

# UTILIZING COMPETENCE-BASED SIMULATION TO IMPROVE ORIENTATION OUTCOMES

BREAKTHROUGHS.

EVERY DAY.



Children's  
Hospital of  
Philadelphia

**Honey Pezzimenti,**  
Patricia Achuff, Roberta Hales,  
Cheryl Dominick, Akira Nishisaki,  
Natalie Napolitano

# DISCLOSURES

- Natalie Napolitano: Dräger Medical, Vero-Biotech, Smiths Medical, Philips/Respironics, Actuated Medical
- No other disclosures to report

# BACKGROUND

New Hires join our team with various levels of experience and education

New Graduates receive very limited neonatal & pediatric experience

Experienced RTs transfer to CHOP from an adult or community facility

An orientation program was needed to assure all new hires receive the same foundational knowledge

# METHODS



A nine week orientation program curriculum with simulation-based competence assessment

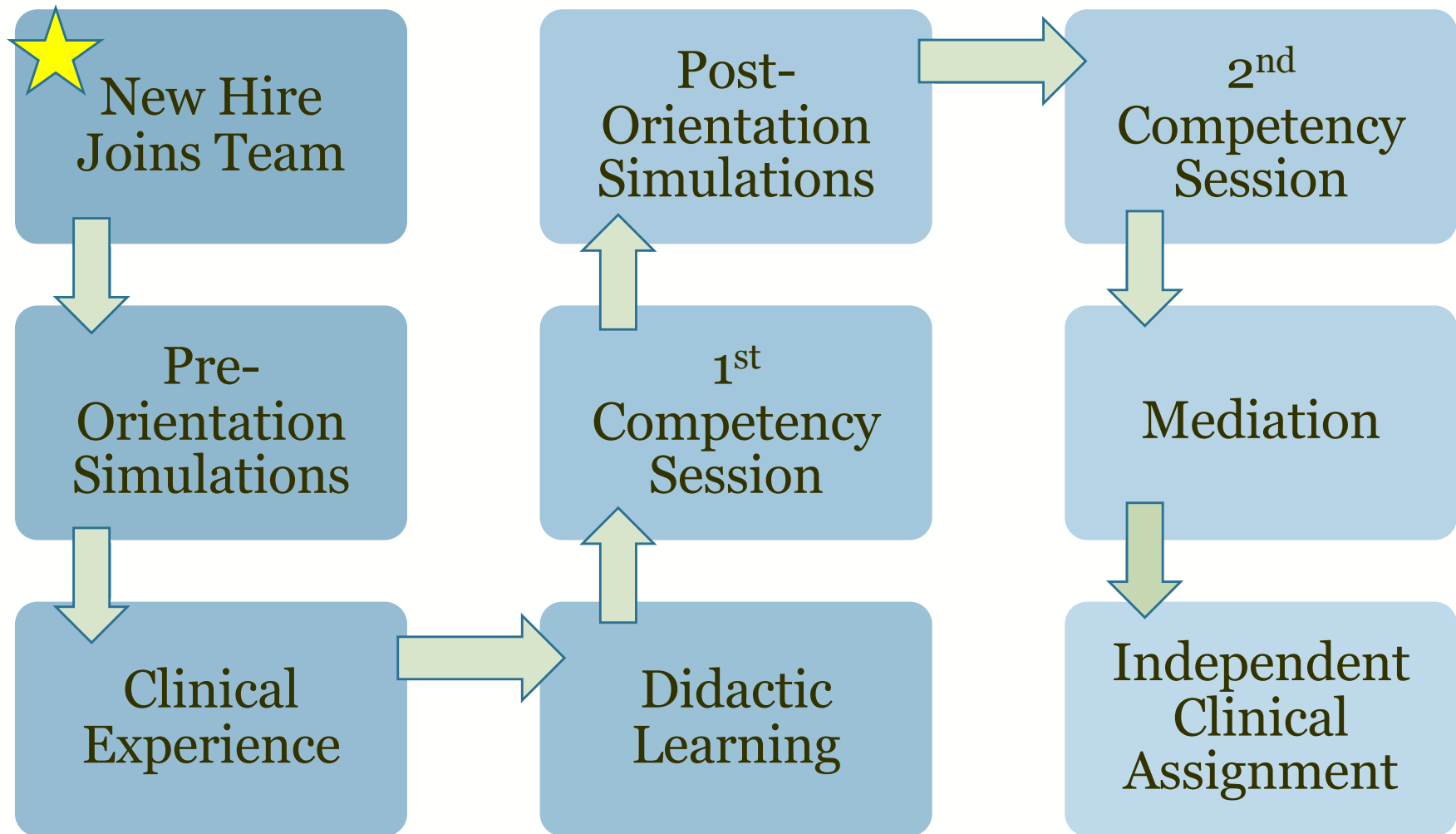


Each new hire individually completed simulations during the first and last week of orientation



Curriculum changes were made over a 3 year timeframe

# ORIENTATION FLOW DIAGRAM



# SIMULATIONS



Scenarios: NIV, decompensating patient & tracheostomy patient for experienced RT



High fidelity manikin with simulated patient monitor



Same scenarios for pre & post simulations



Scenario based checklist scored as a % of total points



Full debriefing after post orientation simulation

# MITIGATION PROCESS



Review Policies  
and Procedures



Additional  
orientation time as  
required



Additional time  
with educator to  
review equipment

# CURRICULUM UPDATES

## Timeline 1

*February 2017 – December 2017*

- **\*Baseline\***
- **Classes**
  - Tracheostomy
  - NIV
  - Asthma
  - Equipment
- **Pre & post Simulations**

## Timeline 2

*January 2018 – June 2018*

- **Weighted checklist added**
- **Critical elements were worth more points**

## Timeline 3

*July 2018 – March 2019*

- **Introduction of simulation video**

## Timeline 4

*July 2019 – November 2020*

- **New weekly didactic classes**
- **New simulation workshop**



# RESULTS



90 new hires completed the program



16% of the new hires required mitigation



67% number of new hires successfully moved on to ICU orientation



All new hires improved scores between pre & post simulations in all periods

# USE OF A COMPETENCE-BASED SIMULATION PROGRAM:



allowed continuous examination of the orientation program



assisted with readiness evaluation for orientation completion



created successful advancement of new hires to ICU orientation