

IMPACT OF A STANDARDIZED PHARMACIST-LED INTERVENTION TO PROMOTE GUIDELINE-DIRECTED EMPIRIC USE OF VANCOMYCIN IN ADULT PATIENTS WITH FEBRILE NEUTROPENIA.

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Infectious Diseases Society of America (IDSA) guidelines recommend against the use of antimicrobials targeting gram-positive aerobes in the initial antibiotic regimen for febrile neutropenia (FN) unless patients meet certain criteria. Vancomycin is the most common empiric antimicrobial targeting gram-positive aerobes used in FN. The IDSA guidelines further specify that if initiated empirically, antimicrobials that target gram-positive aerobes should be discontinued after two days if there is no evidence of an aerobic gram-positive infection.

The purpose of this study is to evaluate utilization of vancomycin for FN in accordance with IDSA guidelines following a standardized pharmacist intervention. The secondary purpose is to assess the utilization of growth colony stimulating factor (G-CSF) during episodes of FN and analyze the rates of acute kidney injury related to vancomycin use.

Patients will be retrospectively identified via chart review according to documented antibiotic indication and ICD-10 code. Pharmacist education outlining IDSA criteria for vancomycin initiation and discontinuation will be provided prior to the study period. The study will be designed to compare the two groups in regards to vancomycin utilization. The primary endpoint will be the composite of appropriateness of initiation of empiric vancomycin and discontinuation after two days if no evidence of aerobic gram-positive infection in accordance to the IDSA guidelines. Secondary endpoints will include appropriateness of empiric vancomycin, cumulative days of vancomycin, use of G-CSF, acute kidney injury, re-initiation of vancomycin, and length of stay. Nominal data will be analyzed using the Chi-square test or Fisher's exact dependent on the number of patients included and interval data will be analyzed using a student's t-test.

The results of the study will be used to evaluate NKCH's current empiric antibiotic management of FN and identify if practice changes are warranted.

Learning Objective:

- Describe the results of a pharmacist-led intervention on empiric use of vancomycin in adult patients with febrile neutropenia.