

Abstract:

Introduction: Critically ill patients and their pharmacokinetics present complexities often not considered by consensus guidelines from the American Society of Health-System Pharmacists, the Infectious Diseases Society of America, and the Society of Infectious Diseases Pharmacists. Prior surveys have suggested discordance between certain guideline recommendations and reported infectious disease pharmacist practice. Vancomycin dosing practices, including institutional considerations, have not previously been well described in the critically ill patient population.

Objectives: To evaluate critical care pharmacists' self-reported vancomycin practices in comparison to the 2009 guideline recommendations and other best practices identified by the study investigators.

Methods: An online survey developed by the Research and Scholarship Committee of the Clinical Pharmacy and Pharmacology (CPP) Section of the Society of Critical Care Medicine (SCCM) was sent to pharmacist members of the SCCM CPP Section practicing in adult intensive care units in the spring of 2017. This survey queried pharmacists' self-reported practices regarding vancomycin dosing and monitoring in critically ill adults.

Results: Three-hundred and sixty-four responses were received for an estimated response rate of 26%. Critical care pharmacists self-reported largely following the 2009 vancomycin dosing and monitoring guidelines. The largest deviations in guideline recommendation compliance involve consistent use of a loading dose, dosing weight in obese patients, and quality improvement efforts related to systematically monitoring vancomycin-associated nephrotoxicity. Variation exists regarding pharmacist protocols and other practices of vancomycin use in critically ill patients.

Conclusion: Among critical care pharmacists, reported vancomycin practices are largely consistent with the 2009 guideline recommendations. Variations in vancomycin dosing and monitoring protocols are identified, and rationale for guideline non-adherence with loading doses elucidated.

Reference:

Flannery AH, Hammond DA, Oyler DR, Li C, Wong A, Smith AP, Yeo QM, Chaney W, Pfaff CE, Plewa-Rusiecki AM, Juang P. Vancomycin Dosing Practices among Critical Care Pharmacists: A Survey of Society of Critical Care Medicine Pharmacists. *Infect Dis (Auckl)*. 2020 Sep 25;13:1178633720952078. doi: 10.1177/1178633720952078. PMID: 33029073;



PMCID: PMC7522823.