Successful Treatment of Complicated Gram Negative Sinopulmonary Infections Treated in Infectious Disease (ID) Physician Office Infusion Centers (POICs)

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Purpose: To determine the treatment success of complicated gram negative infections treated in a hospital with a dedicated ID POIC.

Methods: A prospective study of all patients (pts) who received IVABs for culture confirmed gram negative infections between 1-8-2005 and 12-31-2009. Data for all drug therapy provided was collected, including drug, dose and duration.

Results: A total of 230 patients (pts) who are antibiotic experienced or those with significant underlying pulmonary disease. These pts often require intravenous antibiotics (69% of patients had non - pulmonary disease). The purpose of this study was to examine the outcomes of therapy for complicated gram negative infections treated in ID POICs.

Abstract

Background: Complicated sinopulmonary infections may involve gram-negative pathogens, including Escherichia coli, Klebsiella pneumoniae, and Pseudomonas aeruginosa. In these settings, IVABs are used to treat the infection, but the overall treatment success is unknown. The purpose of this study was to examine the outcomes of therapy for complicated gram negative infections treated in ID POICs.

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Introduction

Respiratory infections account for significant morbidity and mortality among patients. Lower respiratory tract infections were the first leading cause of death worldwide in 2012. Infections overall and in a moderate risk (MDR) setting are major causes for discharge. Although antibiotics are available, many patients are admitted to the hospital setting. The purpose of this study was to examine the outcomes of therapy for complicated gram negative infections treated in ID POICs.

Methods

A retrospective database and chart review was conducted to identify all patients ≥18 years with a confirmed gram-negative infection treated in our facilities. A total of 230 patients were identified who met the criteria for inclusion in the study. All patients were treated with IVABs for culture confirmed gram negative infections. The most common AE was gastrointestinal disturbance (n=10, 40%).

Microbiologic:

22.20% of patients had polymicrobial infections, which included 4 gram-positive pathogens and 3 with coagulase-negative staphylococci.

Clinical:

40% of patients achieved a successful outcome as defined by those who were cured or improving at completion of IVAB.

Discussion

Trends indicating increasing prevalence of gram negative respiratory pathogens being treated in the outpatient setting.

Conclusions:

Successful treatment of complicated gram negative sinopulmonary infections was achieved in 69% of patients. The most common AE was gastrointestinal disturbance (n=10, 40%).

References

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