

## A Roadmap to Infection Prevention & Control (IPC) and Hospital Epidemiology Education for Infectious Diseases (ID) Fellows

**Purpose:** The Accreditation Council for Graduate Medical Education (ACGME) ID milestones include medical knowledge elements related to IPC and hospital epidemiology. Currently the ID fellowship at the University of Colorado has only limited lectures related to these topics. We describe a framework for stepwise development of a curriculum to provide fellows with the knowledge and skills needed to practice IPC and healthcare epidemiology.

**Objectives:** The initial aim is creation of a month-long rotation in the first year that will teach fellows foundational knowledge of the principles of IPC and hospital epidemiology. This will include:

- The Society for Healthcare Epidemiology of America Primer on Healthcare Epidemiology, Infection Control and Antimicrobial Stewardship
- National Health Safety Network modules for healthcare associated infections (HAI)
- Lectures on transmission-based precautions, personal protective equipment, hand hygiene, surveillance, HAI prevention, occupational health, epidemiology, outbreak investigations, and emerging infections
- Review of state and local health department reporting requirements

Additionally, fellows will perform the following tasks:

- Attend committees related to central line-associated bloodstream infections, catheter-associated urinary tract infections, *C. difficile*, surgical site infections, and inter-rater reliability meetings for surveillance adjudication
- Participate in on-call activities related to isolation questions and exposures
- Participate in unit rounds and tracers and complete a visual case series related to common IPC concerns
- Participate in the investigation and response of an epidemiologically significant pathogen
- Lead a journal club on an infection prevention topic
- Participate in a quality improvement project (optional)

Following successful implementation of a first-year fellowship rotation, we intend to develop a second year IPC Track (IPCT). The IPCT will build on the knowledge and experiences from the first year and include further training on environmental cleaning, disinfection, sterilization, construction, and

emergency preparedness. IPCT fellows will participate in education of first-year fellows and other healthcare workers, review HAIs for actionable trends, lead an outbreak investigation and conduct a research project.

Aspirational goals for the program include developing an advanced fellowship for third year fellows during which they will lead a large-scale, innovative, quality improvement initiative and be prepared for leadership roles in IPC.

Assessment Methods: Knowledge gained during the first-year rotation will be measured with assessments of knowledge beginning and end of rotation and soliciting feedback regarding future content. We will assess performance of the relevant sections of the fellowship in-training examination after the implementation of this program. We will track IPC related publications by fellows who have participated in the program as well as the graduates who obtain IPC positions.

Use of Results: We plan to publish on the impact of the first-year rotation. Results will also be used to support the development of each subsequent stage of training - the second year IPCT and ultimately an advanced third year fellowship.

Conclusion and Next Steps: Design of this curriculum has been met with challenges including competing needs and priorities of stakeholders, change in fellowship leaders, the response to several emerging infections, and strained division staffing. However, to advance the ID fellowship, implementation of the first-year rotation is planned for the incoming fellowship class.