

# USING ACTIVE LEARNING DURING ICU ROUNDS. FEELING OF LEARNING (FOL) VS. ACTUAL LEARNING (AL) IN A COMMUNITY HOSPITAL IM PROGRAM EXPERIENCE AFTER FACULTY EDUCATION AND EXTERNAL SOURCES CURRICULUM SUPPORT

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## INTRODUCTION

The intensive care unit (ICU) offers a unique set of challenges and opportunities for both learners and teachers. It is a rich learning environment that moves at a very high pace, which can be overwhelming. The environment is noisy and stressful, but the learner is always surrounded by an interdisciplinary group of professionals from whom to learn the art of caring for the critically ill patient.

The precious teaching moments in ICU occurs usually in the middle of the night, with alarms and multiple interruptions during ongoing emergencies. It requires the upmost focus and attention from the learner to catch information and place it somewhere in their memory banks for later use.

The learner must observe and "catch" as much as possible, but many important details are missed. While some background information is assumed for most learners, I have been surprised of how variable the ICU experience is for many residents.

I heard in a meeting the concept of "teaching on the fly" and immediately resonated to the king of teaching I do bedside but without any formal training in active learning high yield teaching techniques.

The COVID pandemic has shown us the importance of educating all providers in critical illness management. I decided to educate myself on active learning techniques with the purpose of improving our residents experience during their ICU rotation.

## OBJECTIVES

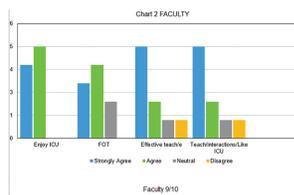
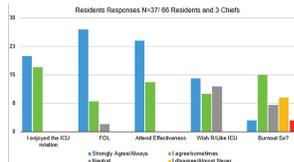
1. To enhance the Internal Medicine residents and teachers experience in ICU after instruction in active learning techniques.
2. To introduce the learner to the basics of the assessment and management of the critically ill patient using the FCCS course by the Society of Critical Care Medicine.
3. Burnout and moral distress are extremely prevalent in our medical community including our residents and medical students. One of the measures that has been deemed to be effective is the development of a mentorship program. If instituted early a relationship with a mentor could be quite effective in preventing or mitigating the long term damaging effects of burnout in the young physician career.

During the rotation in the ICU, medical residents will have the opportunity to select a mentor and connect for the first time to develop long term professional relationship with their mentors. Therefore, the most important objective of this project is:

**To foster a productive long-term relationship with mentors in the field to avoid burnout.**



## RESULTS



## METHODS

This study followed a cohort of medical residents and students at Danbury Hospital before and after they receive a known and validated ICU content and skill program administered by the SCCM. IM residents and faculty from the Pulmonary Critical Care department involved in ICU teaching receive a five points Likert scale questionnaire via email to assess the FOL, burnout and feeling of teaching effectiveness (FOT). A two-day SCCM course: FCCS 7th edition is administered in our institution, the resident's performance documented, and a second questionnaire submitted to evaluate the actual learning. In addition, faculty receive a brief PowerPoint training on active teaching techniques after which a repeat questionnaire is submitted to evaluate the post intervention actual teaching scores.

## REFERENCES

1. Lekshmi Santosh, MD et al. Practical Tips for ICU Bedside Teaching. CHEST 2018; 154 (4): 760-765.
2. Muhammad Ali Abouel, Don Bradley. Twelve tips to improve medical teaching rounds. Medical Teacher 2013; 35:895-899.
3. Camille R. Peltz et al. Enhancing teaching and learning in ICU. <https://doi.org/10.1111/icc.12126>, December 23, 2019.
4. Critical Care Clinical Collections. NEJM group.
5. Peter C. Brown, Henry L. Roodinger III, and Mark A. McDonald. Make it stick. The Science of Successful Learning. The Belknap Press of Harvard University Press. Cambridge Massachusetts. London, England. 2014.
6. James H. Long. Small Teaching. Second Ed. Everyday Lessons from the Science of Learning. Jossey-Bass A Wiley Brand 2021.
7. Fundamentals Critical Care Support. Seventh edition. FCCS. Society of Critical Care Medicine. 2021.
8. Samuel M. Brown MD, MS, FASE, FCCM, et al. Comprehensive Critical Care Ultrasound. Society of Critical Care Medicine. 2015.

## CONCLUSIONS

Educators might consider devoting additional attention to improving teaching practices by supporting educational opportunities and training in active teaching for the faculty. This can translate to programs such as the FCCS to help the medical students and residents improve their experience during their ICU rotations. In addition, a mentorship program could be considered for residents to battle burnout early in these physicians' careers.



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"All You Need is a Plan!"  
Pat Tietjen, MD



Patricia A. Tietjen, MD  
Teaching Academy

