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Evaluation of Antibiotic Prescribing Patterns for Community Acquired Pneumonia
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Introduction

• Clinical guidelines recommend a total antibiotic length of therapy (LOT) of 5-7 days for community acquired pneumonia (CAP)1
• Empiric therapy should include a respiratory fluoroquinolone or a combination of a β-lactam antibiotic plus azithromycin1
• An analysis of United States hospitals found the median CAP LOT (inpatient plus outpatient) was approximately 10 days2

Evaluation

• Total LOT exceeded the 7 day breakpoint by 1.4 days with outpatient LOT as the major contributor to excess antibiotic days
• Prescribed antibiotic classes were consistent with guidelines and most frequently included 3rd generation cephalosporins, tetracyclines, macrolides, and fluoroquinolones
• Limitations included unassessed antibiotic days prior to admission and outpatient CDI

Purpose

• To evaluate duration of antibiotic therapy and prescribing patterns for non-ICU CAP at St Cloud Hospital, a tertiary community hospital

Methods

• IRB-approved, retrospective chart review of patients discharged with a diagnosis of CAP between January 1, 2018 and June 30, 2018
• Total LOT, inpatient LOT, outpatient LOT, antibiotics utilized, and inpatient Clostridioides difficile infection (CDI) were evaluated

Results

72 Screened
22 Excluded
50 Included

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Results

72 Screened
22 Excluded
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Total Antibiotic Length of Therapy in Days

2% 40% 58%

Average Total LOT = 8.4 Days

Inpatient LOT
Outpatient LOT

Antibiotic Prescribing Patterns

60%
50%
40%
30%
20%
10%
0%

Inpatient
Outpatient

0% 10% 20% 30% 40% 50% 60% 70%

2nd gen cephalosporins
3rd gen cephalosporins
4th gen cephalosporins
Tetracyclines
Macrolides
Fluoroquinolones
Glycopeptides
BL/BLLIs*

Prescribing calculations: Inpatient = days of antibiotic class / total days of therapy; Outpatient = prescriptions of antibiotic class / total number of prescriptions

*BL/BLLIs = β-lactam/β-lactamase inhibitors

Conclusion

• St. Cloud Hospital has an opportunity to improve CAP antibiotic length of therapy by targeting outpatient prescribing patterns

References


Disclosure

• Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation.

Gregory Schaefer: Nothing to Disclose
Ann Wigton: Nothing to Disclose