



Reducing Antibiotic Use for Acute Bronchitis in the Outpatient Setting: Strategies for Improvement

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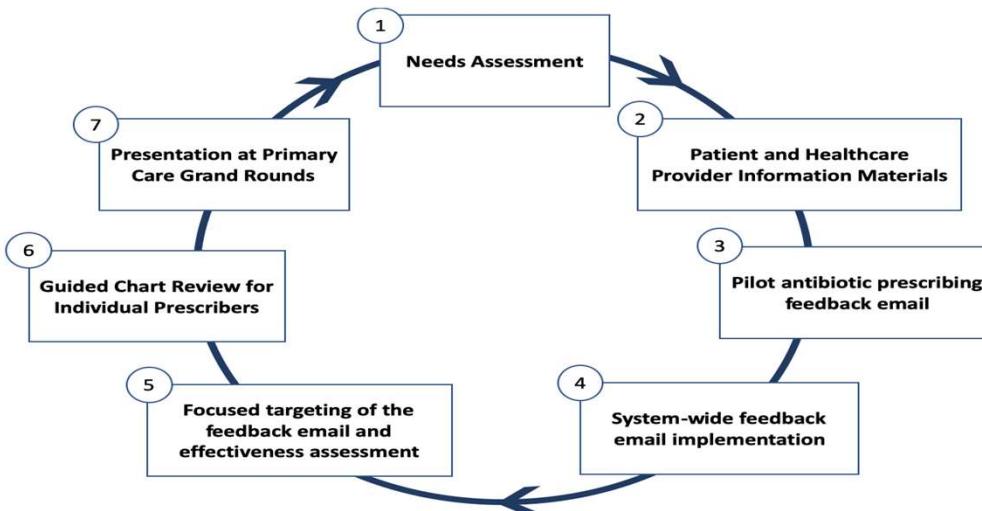
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Background

- Antibiotics are unnecessary for acute uncomplicated bronchitis (AUB)
- Baseline data for Tennessee Valley Healthcare System (TVHS) community-based outpatient clinics (CBOCs) showed 63% of AUB cases received an antibiotic.
- This quality improvement (QI) project aimed to decrease antibiotic prescribing for AUB in CBOCs by 50% by April 2020 and sustain a reduced rate over the next 12 months.

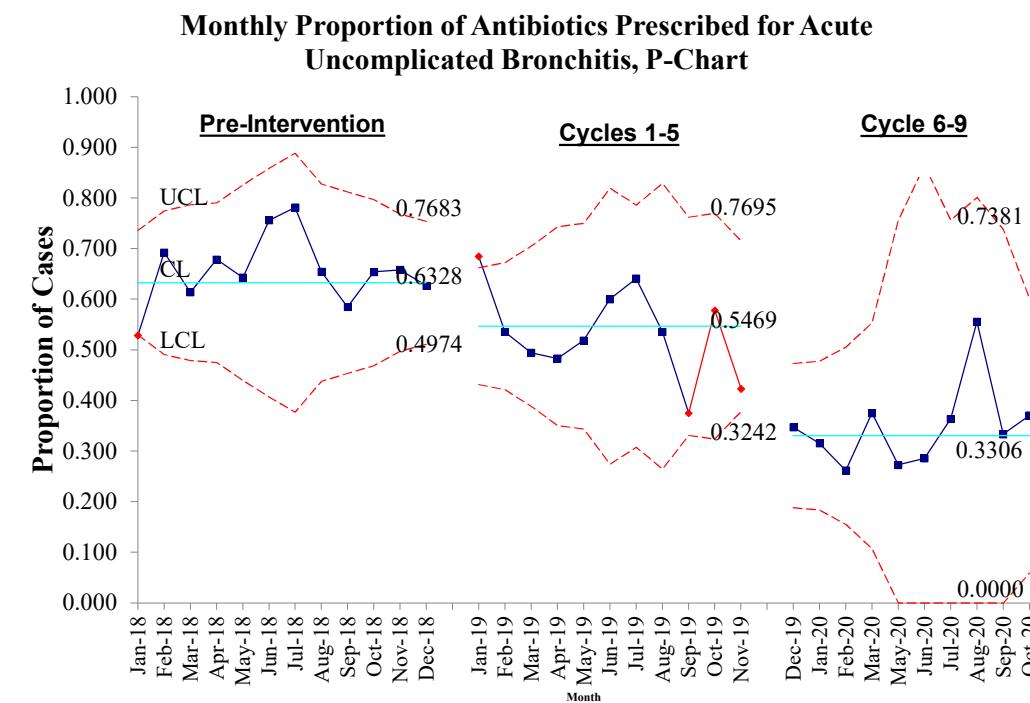
Methods- PDSA Cycles



Results 1- PDSA Cycles and Overall Impact

- PDSA 1:** Semi-structured interviews were conducted with 69 (80%) prescribers. Patient education was requested.
- PDSA 2:** Sixteen of 17 (94%) CBOCs received patient education materials.
- PDSA 3:** Fifty percent (2/4) of providers in the pilot email gave favorable feedback. All prescribers (100%) received monthly feedback by June 2019.
- PDSA 4 & 5:** VA CBOCs sustained a decrease in prescriptions on average 11.3% compared to contract CBOCs ($P = 0.017$, 95% CI 2.22%-20.4%) from February 2019- September 2019.
- PDSA 6:** In December 2019, 5/14 (42%) providers had chart reviews and special cause was noted with 35% of AUB/URI-NOS cases receiving antibiotics.
- No negative impacts noted in balancing measures.
- Overall:** The average antibiotic prescribing for AUB decreased from 63% at baseline to 33%, a 48% reduction, by October 2020.

Results 2- Statistical Process Control Chart



Conclusion

- Face-to-face meetings increased engagement in QI initiatives with a sustained decrease in VA CBOC prescribing, suggesting greater alignment to the mission of evidence-based practice within the VA.
- Electronic mail was not efficacious in communicating with CBOCs.
- Targeting high prescribers should be considered priority in reducing antibiotics outpatient for settings with limited resources.

Next Steps

- Over the next year, monthly antibiotic prescriptions for acute bronchitis and URI NOS will continue to be tracked
- Natural language processing of visit notes to more efficiently and effectively collect data