

Lake Superior
Quality Innovation
Network

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Stratis Health serves Minnesota as part of
the Lake Superior Quality Innovation Network



Interactive Group Session: Garnering Leadership Support for Antibiotic Stewardship in Your Facility

Facilitator: Brett Whyte, MD, Winona Health

Clinical Leadership

- Question 1: Do you have a clinical leader for antibiotic stewardship (AS) in your facility?
 - If yes, what is her/his professional role? How was she/he designated as the AS leader?
 - If you do not have an AS clinical leader, what steps could you take to identify one?

Administrative Leadership

- Question 2: Have you or others in your facility taken steps to engage administrative leadership?
 - If yes, what did you do?
 - If no, what steps could you take?

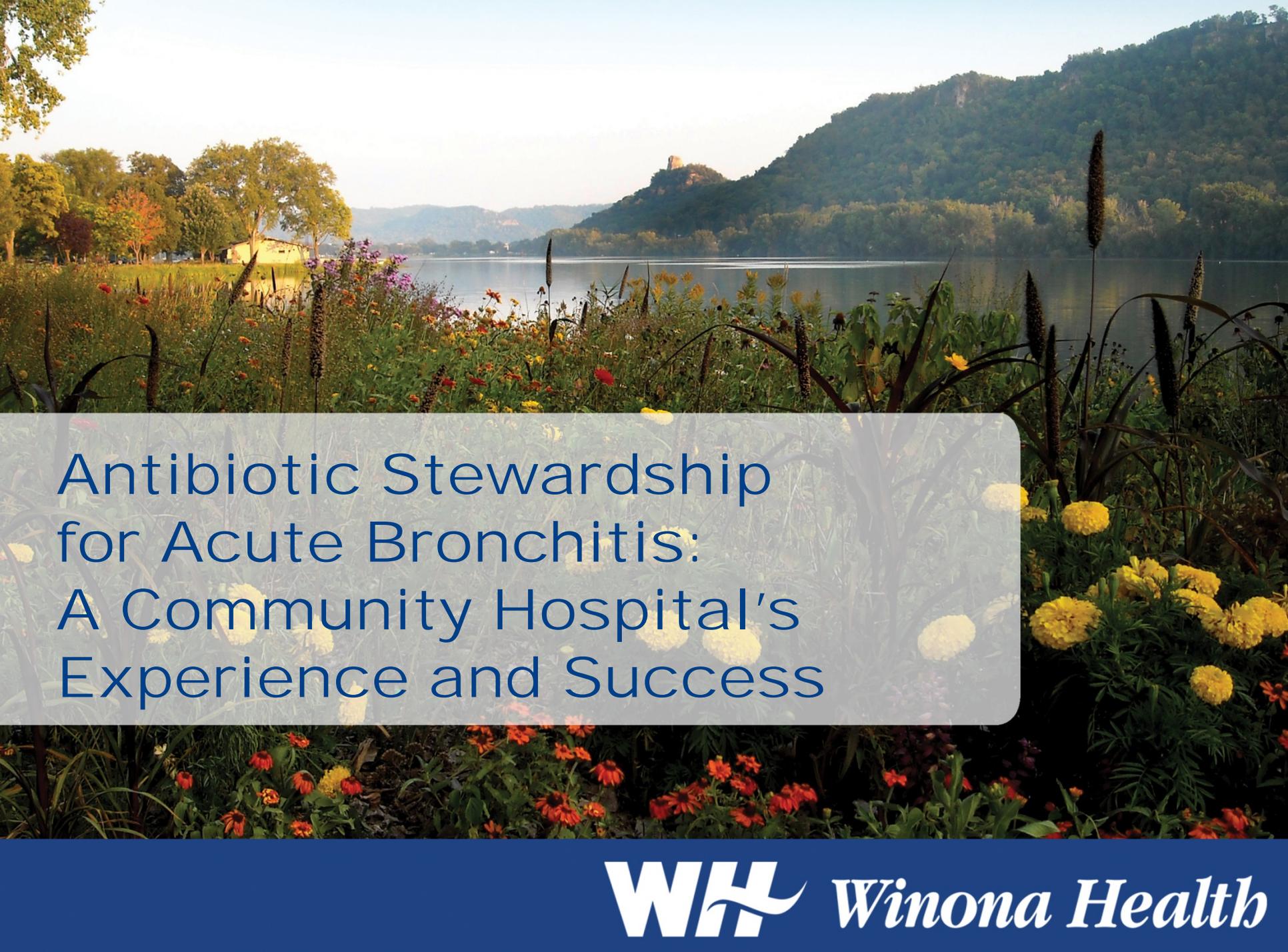
Policy and Practice

- Question 3: Does your facility have a formal AS policy and program?
 - If yes, what is the structure and what are the main objectives?
 - If you do not have a formal policy, why not? What are the major barriers?

Tracking and Reporting

- Does your facility track and report data on antibiotic prescribing and use that could be used to make a business case for AS?
 - If yes, what and how are you tracking and reporting?
 - If no, what tracking would you like to put in place?





Antibiotic Stewardship
for Acute Bronchitis:
A Community Hospital's
Experience and Success



WH Bronchitis Treatment Pathway

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Background/Current State

- “10 different ways to treat bronchitis” and providers were unable to support one another with continuity in care!
- Unnecessary revisits due to adverse reactions, sometimes severe, to improperly prescribed antibiotics.
- Standardizes treatment of “bronchitis” consistent with evidence based National Guidelines and Antibiotic Stewardship programs.

Clinical Standard Work Pathway: Adult Acute Bronchitis

INTRODUCTION:

Acute Bronchitis is a clinical condition characterized by cough, with or without sputum production, which lasts for at least five days. Symptoms are the result of inflammation of the large airways (bronchi) with approximately 5% adults affected annually, with a higher incidence in the winter and fall. It is most often due to a viral infection and is self-limiting, typically resolving in 1-3 weeks.

Numerous studies have proven antibiotic use is not helpful, nor appropriate in treatment of acute bronchitis in adults. In the absence of signs of pneumonia (i.e., fever, tachypnea, rales, signs of parenchymal consolidation) or diagnosis of COPD, treatment should be focused on **patient education and supportive care.**

Diagnosis can often be made based on history and clinical exam. Further work up should be reserved for cases in which pneumonia is suspected, clinical diagnosis is uncertain or when results would change management (e.g. a positive influenza test in a patient who meets criteria for antiviral therapy).

This pathway provides a clinical decision-making model based on evidence based medicine and current practice guidelines. Use of this pathway contributes to antibiotic stewardship and Winona Health and quality care for our Winona Health population.

Exclusion criteria from this pathway include: children, and patients with diagnosis of COPD, Bronchiectasis, or immunocompromised state.

KEY POINTS:

- ***Treatment should focus on supportive care and patient education*** in the absence of any signs of pneumonia, COPD, bronchiectasis or immunocompromised state.
- ***Antibiotics are NOT indicated for Adult Acute Bronchitis, uncomplicated.*** Antibiotics misuse and overuse leads to: drug allergic reactions, antibiotic related infections, antibiotic resistance, increased financial burden, wasted resources and even death.
- ***Further workup should be reserved for cases where results would change management.***

REFERENCES:

"Acute Bronchitis in Adults", Online: https://www.uptodate.com/contents/acute-bronchitis-in-adults?source=search_result&search=Bronchitis&selectedTitle=1~150.

"Acute Bronchitis" New England Journal of Medicine Clinical Practice, Online: <http://www.nejm.org/doi/pdf/10.1056/NEJMcp061493>

CDC "Preventing and Treating Bronchitis" CDC, Patient Handout, Online: <https://www.cdc.gov/antibiotic/>

METRICS:

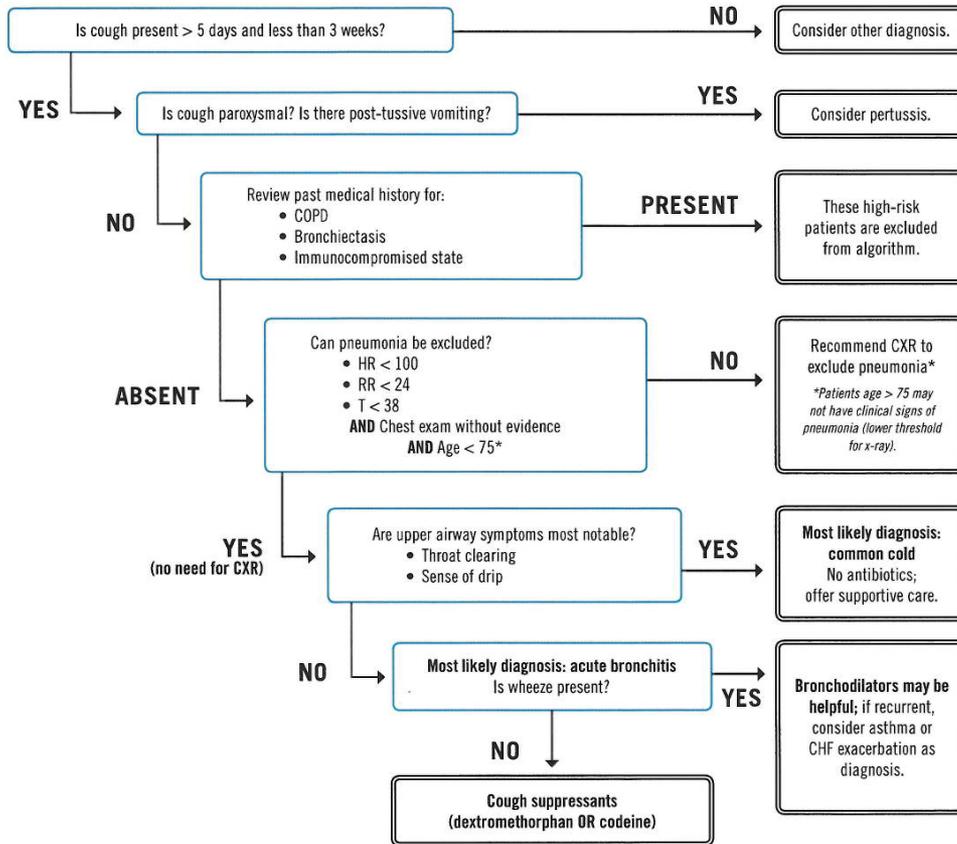
1. Less than 6% of patients diagnosed with Acute Bronchitis received an Antibiotic.
2. Less than 6% of patients diagnosed with Acute Bronchitis have further testing (i.e. labs, chest x-ray).
3. All patients diagnosed with Acute Bronchitis receive patient education handout.
4. Those patients who receive an Antibiotic will have an identifiable risk factors such as COPD, bronchiectasis or immunocompromised state.

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Adult Acute Bronchitis Algorithm

Provided by Harvard Vanguard Medical Associates



Sources:
CDC

“Get Smart Champaign”
UpToDate

Patient Education on
Bronchitis

ACUTE BRONCHITIS PEARLS

Do:

- Antitussives can be helpful (dextromethorphan OR codeine)
- Bronchodilators helpful in select patients with wheezing

Don't:

- Antibiotics *not* recommended; < 6% acute bronchitis bacterial and most of those cases little improvement with antibiotics. Smokers without COPD are not high risk and do not need antibiotics.
- Expectorants and mucolytics not helpful (guaifenesin [Mucinex])

Risk factors for complications — may consider antibiotics in these patients:

- COPD or bronchiectasis
- Immunocompromised
- CHF

Smokers, diabetics, and asthmatics are **not high risk** for bacterial infection.

*Patients age > 75 may have pneumonia even without focal chest findings.

Chest 2006;129:95S–103S.



Data:

- National data shows approximately 60% (as of 2017) of people reporting bronchitis symptoms were inappropriately treated for bronchitis with antibiotics. Goal is less than 6%
- Semi-Automated data-mining through Cerner at Winona Health placed estimates at 30-35% of patients at WH inappropriately receive ab's.



Staff Education

- Lunch and Learn/Provider and Staff CME Training - January
- Educate all staff, including nursing, ancillary and support - ongoing
- UC, ED, Primary Care providers discussion, more cohesive and consistent in treatment: provider group discussion, training, published pathway.



Post Intervention Data

- Informal discussion percentage decreased to 20%
- Formal education and training percentage of treatment decreased to 5%!



Outcome, Results & Data:

- Staff is better able to support one another across WH Campus and providers are more confident with an organization wide supported treatment plan.
- Decrease in patient visits requesting, even demanding inappropriate antibiotic prescriptions improves thru patient education. Patients very accepting after education.
- Decreased adverse reactions to unnecessary antibiotic prescriptions
- Standardized work method provides framework for future pathways and treatment protocols. Future work underway on “sinusitis” pathway.



Learning

- Breakdown silos and compartmentalization barriers throughout organization through education, feedback and discussion between departments
- Systematic review finds provider's perceptions of patient desire for antibiotics, (or other RX), was strongly associated with antibiotic (or other RX) prescription, more so than actual patient desire!



Conclusion

- Education is effective!
- In the end less antibiotic use decreases costs, morbidity and saves lives.





Questions?