Improvement of antibiotic prescribing for outpatient community acquired pneumonia in the emergency department

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BACKGROUND

- The Infectious Diseases Society of America (IDSA) guideline on treatment of community acquired pneumonia (CAP) was updated in October of 2019.
- The updated guidelines no longer recommend macrolide monotherapy for outpatient CAP in areas where resistance to *Streptococcus pneumoniae* (pneumococcus) is > 25%.
- Approximately 50% of pneumococcus isolates were resistant to azithromycin according to Blount Memorial Hospital's 2019 antibiogram.
- In response, two ED interventions took place to incorporate the updated guidelines into practice.
- First, an ED discharge order set was created to guide optimal antibiotic selection.
- Second, ED providers received targeted, physician-led education and a reference sheet created by the antimicrobial stewardship committee.

OBJECTIVES

Primary objective:

- Determine the impact of a discharge order set and provider education on rates of optimal antibiotic prescribing for patients with community acquired pneumonia treated in the emergency department.

Secondary objective:

- Evaluate the impact of provider education and a discharge order set on clinical outcomes such as treatment failure and safety.

METHODS

Design:

- IRB-approved
- Retrospective, observational, single-center, pre-post intervention cohort study

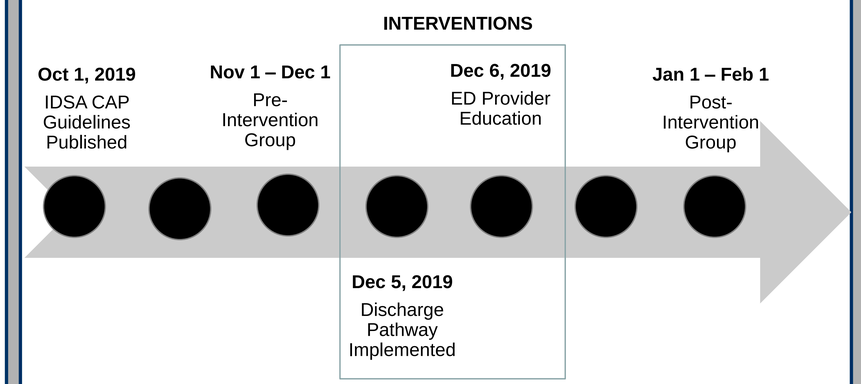
Inclusion criteria:

- 18 years or older
- Primary discharge diagnosis of CAP in emergency department
- Discharged with a prescription for antibiotics for CAP between Nov. 1, 2019 – Dec. 1, 2019 for pre-intervention and Jan. 1, 2020 – Feb. 1, 2020 for post-intervention cohort

Exclusion criteria:

- Immunocompromised patients
- Patients admitted to the hospital or transferred to another facility

TIMELINE



RESULTS

Tables of anticipated results to be reported

Primary Outcome Data

	Pre-Intervention N =	Post-Intervention N =	Δ	P-value
Optimal Antimicrobial Therapy, n (%)				
Optimal Therapy (with comorbidities), n (%)				

Secondary Outcome Data

Treatment failure, n (%)				
Patients with treatment-related adverse effects, n (%)				

CONCLUSIONS

Research in progress

DISCLOSURES/CORRESPONDENCE

The authors of this presentation have the following information regarding possible financial or personal relationships with commercial entities that have a direct or indirect interest in the subject matter of this presentation to disclose:

Sarah Jesse	Nothing to disclose
Patrick Blankenship	Nothing to disclose
Madison Iman	Nothing to disclose
Fern Pruss	Nothing to disclose
Lauren Ladd	Nothing to disclose
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