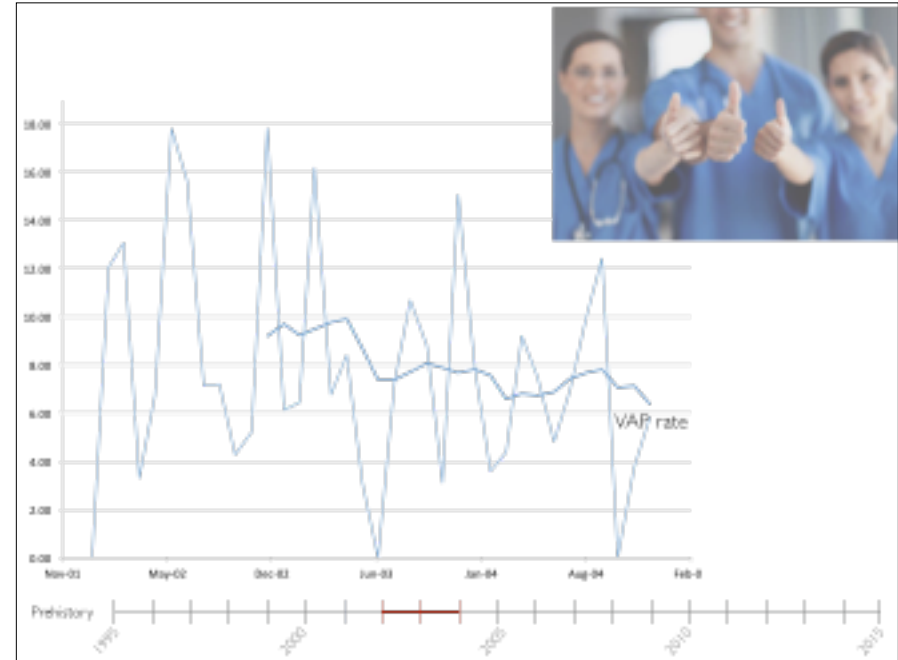
HOW TO GET THINGS RIGHT

**ATUL GAWANDE**

Timeline: Prehistory, 1995, 2000, 2005, 2010, 2015







**WSJ** **THE WALL STREET JOURNAL**  
ONLINE

September 25, 2003 12:47 a.m. EDT

**THE INFORMED PATIENT**  
 By LAURA LANDRO



**Hospitals Push to Improve Quality of Intensive Care**


Efforts Seek to Eliminate Conditions, Errors That Contribute to High Mortality  
*September 25, 2003 12:47 a.m.*

Rushed by ambulance to Virginia's Lynchburg General Hospital, 23-year-old Todd Marquis was near death from a staph infection that was poisoning his blood. Over the next two weeks, doctors and nurses in the intensive-care unit fought to keep him alive as his organs began to shut down. His anxious parents kept an almost constant vigil at his bedside, helping medical staffers monitor frightening developments like a hand that turned black, and trying to decipher his delirious hallucinations.


**SBAR** is a structured communication technique designed to convey a great deal of information in a succinct and brief manner. This is important for Patient Safety, as we all have different styles of communicating—varying by culture, profession, and gender.

**Talk to Me in SBAR**

Category	Value
Age	40
Gender	Female
Marital Status	Single
Education	PhD, Johns Hopkins University
Employment History	Johns Hopkins University (2005-2010), University of Maryland (2011-2015), University of Texas at Dallas (2016-Present)



*Dr. J Adder. 1989-84(11):1353-1357.*



### PERFORMANCE IMPROVEMENT: MEDICAL INPATIENT TIME

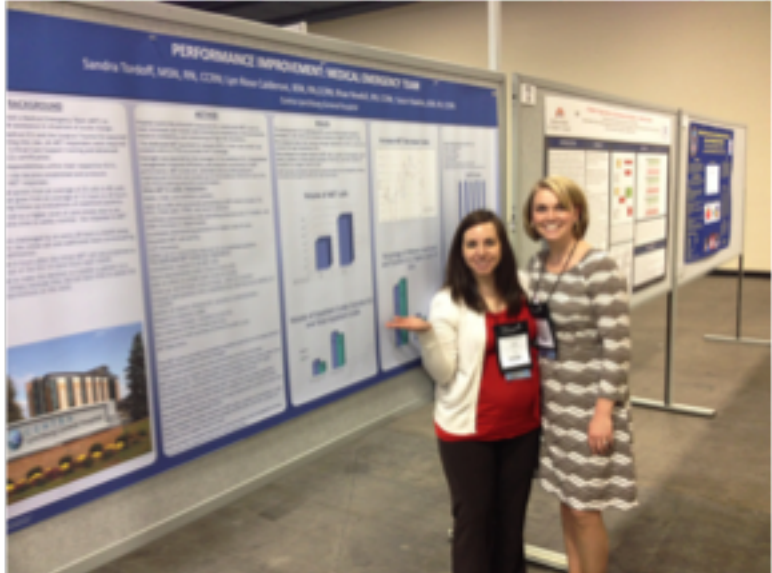

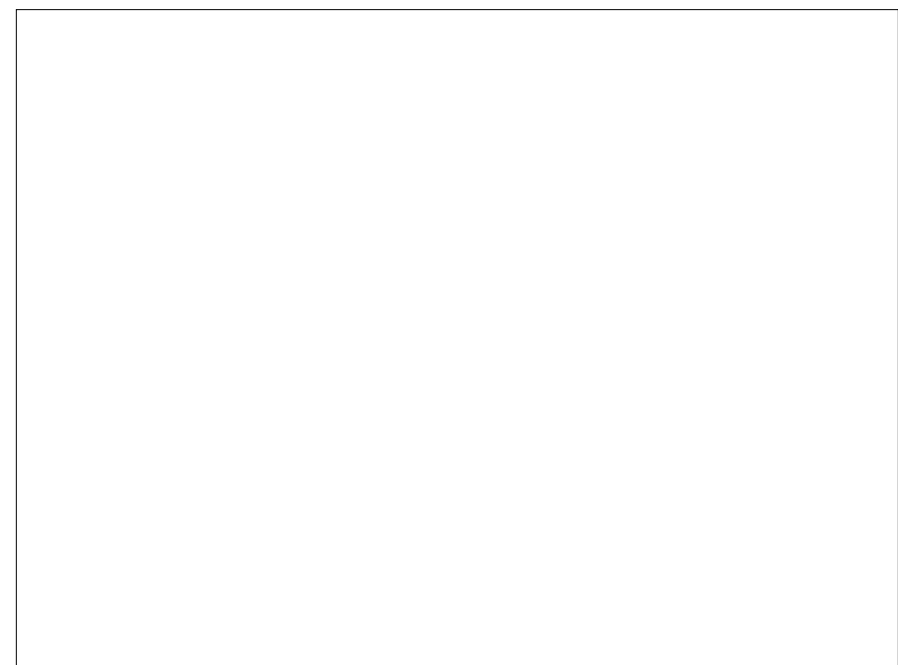
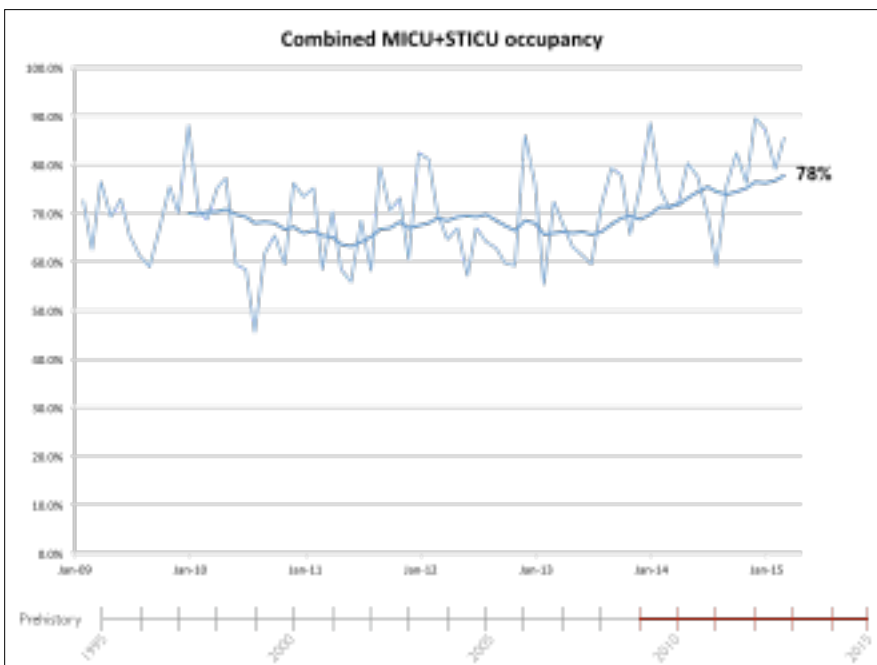
Sandra Turcott, MBA, RN, CPHQ, CIPM, BC-CRN, Manager, RN, CNA, Inpatient, 08-01-08

Background: ...

Problem: ...

Interventions: ...

Results: ...

# Centra Service Area



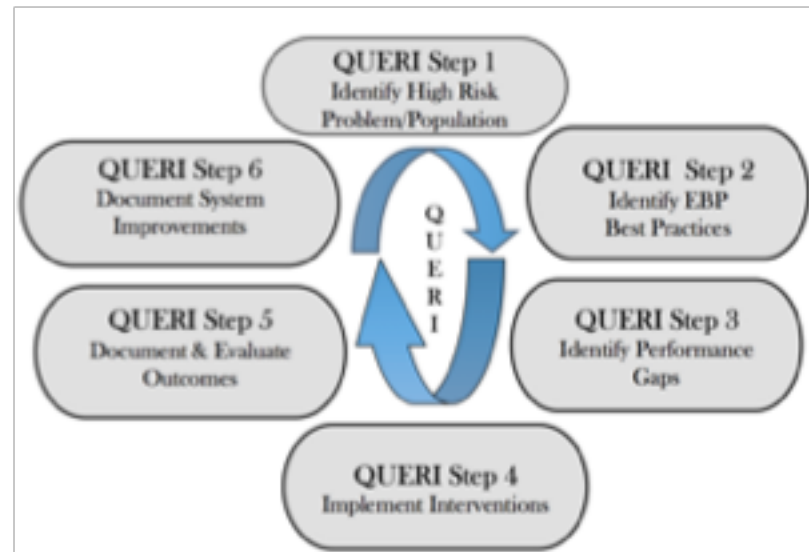
# Patient Centric



# Project Management 101



# The QUERI Framework: Basic Structure





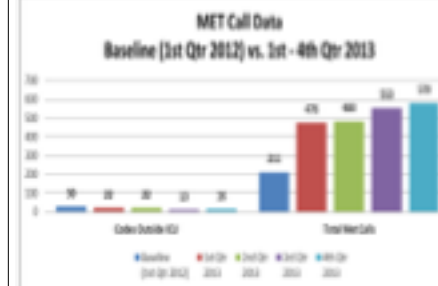
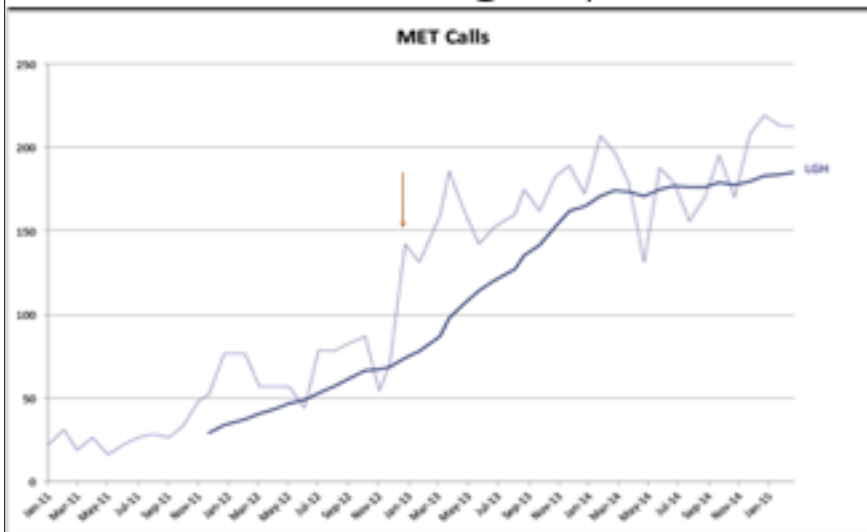
## On The Move



## MEDICAL EMERGENCY TEAM

- Assess
- Stabilize
- Assist With Interdisciplinary Communication
- Educate and Support
- CODE Response
- Mitigate Harm

## Medical Emergency Team

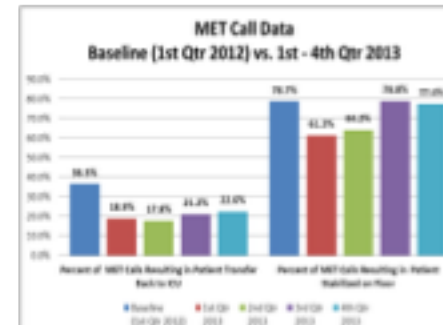


Demonstrate reduction of Codes outside of the ICU – Goal Met

Demonstrate decrease in transfers into the ICU post-MET – Goal Met

Stats - Baseline vs. 4th Qtr 2013

- 174% increase in volume of MET calls
- 47% decrease in codes outside of the ICUs
- 38% decrease in transfers to the ICU post-MET calls

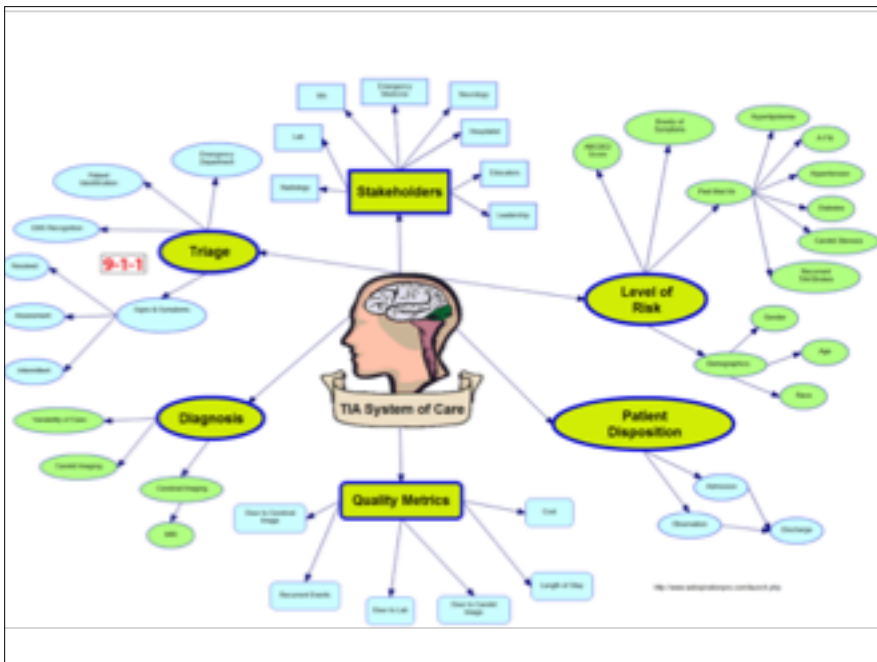
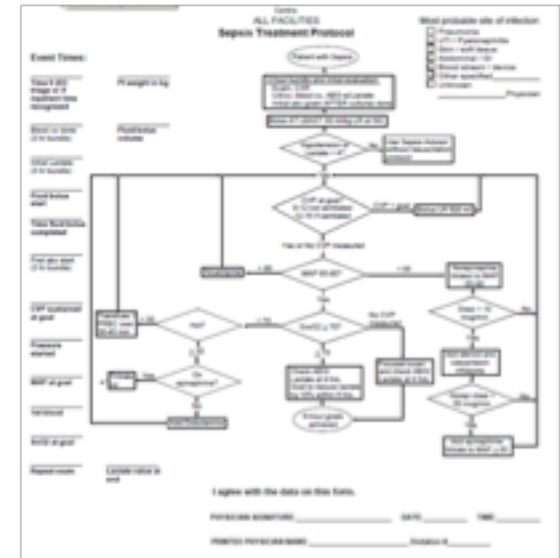






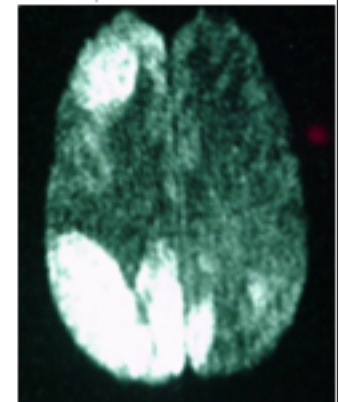
# Code Sepsis

- Identification
- Source of Infection
- Rapid Treatment
- Disposition
- 'No Data, No Mission'**



# PROBLEM

- Care for the patient experiencing a transient ischemic attack (TIA) is inconsistent
- Up to 40% of patients who experience a first-time stroke have had a prior TIA
- This compromises patient outcomes
  - Risk of stroke and disability
  - Morbidity and mortality
  - Significant physical and emotional burden
- This consumes resources
  - Delays in diagnosis and treatment
  - Increased cost of care





## National Stroke Association Recommendations for Systems of Care for Transient Ischemic Attack

S. Claiborne Johnston, MD, PhD,<sup>1,2</sup> Gregory W. Albers, MD,<sup>3</sup> Philip B. Gorelick, MD, MPH,<sup>4</sup>  
Ethan Cumbler, MD,<sup>5</sup> Jeffrey Klingman, MD,<sup>6</sup> Michael A. Ross, MD,<sup>7</sup>  
Meg Briggs, RN, BSN,<sup>8</sup> Jean Carlton, RN, BSC,<sup>9</sup>  
Edward P. Sloan, MD, MPH,<sup>10</sup> and Ulma Vainoc, MD<sup>11</sup>

Transient ischemic attacks (TIAs) are common and portend a high short-term risk of stroke. Evidence-based recommendations for the urgent evaluation and treatment of patients with TIA have been published. However, implementation of these recommendations reliably and consistently will require changes in the systems of care established for TIA. The National Stroke Association convened a multidisciplinary panel of experts to develop recommendations for the essential components of systems of care at hospitals to improve the quality of care provided to patients with TIA. The panel recommends that hospitals establish standardized protocols to assure rapid and complete evaluation and treatment for patients with TIA, with particular attention to urgency and close observation in patients at high risk of stroke.

ANN NEUROL 2011;69:873-877

## Performance Gaps

- No standard protocol
- Variability in practice
  - Patient identification
  - Cerebral & carotid imaging
  - Disposition
  - Risk identification
  - Lack of education

## Implementation & Execution

- Building the infrastructure
  - Organizational stakeholder support
  - Triage Evaluation
  - Orderset development & assessment fields
  - TIA Algorithm
  - TIA Data Collection
  - Team member education

TIA Data  
Collection  
Tool

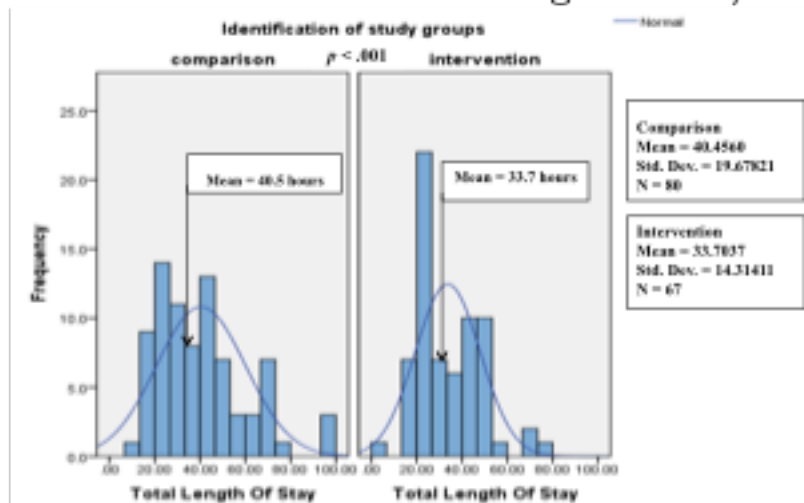
### Process Evaluation

	Mean (SD)		p-value*	Mean Difference
	Comparison Group (n=80)	Intervention Group (n=67)		
Door to 1st Cerebral Image	2.20 (2.46)	1.25 (2.13)	.053	- .950
Door to MRI	19.36 (9.88)	11.66 (9.33)	.001*	- 7.70
Door to Carotid Image	19.72 (12.30)	12.20 (9.10)	.001*	- 7.52
Door to Lab	1.40 (2.60)	.71 (.77)	.028*	- .690

\*Statistically significant p<0.05

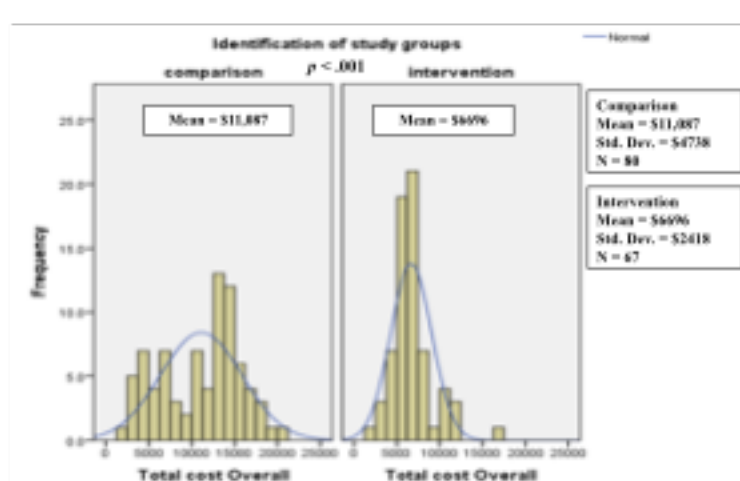
Evaluation of tests and impact on throughput study outcomes.

## Outcome Measure 1: Length of Stay



**Figure 1.** Evaluation of the mean difference in LOS demonstrates a reduction of 6.8 hours in the intervention group.

## Outcome Measure 2: Total Direct Cost



**Figure 2.** Total direct cost overall includes cost for cerebral imaging, carotid imaging, and disposition mean cost per patient based on length of stay demonstrating a mean difference of \$4384.

TIA Project Financial Outcomes					
	Mean (SD)				(95% CI)
	Comparison Group (n=80)	Intervention Group (n=67)	p-value*	Mean Difference	Confidence Interval
Total Length of Stay (Hours Measured)	40.5 (19.67)	33.7 (14.31)	.001*	6.8	(1.19, 12.31)
Total Cost of Cerebral Imaging	\$5331 (\$2904)	\$2889 (\$1800)	.001*	\$2442	(\$1667, \$3218)
Total Cost of Carotid Imaging	\$3511 (\$1986)	\$1682 (\$758)	.001*	\$1829	(\$322, \$2337)
Total Direct Cost Overall	\$11,094 (\$4728)	\$6710 (\$2420)	.001*	\$4384	(\$3185, \$5583)

\*Statistically significant  $p < 0.05$

Independent Samples t-test for continuous variables; Total direct cost overall includes cost for cerebral imaging, carotid imaging, and disposition mean cost per patient based on length of stay.

Relevant cost findings of the study outcomes demonstrating effectiveness of the TIA algorithm.

