Question 9. Do you have an antibiotic stewardship team that includes at least one physician and one pharmacist?

You indicated that you do not have at least one physician and/or one pharmacist engaged on your hospital's antibiotic stewardship team. Inappropriate and avoidable exposure to antibiotics is the single most important risk factor for developing CDI. A successful CDI prevention initiative requires collaboration and cooperation with physicians and pharmacists. Physician and pharmacist champions can help bring the initiative to the other physicians and pharmacists, aid with engagement and be a part of problem solving when there is resistance or another challenge from providers.

A. Strategies to Connect CDI Prevention and Antibiotic Stewardship Efforts:

Antibiotic stewardship programs not only help individual patients by avoiding exposure to inappropriate antibiotics but also have a multiplicative effect on helping to reduce CDI at the unit and even hospital level. At their core, antibiotic stewardship programs coordinate interventions designed to improve and measure the appropriate use of antibiotics by promoting the selection of the optimal antibiotic drug regimen, including dose, duration of therapy, and route of administration. Ensuring that your antibiotic stewardship team is effective is critical to reducing CDI rates.

- Engage a physician champion and a pharmacist champion to lead antibiotic stewardship efforts, placing particular emphasis on routinely monitoring and discussing CDI rates, rates of antibiotic use and rates of high-risk antibiotic use (e.g., fluoroquinolones).
- Reduce unnecessary exposure to broad-spectrum antibiotics, tailoring ongoing antibiotic use based on the latest clinical data and lab results.
- Consider specific actions to optimize antibiotic use by:
    - Implementing interventions that occur across a unit, service or facility.
    - Implementing specific interventions focused on particular infections or antibiotics.
    - Implementing pharmacy or lab-driven interventions that are built into the ordering system.
- Implement a plan to communicate antibiotic use rational, dose and duration when patients are transferred between units and to other health care facilities.
- Implement initial changes on a smaller scale as some facilities may be resistant to broad, sweeping changes.

- Avoid implementing too many actions and interventions simultaneously; this may spread resources too thin and lead to staff confusion and resistance.
- Consider what hospital characteristics may influence CDI prevention efforts, such as:
    - What are the underlying issues at your facility that are driving increased CDI rates?
    - What are unique characteristics of your facility or patient population that may affect initiative implementation?
    - What is the institutional culture?
    - What about timing? Will the intervention require significant lead-time?

B. Strategies for Engaging Physician and Pharmacist Champions

- There is no "one-size-fits-all" strategy to finding a physician or pharmacist champion. You must identify the type of physician who will work best in your organization. Some suggestions include: engaging clinicians who participate on the hospital Pharmacy and Therapeutics Committee, infectious disease doctors or hospitalists. If no one is available, consider reaching out to an off-site or "remote" leader. When selecting a physician champion, consider someone who is passionate about antibiotic stewardship and/or preventing CDI. Regardless of who is chosen, it is important to engage the Pharmacy and Therapeutics Committee early in the process and maintain ongoing communication.
- Often, successful physician and pharmacist champions are those who have pride in the hospital's culture of excellence or are interested in making improvements. Ideally, this physician or pharmacist may have the ear of the hospital administration and the respect of their peers. They would be someone who is willing to collaborate with other disciplines and is open to differing viewpoints and perspectives.
- Because many physicians have clinical responsibilities and may not be employees of the institution, it is important to consider their workload when asking them to become a champion of this work. Consider the following suggestions:
    - Be clear on the expectations for the physician champion at the beginning. The primary roles of the physician champion are to share details of the initiative with their colleagues and gain their cooperation and support to improve patient and safety outcomes. Physician champions should not, for example, be expected to attend all meetings, be otherwise involved in matters unrelated to clinical concerns, such as budget discussions or internal promotional plans, or work out details of data collection (unless they want to).
    - Temporarily relieve the physician of some of their responsibilities. Develop some type of recognition for the physician(s). One hospital recognized a member of its

medical staff with a "physician champion" award, complete with a certificate signed by the hospital's chief of staff and a gift certificate to a local restaurant.

  - Consider rewarding physicians who actively participate in infection prevention initiatives as champions. This can include financial compensation for the champion role and the extra time spent assisting with these efforts.

  - Consider having co-champions to lighten the workload and provide mutual support. A co-champion can be another physician or an additional pharmacist. Typically, clinical pharmacists have a great deal of credibility with the medical staff, and therefore, pairing a physician with a clinical pharmacist as co-champions to engage the medical staff can be a very effective strategy.

  - Include a champion's activities towards his/her obligations to meet credentialing requirements for the hospital.

- The pharmacist champion is likely an employee of the hospital, and duties related to antibiotic stewardship should be included in his or her routine responsibilities. Time and resources for this work will be necessary, and typically, the pharmacist will be tasked with much of the work to develop and implement an antibiotic stewardship program. The pharmacist champion should be involved in budgets, promotional work, and data collection strategies as they have the expertise related to pharmacy systems, the drugs themselves, and related costs that will be needed for data collection and tracking of outcomes. In addition, they are a key educator and champion to engage fellow pharmacists in this work and thus needs first-hand, tacit knowledge of the program.

- Leadership commitment to the antibiotic stewardship program can be the deciding factor for pharmacist and physician involvement. To help get leadership buy-in, develop a strong business case highlighting the return on investment for involvement in antibiotic stewardship programs. Antibiotic stewardship efforts to reduce CDI can often pay for themselves through savings. This includes direct savings through decreased antibiotic costs and indirect savings through decreased costs of caring for patients who will subsequently not develop CDI. Make sure that medical leadership allows the physician and pharmacist champions dedicated time to work on antibiotic stewardship.

Tools, Resources and Further Reading

- STRIVE Content:

  - Introduction to Antibiotic Stewardship (ABX101)

  - Uber-Adaptive Strategies for Infection Prevention (UA102, UA103)

  - Building a Business Case for Infection Prevention (BC101, BC102, BC103)

- CDI Tier 1 (CDI101, CDI102, CDI104)

- CDC Core Elements of Hospital Antibiotic Stewardship Programs
- CDC Antibiotic Stewardship Implementation Tools
- Strategies to Assess Antibiotic Use to Drive Improvements in Hospitals. Centers for Disease Control and Prevention
- Wenzler E, Mulugeta SG, Danziger LH. The Antimicrobial Stewardship Approach to Combating *Clostridium difficile*. Antibiotics (Basel). 2015; 4(2): 198-215.
- Feazel LM, Malhotra A, Perencevich EN, et al. Effect of Antibiotic Stewardship Programmes on *Clostridium difficile* Incidence: A systematic Review and Meta-Analysis. J Antimicrob Chemother. 2014; 69(7):1748-54.
- Leffler DA, Lamont JT. Clostridium difficile infection. *N Engl J Med*. 2015; 372:1539-48.
- Srinivasan A. Engaging Hospitalists in Antimicrobial Stewardship: The CDC Perspective. J Hosp Med. 2011; 6 Suppl 1: S31-3.
- Damschroder LJ, Banaszak-Holl J, Kowalski CP, Forman J, Saint S, Krein SL. The role of the champion in infection prevention: results from a multisite qualitative study. Qual Saf Health Care. 2009; 18(6):434-40.
- Infectious Disease Society of America (IDSA): Promoting Antimicrobial Stewardship in Human Medicine. http://www.idsociety.org/Stewardship_Policy/
- American Society of Health-System Pharmacists: A hospital pharmacist's guide to antimicrobial stewardship programs. http://www.ashpadvantage.com/docs/stewardship-white-paper.pdf