

# EXPERIENCE FROM COVID – HOW TO PREPARE NON-ICU FELLOWS FOR THE ICU AND OTHER BOOT CAMP STRATEGIES

## Syllabus

### Moderators:

Erin Hennessey, MD, Stanford

Shanna Hill, MD, Cornell

Daniel Katz, MD, Mt. Sinai

Jennie Ngai, MD, New York University

**Disclosures:** Moderators have no financial disclosures relevant to this discussion.

### Objectives:

1. At the end of the session, learner will be able to discuss methods to prepare non-critical care anesthesia fellows for the ICU service
2. At the end of the session, learner will be able to explain alternative teaching ideas for each anesthesia sub-specialty fellowship program
3. At the end of the session, learner will be able to discuss methods to support mental and physical health and mitigate fatigue

### Discussion topics:

1. **Preparation for the ICU: Roles of anesthesia fellows in training during the pandemic.**

Moderator: Erin Hennessey, MD

- A. Preparation for fellows-in-training is three-pronged: preparing fellows for proper donning and doffing of PPE and proper PPE protocols and policies, preparing for working in the ICU with indirect or direct supervision, and preparing fellows to function in their primary specialty role (anesthesiology).
  - i. PPE: Fellows-in-training should undergo training in updated PPE policies, have appropriate fit testing for personal protective equipment, and show competency in using PPE. In-person sessions, e-learning, and just-in-time teaching strategies can be used based on time for preparation prior to the shift.
  - ii. ICU medical knowledge and skills: Fellows have primary residency training in critical care medicine but may not have training in medical critical care ICUs or familiarity with the location in which they are currently in training. Fellows should be provided with a baseline medical knowledge refresher exploring management of respiratory failure, sepsis, and infectious diseases in the ICU. Critical care fellowship programs can develop online learning strategies, reuse curriculum already developed for trainees on the ICU rotations, and incorporate new policies and protocols specifically for caring for COVID-19 patients. National organizations developed online critical care curriculum programs for the non-ICU physician that could be used for education. Policies regarding

procedures that fellows-in-training can perform (intubation, central venous access, proning, arterial line placement, IV placement, etc) should be readily accessible for trainees and hospital protocols should be reviewed.

- iii. Primary specialty role: Fellows-in-training can function in their primary specialty during Stage 3 per ACGME recommendations. New faculty handbooks regarding locations of OR, orientation to the operating room, and policies and procedures can be used to orient fellows-in-training to an anesthesia faculty role. Fellows-in-training in which the residency site was different from the fellowship site should be properly trained in regard to equipment availability, electronic medical record, and hospital crisis management policies prior to working solo.
- B. Protection of fellows-in-training includes ongoing resources regarding updates in PPE, proper utilization and access to PPE, and revisiting the fellow-in-training role on the COVID-19 ICU team.
- C. ICU Resources for Fellows-in-training: Ongoing resources to allow the fellows to complete their patient care duties in the ICU will be needed. Developing streamlined protocols and policies for caring for patients such as ventilator order sets, clinical trials checklists, and delirium management were key for the ongoing management of critically ill patients. Critical care fellows can be utilized to develop an online wiki page for quick access to resources as procedures and policies change. Super-users for the electronic medical record should be available to aid in efficiency in using the electronic medical record. Consider using tele-health and expert remote-consultants to aid in the patient care delivery the fellow-in-training is providing.

**2. Scheduling to minimize interruption in education, innovative ideas to teach primary specialty during pandemic. Moderator: Jennie Ngai, MD**

- A. Education takes on many forms, whether it is through observation or interactive. Educational components include didactics, hands-on skills learning, and inter-professional dynamics. During times of a pandemic, the standard educational process is altered. We, as educators, still have an obligation to teach our trainees about medicine and our specialties. How can we accomplish teaching fellows their primary subspecialty during the interrupted time of their fellowship training? With virtual learning, it is imperative to have an active learner vs passive learner.
  - i. Questions: during the course of the lecture, ask questions, starting from general knowledge in the beginning, to more complex questions in the middle, then specific questions at the end of the lecture.
  - ii. Pro/con: for a particular topic, ask the learners to list pro and con of management.
  - iii. Guided analysis: analyzing a document or problem in real time with the housestaff so they can observe attending's analytical skill, making clear the procedures used to reach assertions, using visual aids and supplemental material as necessary.
  - iv. Case study: picking a clinical scenario and going through assessment and treatment options (PBLD)
  - v. Role play: each fellow actively plays a role in the scenario. This is good to demonstrate social issues, how to teach patient interviews, how to deliver bad news / patient death to family, how to teach professional behavior, how to teach conflict resolution.
  - vi. Hands on learning: simulator sessions in small group or 1:1 to limit group size. Having small groups does take more time for faculty teaching, but there is more individual attention for specific physical skills. There are simulators for transesophageal echo, transthoracic echo, airway management, regional anesthesia blocks, and vascular access. Demonstration videos can be supplemental material.

- B. An important part of medicine that is not easy to teach, except through everyday example and experience, is to teach fellows to function as part of an effective interprofessional team. This can be through participation with group dialogue, attending virtual meetings of other specialties. A fellow should learn how to be an effective member of a team, to communicate to others tasks to accomplish, and to work together towards the goal of safe patient care. If this experience is not available because of an extreme pandemic situation, this could be taught via role-playing / simulator sessions.
- 3. **Fatigue management and wellness.** Moderator: Shanna Hill, MD
  - A. Biggest mental and emotional stressors in COVID:
    - i. Access to appropriate PPE
    - ii. Rapid access to testing
    - iii. Support for transportation, food, accommodations
    - iv. Fear of infecting self or loved ones, Child-care
    - v. Concerns re quality of care: feeling underprepared, understaffed, or without latest treatments
    - vi. Long durations of care without significant improvements
    - vii. Emotional and ethical stress as we encounter unusual care situations (different communication with families, concern over patient being alone)
    - viii. Communication from leadership: regular and current communications without information/email overload
    - ix. Lack of normal social interactions and support, different patterns of communication at work
  - B. Physical stressors:
    - i. Long time periods in PPE
    - ii. Strict infection control measures,
    - iii. Different shift patterns
    - iv. Recovery time
  - C. Discuss strategies to mitigate above:
    - i. “Take care of yourself so you can take care of others”
    - ii. Visible leadership and transparency
    - iii. Provide for the needs of your team: food, PPE etc
    - iv. Monitor your team and communicate re needs, adapt support plan
    - v. Mental health support with frequent reminders
    - vi. Decrease work-load, teams, training
    - vii. Scheduling
- 4. **Wrap-Up: Review of themes.** Moderator: Daniel Katz, MD
  - A. Review of Themes
  - B. ACGME Response to Pandemic
  - C. Ensuring compliance under different circumstances
  - D. Eligibility to graduate

#### Resources:

1. <https://www.ama-assn.org/delivering-care/public-health/caring-our-caregivers-during-covid-19>
2. <https://www.health.state.mn.us/diseases/coronavirus/hcp/mh.html>
3. <https://mhanational.org/covid19>
4. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/mental-health-healthcare.html>
5. Greenberg, N. Mental health of health-care workers in the COVID-19 era. *Nat Rev Nephrol* 16, 425–426 (2020).
6. Jotwani R, et al. Trial under fire: one New York City anesthesiology residency programme’s redesign for the COVID-19 surge. *Br J Anaesth*. 2020 Oct; 125 (4): e386-e388.

7. <https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/alternatives-lecturing/active-learning/varying-your-teaching-activities>
8. <https://www.ama-assn.org/residents-students/medical-school-life/online-learning-during-covid-19-tips-help-med-students>
9. <https://www.seahq.org/page/podcast>
10. <https://covid19.sccm.org/nonicu/>. Society of Critical Care Medicine. COVID-19 Resources for Non-ICU Clinicians. “Critical Care for the Non-ICU Clinician.”
11. Gallagher et al. Strategic deployment of cardiology fellows in training using the Accreditation Council for Graduate Medical Education Coronavirus Disease 19 Framework. *J Am Heart Assoc.* 2020;9:e017443. DOI: 10.1161/JAHA.120.017433
12. Della Corte et al. Just-In-Time Training in a Tertiary Referral Hospital During the COVID-19 Pandemic in Italy. *Academic Medicine.* 2020 Jul 02. DOI: 10.1097/ACM.0000000000003575