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Systemic antimicrobial prophylaxis issues

Pierre Moine

University of Colorado Denver, USA

Surgical site infections (SSIs) continue to be a significant cause of morbidity and mortality, and add significantly to the cost of care. Recent data suggest that SSI rates may be declining more slowly than those for some other healthcare-associated infections. Systemic antimicrobial prophylaxis is one important component of perioperative infection prevention bundles. Recommendations regarding the use of specific antibiotics for prophylaxis during surgical procedures have been published since the early 1990s and have been frequently revisited since that time. More recently, specific recommendations provided by the National Surgical Infection Prevention (SIP) Project have focused on appropriate timing of administration of prophylactic antibiotics, appropriate drug selection, and the discontinuation of prophylactic antibiotics within 24-h after surgery. However, the actual recommended drugs and dosing regimens has been relatively unchanged over the past 20 years. Limited published data exist regarding appropriate antimicrobial selection and dosing for prophylaxis. The inherent differences and variability in antibiotic pharmacokinetics within various types of surgical patients are rarely addressed. The optimal pharmacodynamic (PD) targets for the recommended antibiotics in prophylaxis are unclear since all currently established PD targets concern treatment of infection rather than prevention. To compound the problem, the antibiotic susceptibilities of clinically isolated pathogens have substantially changed over the past two decades while recommended drug doses have not.

Biography

Pierre Moine has completed his MD in 1989 From Université Paris Ouest, France, and his PhD in 1998 from Université Paris Sud, France. He is now an Associate Professor of Anesthesiology in the University of Colorado Denver, School of Medicine. He has published more than 50 papers in reputed journals.

Pierre.Moine@ucdenver.edu