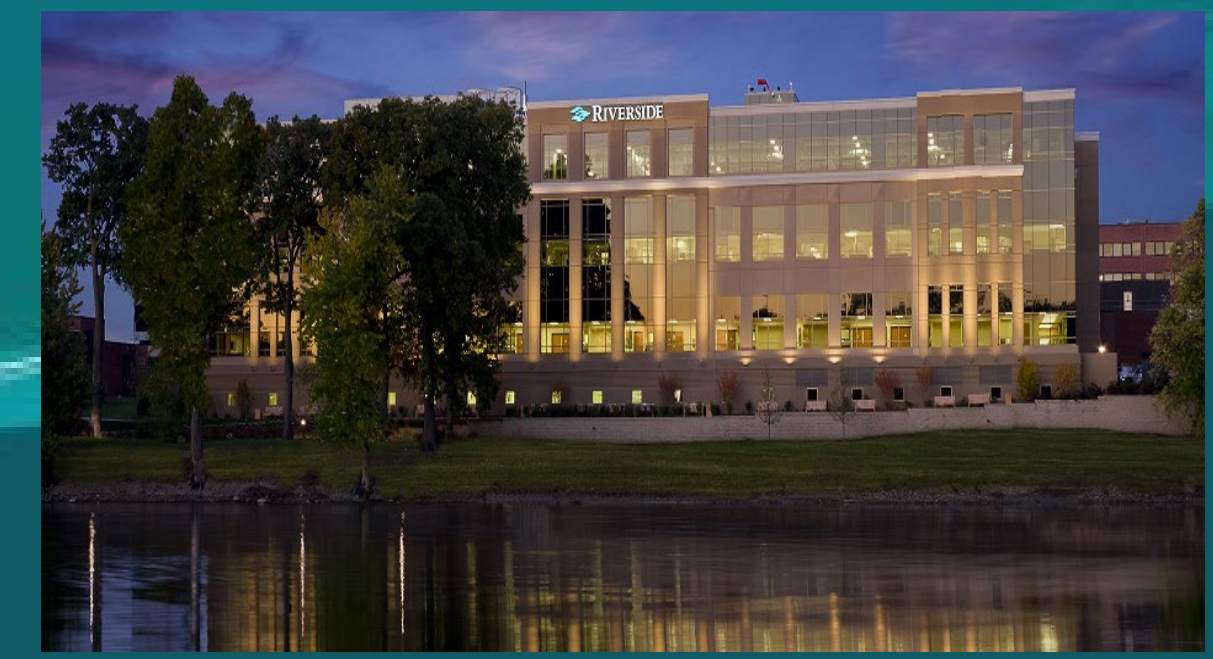




Reducing Community-Acquired Pneumonia Treatment Duration Rates

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Background

- The 2019 Infectious Disease Society of America (IDSA) Community-acquired Pneumonia (CAP) guidelines recommend a treatment duration of 5 days including switching from parenteral to oral antibiotics and either using the same drug or the same drug class.¹ Most patients will achieve clinical stability within the first 48 to 72 hours of starting antibiotic treatments.
- The Riverside Medical Center (RMC) CAP order-sets default to a treatment duration of 7 days, which exceeds the guideline-recommended 5-day course. However, no adjustments are being made to the treatment duration when orders are placed, leading to an unnecessary increase in the total duration of antibiotics for both inpatient and discharge use.

Purpose

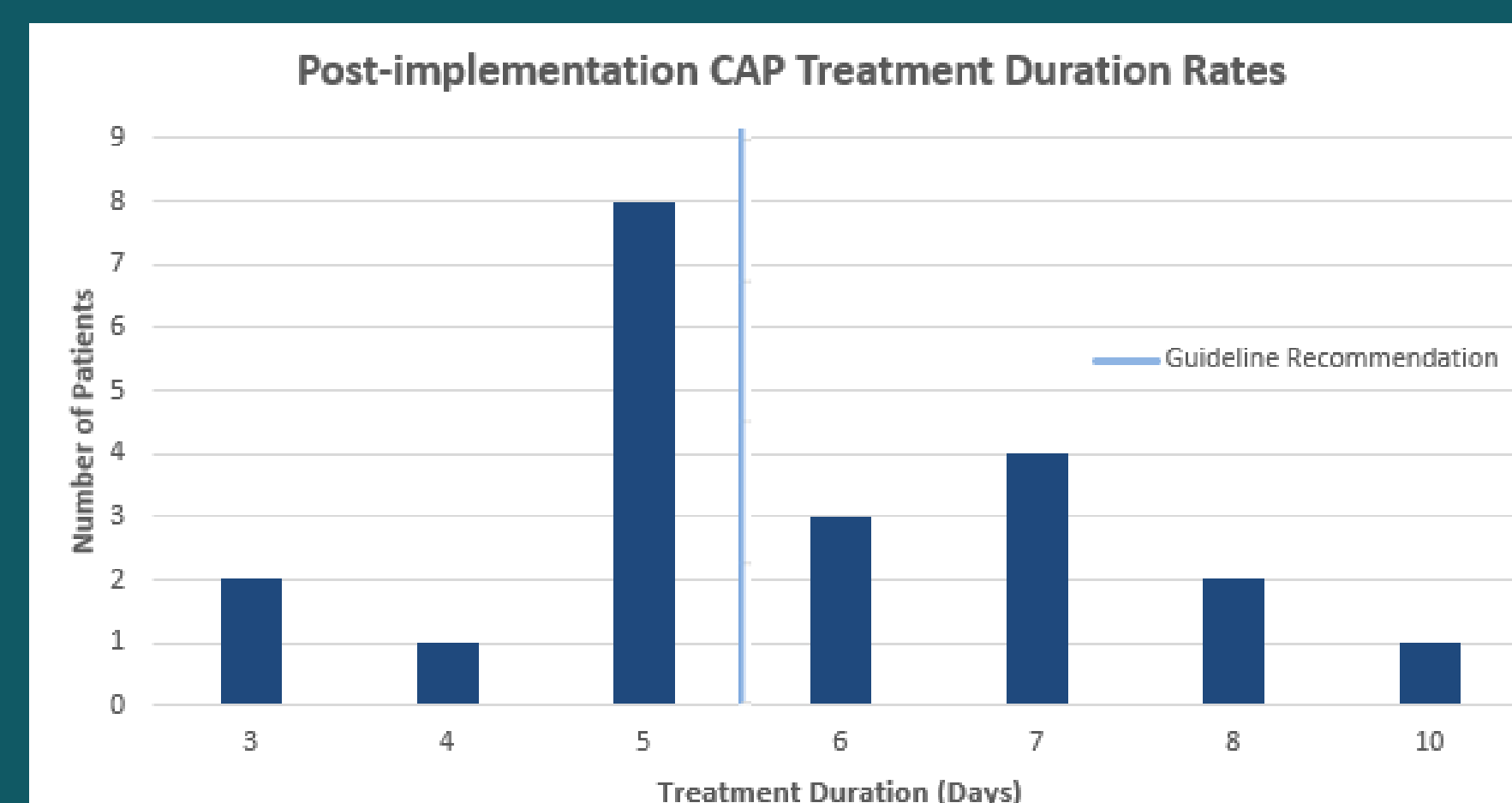
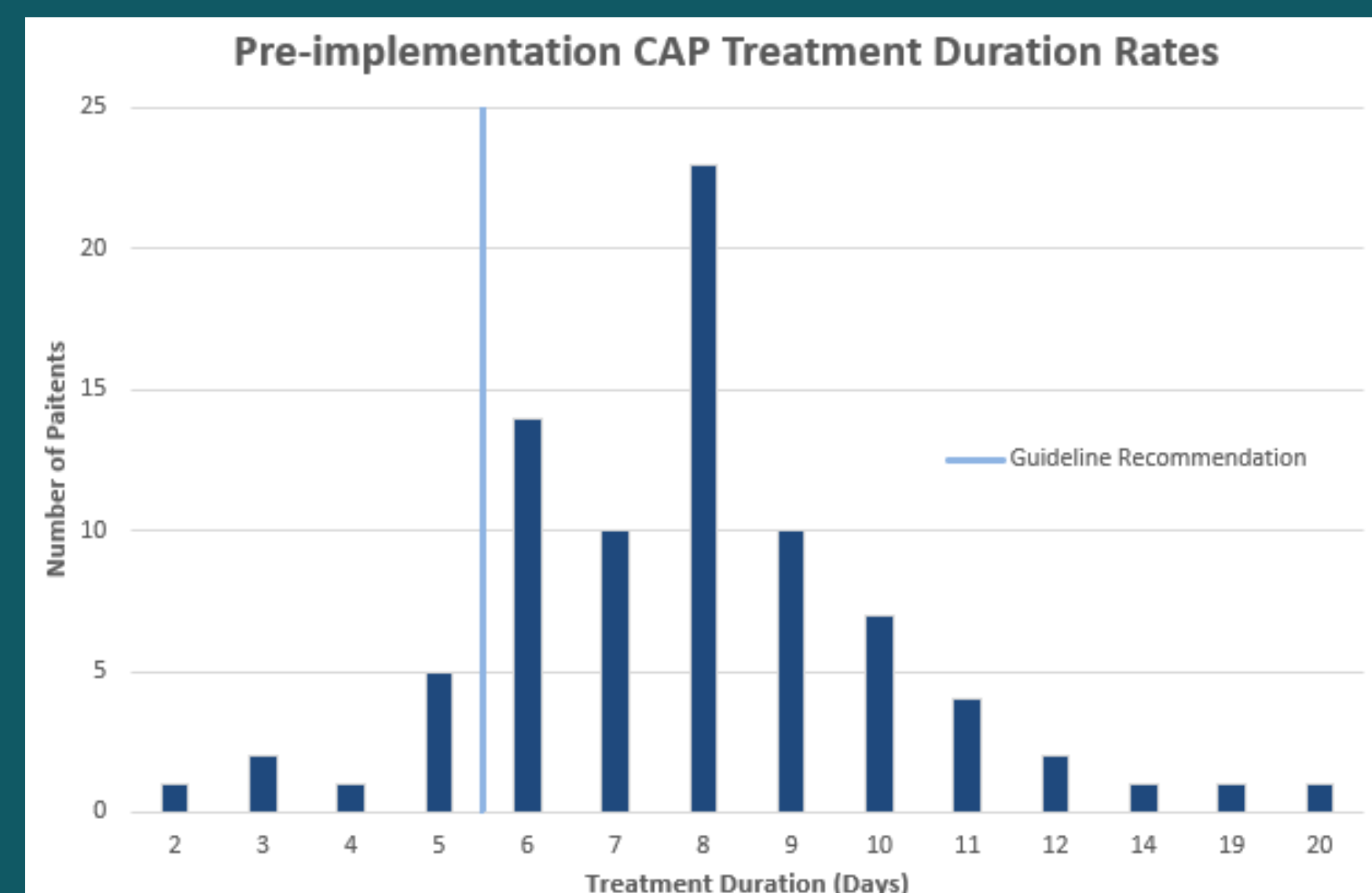
Facilitate the proper antibiotics prescribing of inpatient CAP treatment.

To evaluate the CAP prescribing habits of RMC physicians.

Methods

- Retrospective chart review of antibiotic treatment durations for 279 RMC patients diagnosed with CAP and hospitalized between October 1, 2023, and October 31, 2024.
- Post-implementation data collection January 1, 2025-March 19, 2025
- Data collection includes: treatment duration, antibiotics prescribed on discharge, and ordering provider specialty.
- Inclusion criteria:
 - Age > 18 years old
 - True CAP diagnosis according to the IDSA guidelines (chest imaging opacities, elevated WBC [$>10,000$ cells/ μ L], and positive symptoms including fever, dyspnea, sputum production, and cough)
- Exclusion criteria:
 - Methicillin-resistant *Staphylococcus aureus* or *Pseudomonas aeruginosa* CAP
 - High-dose 4.5 gram piperacillin/tazobactam dosing (*Pseudomonas* coverage)
 - Those with coexisting viral or bacterial infections

Results



Conclusions

Pre-implementation:

- Mean antibiotic treatment duration:
 - Inpatient: 3-4 days
 - Outpatient: 5-6 days
 - Total: 8 ± 3 days
- As hypothesized, total treatment duration prescribed amount frequently exceeds the 5-day course of antibiotics.

Post-implementation:

- Mean antibiotic treatment duration:
 - Inpatient: 2-3 days
 - Outpatient: 3-4 days
 - Total: 5 ± 2 days
- Internal medicine providers prescribed the highest amount of antibiotics, while infectious disease providers prescribed the least amount.
- While having to exclude many patients due to viral infections, treatment durations rates had also decreased, with treatment lasting roughly 5 days.
- Pharmacist education as well as having an antimicrobial stewardship pharmacist helped reduce CAP duration rates closer to guideline recommendations.

References

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Disclosure Information

Nothing to disclose