

POSTER ABSTRACTS

201. Evaluation of Antimicrobial Stewardship Computer-Assisted Guidance for the Optimal Use of Amphotericin B

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Background. The clinical utility of amphotericin B (AmB) is limited by toxicities, particularly infusion reactions and nephrotoxicity. Practice standards support the use of pre-medications, including acetaminophen, diphenhydramine, meperidine, and normal saline fluid boluses (AmB bundle) to prevent adverse reactions, as well as close monitoring of renal function and electrolytes. To improve compliance to practice

standards, VUMC initiated a computer-assisted decision support guidance for the optimal use of AmB.

Methods. This retrospective, pre-post implementation study compared compliance to AmB standard practices before and after implementation of computer-assisted decision support in November 2012. Eligible patients were defined as all adult inpatients who received at least one dose of AmB (standard or lipid formulation). All patients who received AmB from both the pre-implementation period (November 2011-October 2012) and post-implementation period (December 2012-June 2013) were eligible. The primary outcome was ordering compliance based on appropriate AmB dose and adherence to the standard practice bundle. This bundle included acetaminophen, diphenhydramine, and meperidine pre-infusion, and normal saline boluses both pre- and post-AmB administration. Secondary outcomes included incidence of nephrotoxicity and frequency of infusion-related reactions.

Results. Seventy-nine patients were included (50 pre-implementation, 29 post-implementation). Baseline demographics and renal function were similar in both groups. Overall compliance in ordering the AmB bundle significantly increased post-implementation (12% to 48% with all components ordered correctly, $p < 0.001$). There was no significant difference in the incidence of AKI in patients pre- and post-implementation. Additionally, there was no difference in infusion-related reactions, based on patient-specific factors during the AmB infusion.

Conclusion. In conclusion, a significant increase in ordering compliance was seen after the implementation of the AmB ordering page, allowing increased compliance to standards of practice.

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