Exchanging the Components of Effective Infection Control and Prevention

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The depth and breadth of Infection Control includes many different microorganisms as well as sites of infection. The number one microorganism causing hospital infections is Clostridioides difficile (formerly Clostridium difficile). C. difficile poses many challenges for its reduction both here in the United States and abroad. In this issue, Steeves et al showed that it took multiple interventions to reduce the rate of hospital acquired C. difficile. Kelly et al performed a retrospective chart review of antibiotics received by patients with nosocomial C. difficile and showed that there was no overuse of high-risk antibiotics or unnecessary use of antibiotics. Lonks et al showed that at least 5.5% of hospitalized patients were colonized with C. difficile. These colonized patients if inappropriately tested for C. difficile would be misclassified as infected. Patients with unrecognized C. difficile colonization may act as a reservoir in the hospital. Additionally, one patient was misclassified as having nosocomial C. difficile since the stool specimen was sent to the clinical laboratory on hospital day 4; however, culture data showed that they were colonized at the time of admission.

The empiric choice of antibiotics for surgical prophylaxis is challenging. One strategy is to base antibiotic surgical prophylaxis on the hospital’s antibiogram. Crawford et al compared the rate of methicillin resistance among Staphylococcus aureus isolated from nares cultures of patients undergoing elective lower extremity joint replacement to the hospital’s antibiogram. The antibiogram markedly overestimated the proportion of Staphylococcus aureus that is methicillin resistant.

Urinary tract infections are common. Asymptomatic bacteriuria and colonization of urinary catheters lead to positive laboratory culture result. However, these conditions do not require treatment with antibiotics. Positive culture results may lead to a patient being falsely classified as having a catheter associated urinary tract infection. Moreover, unnecessary antibiotic therapy can lead to adverse side effects, drug-drug interactions, C. difficile infection and antibiotic resistance. Macias-Gil et al provide a clinically oriented, in-depth review of this topic.

References

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