LETTER TO THE EDITOR

Contradictory Recommendation in the Guideline for Antibiotic Prescription

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Dear Editor,

We have read with interest the detailed and exhaustive guidelines for antibiotic prescription prepared by Khilnani G et al.[1] We want to congratulate the authors for the arduous task.

However, we have certain issues regarding the guidelines' contents. A minor issue is that while listing the most common organisms that cause peritonitis in intensive care unit (ICU), the authors mentioned *E. coli, Klebsiella*, and *Enterobacteriaceae,* which implies that *Klebsiella* is different from *Enterobacteriaceae*, whereas, in reality, *Klebsiella* is a member of the latter.

The major issue is that Khilnani G et al. forwarded the recommendation that in secondary peritonitis, beta-lactam/beta-lactamase inhibitor (BL-BLI) or carbapenems with an anerobic cover (using metronidazole) be used for treatment. We are interested in knowing the basis for such a recommendation. Even in the evidence statement, there is no mention of metronidazole, which was limited to the fact that organisms responsible for secondary peritonitis are susceptible to BL/BLIs or carbapenems. The authors quoted three studies in the preceding discussion.

The first was a more than two-decades-old narrative review of ICU management of intra-abdominal infections (peritonitis). The authors recommended that antimicrobial regimens for high-risk patients with intra-abdominal infections be either carbapenem (imipenem-cilastatin or meropenem) or piperacillin-tazobactam as a single agent. Anti-anerobic agents like metronidazole or clindamycin could be combined with aminoglycosides, aztreonam, or third/fourth-generation cephalosporin.[2] The next one, a more than three decades old study, in which the authors compared piperacillin-tazobactam and imipenem-cilastatin for treating intra-abdominal infections. The authors mentioned that imipenem-cilastatin, like metronidazole, is effective against the most important anaerobic species of *Bacteroides fragilis*.[3] The third study was also a more than one-and-a-half-decade-old French study, which explored the clinical and microbiological profiles of community-acquired and nosocomial intra-abdominal infections. They found that against anaerobic bacteria, metronidazole and carbapenems (imipenem and ertapenem) had comparable efficacy.[4] Thus, none of these studies quoted by Khilnani G et al. mentioned adding an anerobic cover to BL-BLI or carbapenem for managing secondary peritonitis.

Moreover, in the same guideline for antibiotic prescription of critically ill patients by Khilnani G et al., on several earlier occasions, while discussing the management of anerobic infections, it has been mentioned that carbapenems and piperacillin-tazobactam have sufficient anti-anaerobic activity, and so do not warrant the addition of an agent with activity against anaerobes, (e.g., anerobic cover for VAP, antibiotic regimen for cholangitis).[1] Thus, while recommending an anerobic cover (using metronidazole) with BL-BLI or carbapenems in secondary peritonitis, the authors not only contradicted their earlier statements in the same guideline but also did so without any credible scientific evidence.

A recent editorial, while reiterating that carbapenems and BL-BLI (piperacillin-tazobactam) had a satisfactory anaerobic cover, also reported that double anaerobic cover for intra-abdominal infections was associated with a longer length of hospital stay and higher in-hospital postoperative complications (septic shock, postoperative infections and surgical site infections), higher mortality and higher incidence of C difficile infections compared to carbapenems or BL-BLI alone.[5]

We look forward to the authors revisiting the guidelines and addressing our concerns.

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