

# PICU | ONCO BOOT CAMP: CREATING TARGETED NURSING EDUCATION FOR A COMPLEX HYBRID UNIT

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## BACKGROUND & SCOPE

- Fluctuating patient acuity on a hybrid oncology and pediatric intensive care unit (PICU) negatively affected nurse preparedness and confidence
- Unit clinical nurse experts identified the need for a specialized PICU | Onco nursing education

## OBJECTIVE

- To develop a targeted educational program (boot camp) for high-risk, low-volume therapies to:
  - Increase nursing competence and confidence in caring for acuity-diverse pediatric patients who require oncologic or intensive care
  - Reduce the occurrence of unit-associated safety events

## METHODS

- Interprofessional Stakeholder Engagement**
  - Clinical Nurse Specialists and Nursing Professional Development Specialist supported boot camp content
  - Safety-Quality specialists obtained and analyzed safety-reporting data
  - Unit manager and supervisor provided scheduling and financial support
  - Multidisciplinary clinical experts presented educational content
- Unit-informed Education Content & Approach**
  - Content was tailored to unit needs based on:
    - Results from a self-reported nursing learning needs assessment
    - Unit safety event data
  - Multimodal teaching included skills stations, simulation sessions, an escape room activity, unfolding case study, and lectures by expert interprofessional speakers<sup>1-3</sup>
- PICU | Onco Boot Camp Rollout**
  - Mandatory attendance was required for nursing staff with protected education time
  - Multiple sessions offered during each Boot Camp round provided staff with scheduling options
  - Trial of 8-hour and 4-hour session duration
- Knowledge, Confidence, & Safety Evaluations**
  - Pre- and posttests measured knowledge attainment (collected in REDCap<sup>4</sup>)
  - Nursing confidence in knowledge and skills assessed by anonymous survey immediately following each round via REDCap
  - Safety-reporting data analyses compared incidence of unit-associated safety events 6 months pre- and post-boot camp rounds

## RESULTS

- 98% of all eligible nurses completed boot camp
- Both 8- and 4-hour boot camps demonstrated an increase of  $\geq 20\%$  in mean knowledge test scores (Fig. 1)
- Analysis of self-reported responses on post-boot camp nurse surveys revealed:
  - 100% “strongly agree” that “the information delivered was informative and relevant to job responsibilities”
  - 76% “strongly agree” that they acquired new skills during boot camp
  - 98% “strongly agree” that they will make a clinical practice change based on knowledge learned
- Incidence rates of boot camp content-related safety events decreased (Fig. 2)
  - Only 1 event—chest tube dislodgements—increased; however, the cause was determined to be securement practices (*rates decreased after correcting*)

FIGURE 1. BOOT CAMP KNOWLEDGE TEST MEAN SCORES

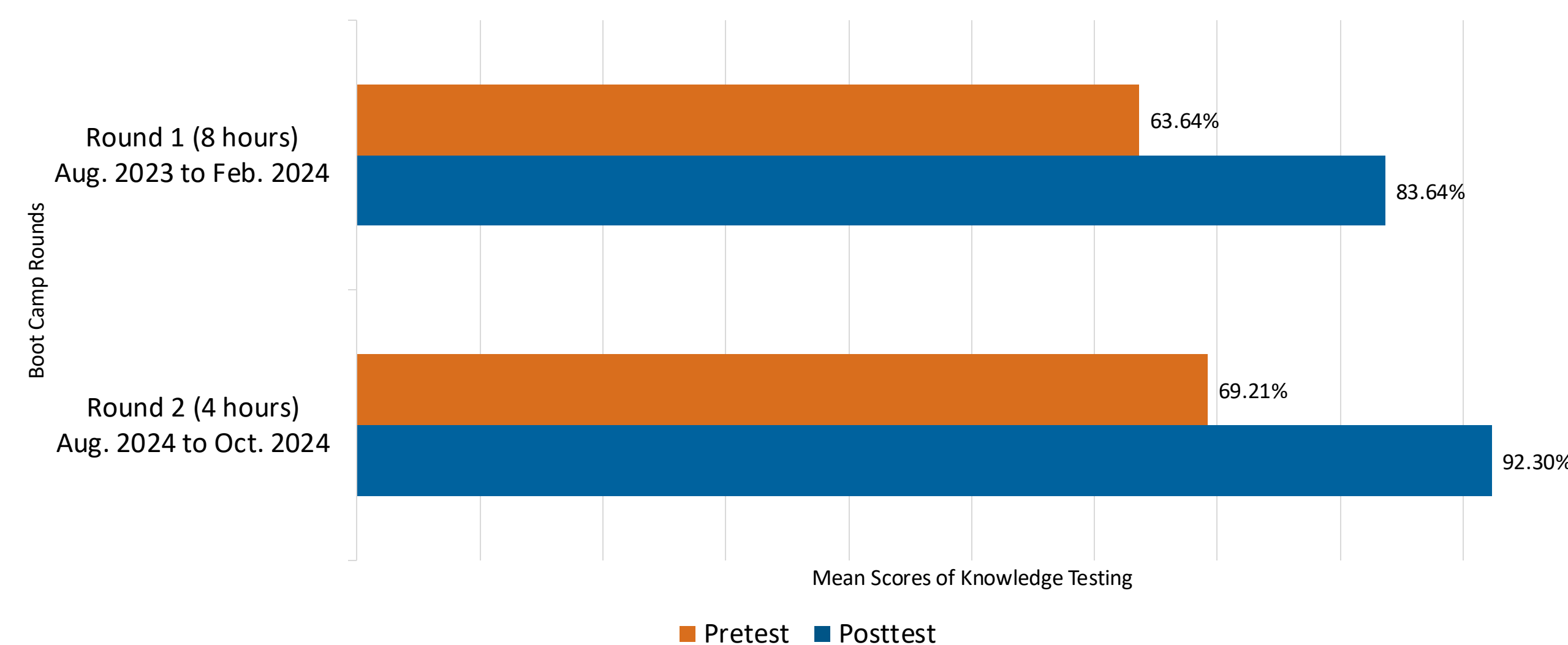


FIGURE 2. SAFETY EVENT INCIDENCE

Safety Event Type	Percent Decrease
Arterial line management	100%
CLABSI Bundle	57%
Oncology Medications	33%
Tracheostomy Decannulation	60%

## CONCLUSION

- This targeted educational program demonstrated successful knowledge attainment, improved nursing confidence in high-risk, low-volume skill sets, and led to a decrease in the number of reported safety events
- Reducing boot camp duration from 8 to 4 hours did not affect knowledge attainment rates and provides key benefits:
  - Prevents oversaturation of material, thereby enhancing staff engagement
  - Reduces unit costs, which supports project sustainability
  - Enables more session offerings per round to support staff satisfaction
- Additional nurse-reported preferences
  - Escape room activities provided more team-building opportunities and comfort with “making mistakes” than high-fidelity simulations
  - Diverse teaching approach appreciated; “hands-on” learning prioritized

## IMPLICATIONS FOR PRACTICE

- The 4-hour PICU | Onco Boot Camp is now established as an annual program
  - Round 3 planning begins Spring 2025
- Our methods for identifying nursing knowledge gaps and developing a targeted education may prove helpful in other units and clinical areas

## REFERENCES

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