# Lead the Way: Effective Antibiotic Stewardship Practices for Common Outpatient Infections

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# Objectives



1. Understand the importance of outpatient antibiotic stewardship

2. Recognize the factors that drive excessive and inappropriate antibiotic prescribing in outpatient settings

3. Identify effective strategies for optimal antibiotic prescribing for common outpatient infections

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# What's Happening?

Understand the importance of outpatient antibiotic stewardship

# Poll Question

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What % of antibiotics are prescribed outpatient in human healthcare?

a) 20%

b) 40%

c) 60%

d) 80%

# Poll Question



What % of antibiotics are prescribed outpatient in human healthcare?

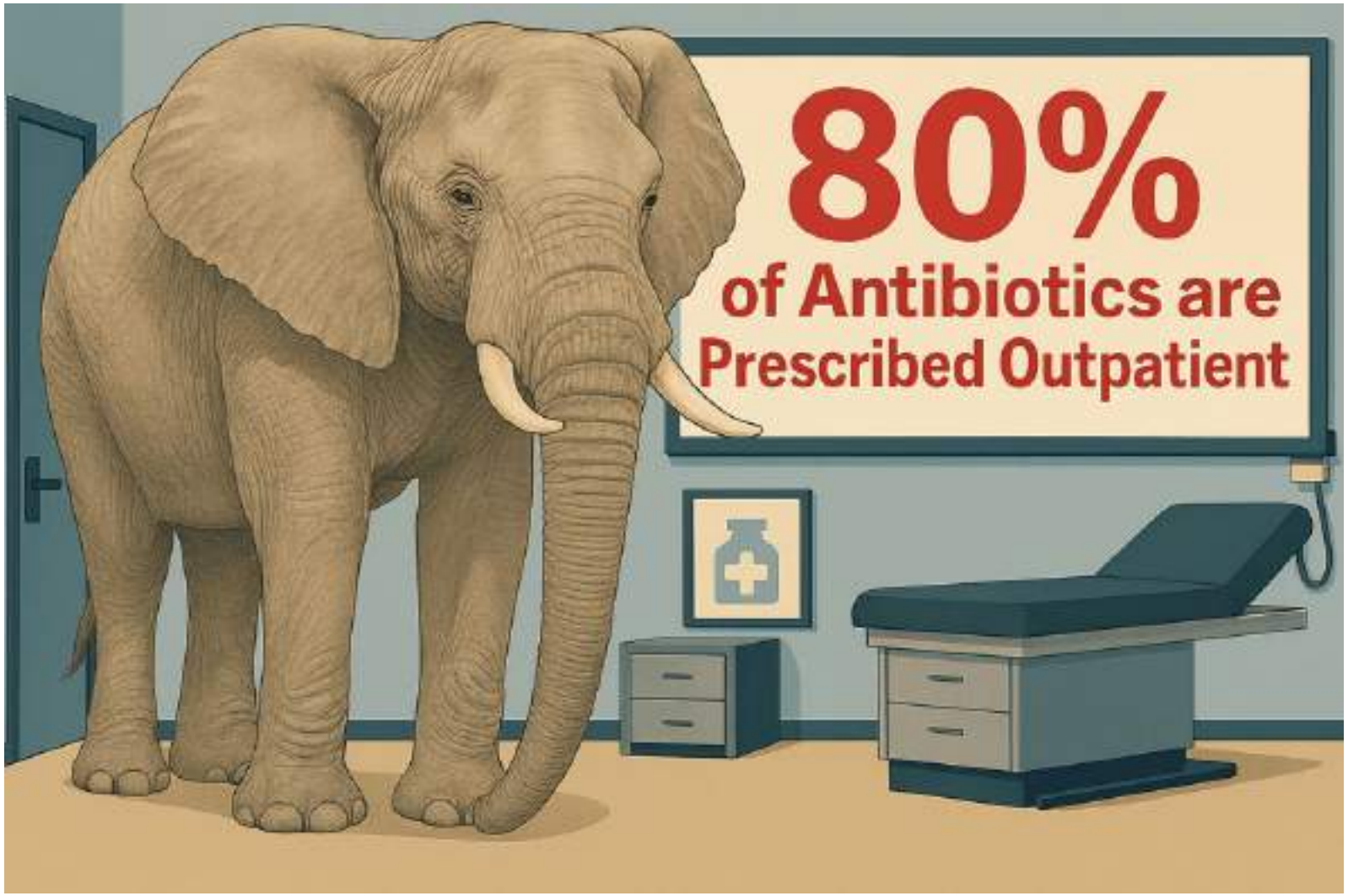
a) 20%

b) 40%

c) 60%

d) **80%**

# Majority of human antibiotic USE occurs outpatient




Core Elements of Outpatient Antibiotic Stewardship | Antibiotic Prescribing and Use | CDC

Duffy et al. J Clin Pharm Ther 2018;43:59-64

# Poll Question

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What % of antibiotic expenditures occur outpatient in human healthcare?

a) 20%

b) 40%

c) 60%

d) 80%

# Poll Question

Antimicrobial Stewardship | SUMMIT

What % of antibiotic expenditures occur outpatient in human healthcare?

a) 20%

b) 40%

c) **60%**

d) 80%

# Majority of human antibiotic EXPENDITURES occur outpatient

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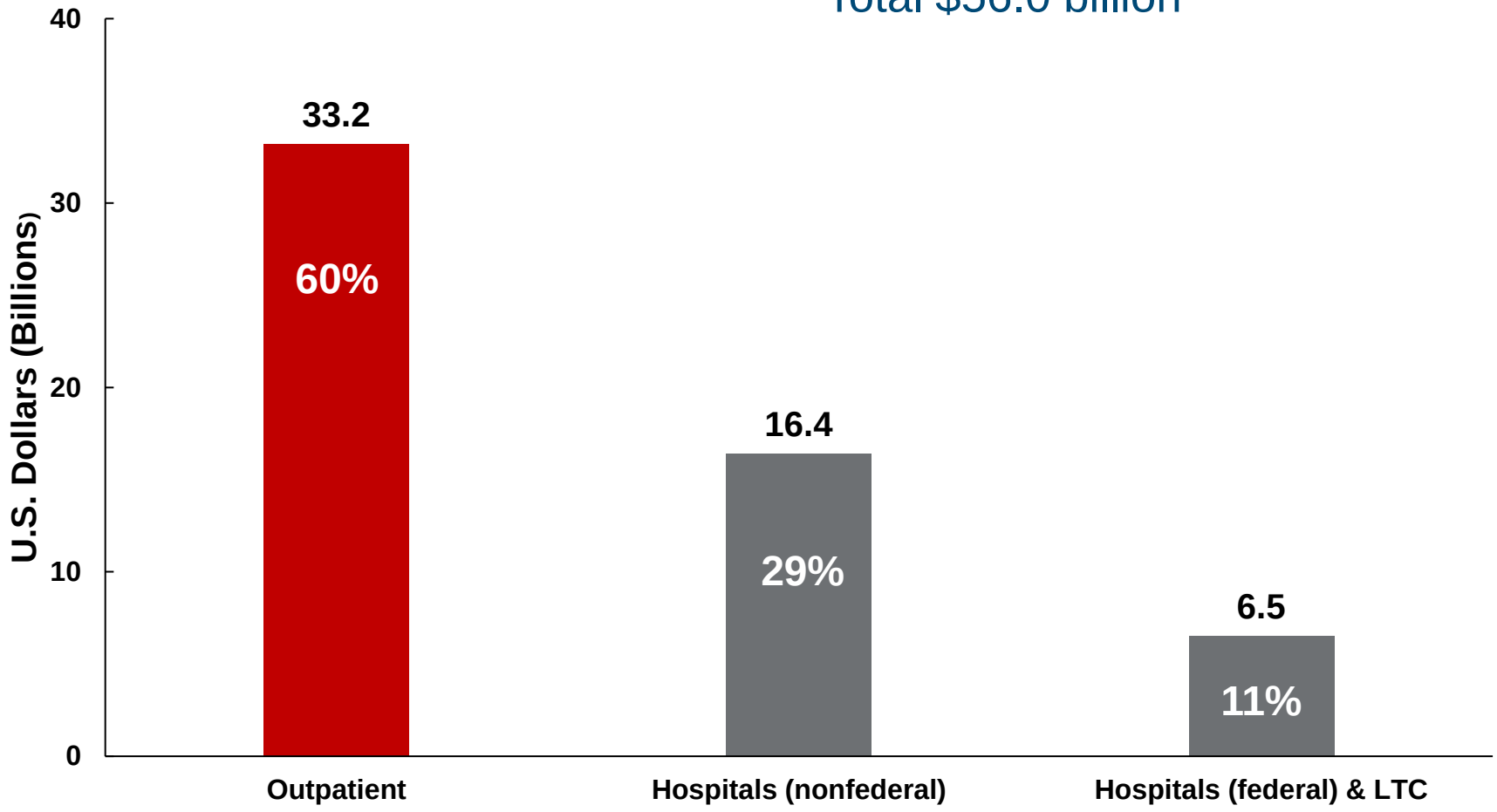
## Antibiotic expenditures by healthcare setting in the US 2010-2015

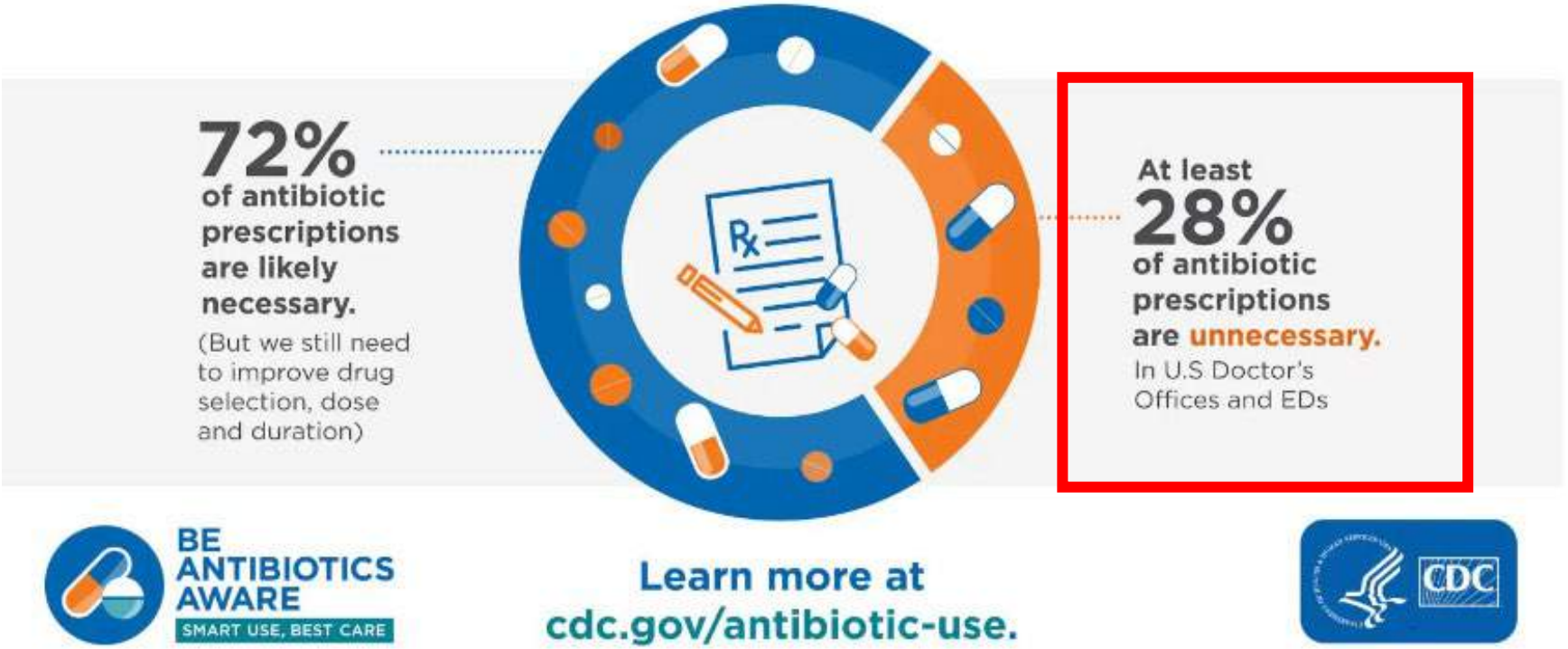
Total $56.0 billion




Suda et al. CID 2018;66(2):185-190

# One third of outpatient antibiotics are unnecessary






https://www.cdc.gov/antibiotic-use/hcp/data-research/antibiotic-prescribing.html

# Half of outpatient antibiotics are inappropriate

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## Common bacterial infections

**31-36%** of **children**

**43-56%** of **adults**

**... received an inappropriate type of antibiotic.**
(i.e., not the recommended, or first-line, antibiotics based on medical guidelines).

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Inappropriate Antibiotic Prescribing Leads to Increased Costs Complications | The Pew Charitable Trusts (pewtrusts.org)

# Unnecessary and inappropriate outpatient antibiotics drive avoidable health care costs

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**Suppurative middle ear infections**

**$25.3** million (children)

**Pharyngitis** (sore throat)

**$21.3** million (children)

**$49.6** million (adults)

**Sinusitis** (sinus infections)

**$7.1** million (children)

**$19.1** million (adults)

**Viral upper respiratory infections** (the common cold)

**$19.1** million (children)



Inappropriate Antibiotic Prescribing Leads to Increased Costs Complications | The Pew Charitable Trusts (pewtrusts.org)

# Antibiotic-related adverse events

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**1 out of 5**
medication-related visits to the emergency room are from reactions to antibiotics.


People are 7 to 10 times more likely to get *C. difficile* infection while on antibiotics and during the month after.

CDC

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# Antimicrobial resistance undermines modern medicine

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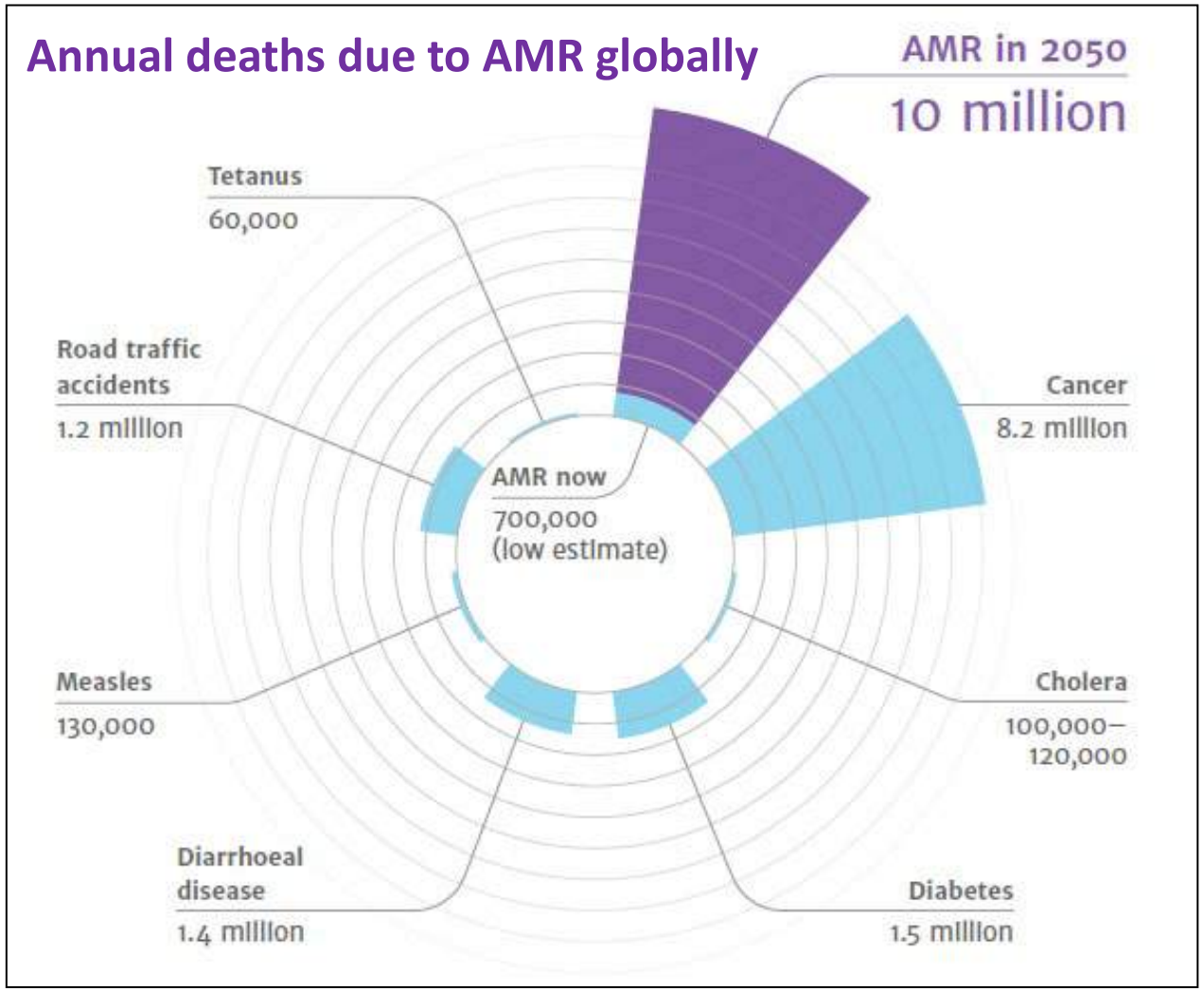


By 2050, **more** annual deaths will be attributed to **AMR** than **cancer**.

AMR, Antimicrobial resistance

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Wellcome Trust and the United Kingdom Government 2016
https://amr-review.org/sites/default/files/160518_Final%20paper_with%20cover.pdf

wellcome trust

# Fast outpatient growth expected in next decade



**10-year projections for anticipated shifts in sites of care delivery:**

- Outpatient (OP) care patient volumes projected to grow 18%
- Inpatient (IP) care patient discharges to grow 5% and LOS to increase 10%
- Post-Acute Care to grow 31%


# Importance of outpatient antibiotic stewardship
# Key points

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- Outpatient antibiotics comprise at least 80% of human antibiotic use
- 30%-50% of antibiotics prescribed in U.S. outpatient settings are unnecessary or inappropriate
- Improvement of antibiotic use in the outpatient setting is **imperative** and **needed urgently** for patient care on individual and community level



https://www.cdc.gov/antibiotic-use/core-elements/outpatient.html Accessed 8/10/2023

# What's Causing the Problem?

Recognize the factors that drive excessive and inappropriate antibiotic prescribing in outpatient settings

# Poll Question



What contributes to excessive and inappropriate antibiotic prescribing in outpatient settings?

a) Inability to keep up with clinical recommendations

b) Patient demand for antibiotics

c) Unnecessary testing

d) All the above

# Poll Question

What contributes to excessive and inappropriate antibiotic prescribing in outpatient settings?

a) Inability to keep up with clinical recommendations

b) Patient demand for antibiotics

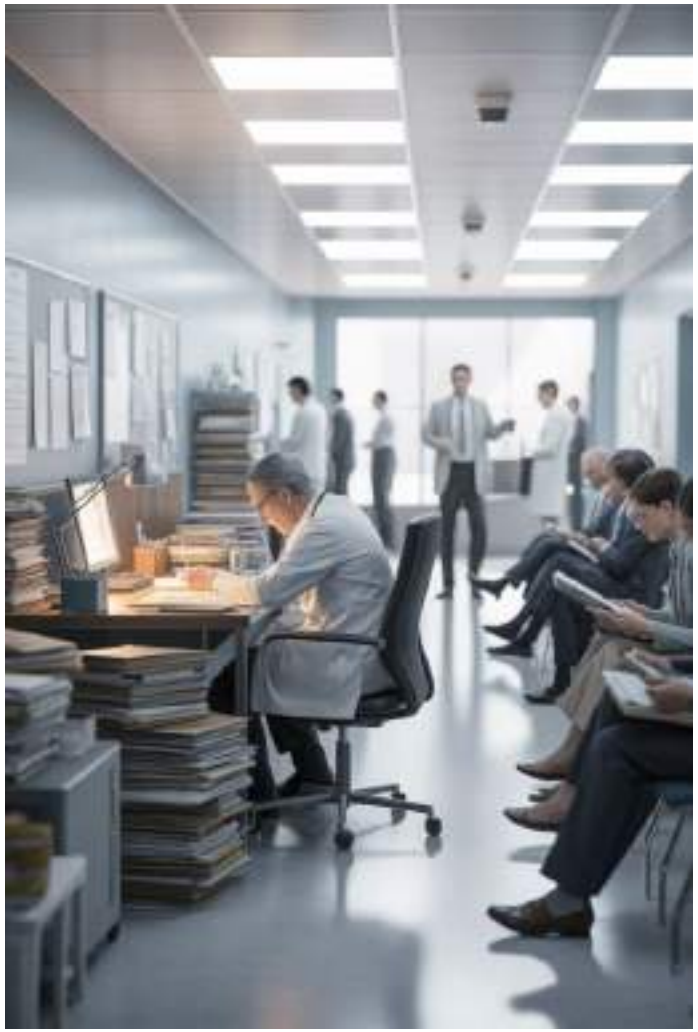
c) Unnecessary testing

d) **All the above**

# Lack of awareness or access to treatment guidelines



- Difficult to keep up with new recommendations
- Too many recommendations and details
- Conflicting recommendations from national organizations
  - e.g. definitions and management recommendations for adult acute sinusitis differ between IDSA and AAO



IDSA, Infectious Diseases Society of America
AAO, American Academy of Otolaryngology

# Unnecessary testing

**Overtesting** in infectious diseases results in:

- Overdiagnosis
- Missing the true diagnosis
- **Unnecessary antibiotic treatment**
- Risk of preventable harm

Fabre et al. Infect Control & Hosp Epidemiol 2023;44:178–185

# Multiple factors affect antibiotic prescribing



## Provider Factors

- Access to diagnostic and treatment best practices
- Prescribing habits
- Communication skills
- Beliefs about patient preferences
- Emotions and tolerance of uncertainty
- Decision fatigue
- Competing demands

## Patient Factors

- Health literacy and understanding of medical information
- Language or other barriers
- Previous experiences, perceptions and expectations with antibiotic treatment
- Trust in HCP recommendations
- Desire for active involvement in clinical decisions

## Healthcare System Factors

- Support of judicious antibiotic use
- Availability of clinical support tools
- Competing performance measures
- Practice culture
- Practice volume

# Prescribing habits



"Habits are hard to change. I will say that. So if someone's used to writing Zithromax… they're not going to stop because it's easy, patients want it, and they want the patients to go away and be happy. But I think pushing the knowledge is helpful, and change takes time."

Primary Care Provider

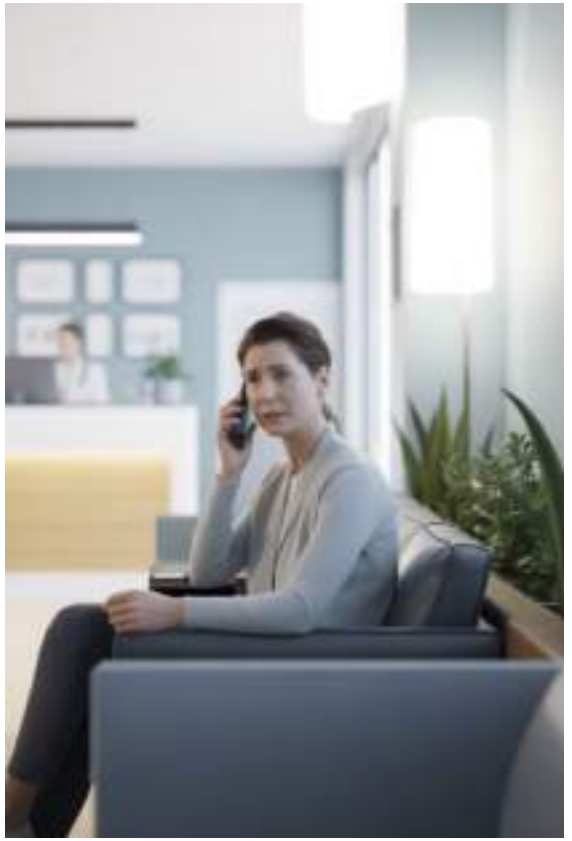


Sanchez et al. Emerg Infect Dis. 2014;20:2041-7

# Patient demand for antibiotics

## Patient demand as a barrier to judicious prescribing

"Sometimes you just don't have time to argue with a parent. You just don't. It can be a war zone. It is in the middle of the winter, and the kid is outside throwing up in the hall, and the mom says 'I need an antibiotic prescription.' Most of the time you can reason with her. You say 'look, we don't need to treat this.' And she says 'but my neighbor says this. I have an uncle who's a doctor and he said yes, I need it.' They come up with a million reasons why they need it. And you just don't have time."
Primary Care Pediatrician





Szymczak etal. Infect Control Hosp Epidemiol. 2014;35 Suppl 3:S69-78

# Patient satisfaction

## Patient satisfaction as a barrier to judicious prescribing

"We as doctors are business people. We're no different than running a shoe store. If somebody comes in and wants black shoes, you don't sell them white shoes. And if you do, they get upset. You can convince a patient, look if I were you I wouldn't take this antibiotic… but patients in general don't understand that concept of not taking it if you don't need it… [and] if you don't give it to them, they don't come back to you."
Primary Care Provider



Sanchez et al. Emerg Infect Dis. 2014;20:2041-7

# Clinician-patient relationship



- Evidence that clinicians may overestimate patient demand for antibiotics
- Clinicians may prescribe on basis of perceived rather than actual patient expectations
- Primary patient concern may be clarity about symptoms and how to relieve them

# Patient expectations and antibiotic prescribing



For acute respiratory infections of **viral** etiology:

- Clinicians are more likely to inappropriately prescribe and give a **bacterial** diagnosis if they **believe** a patient desires antibiotics.
- There is **poor agreement** between actual patient expectations vs. provider-perceived expectations around antibiotics.

Coenen et al. Br J Gen Pract. 2006;56(524):183-90;
Mangione-Smith et al. Pediatrics 1999;103(4): 711–718
Hamm et al. J Fam Pract 1999;43:56-62

# Patient satisfaction related to fulfilling communication

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Patient satisfaction more closely related to whether:

- Provider spent enough time **explaining** the illness
- Patient **understood** the treatment options
- Communication events were fulfilled

rather than whether the patient received an antibiotic

Gonzalez et al. Eff Clin Pract. 2001;4(3):105-11


Reductions in antibiotic prescribing for acute bronchitis not associated with lower patient satisfaction.

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Mangione-Smith et al. Pediatrics 1999;103(4): 711–718
Hamm et al. J Fam Pract 1999;43:56-62

# Factors that drive antibiotic prescribing
# Key Points

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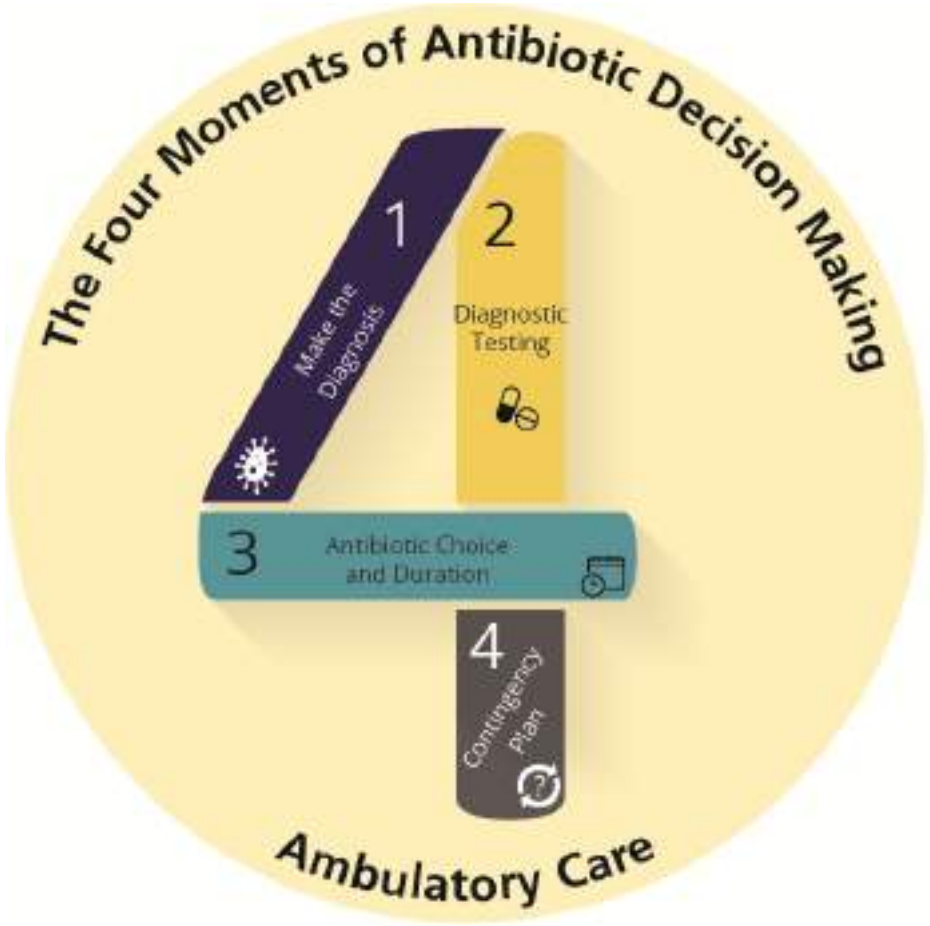
- Outpatient antibiotic overuse is not simply caused by lack of knowledge or lack of belief in guidelines; social, emotional, cultural, and environmental factors are at play
- The quality of provider-patient interaction has greater impact on patient satisfaction than the provider prescribing antibiotics
- For change to happen, strategies that are sociobehaviorally-informed should be utilized

# What Can We Do About It?

Identify effective strategies for optimal antibiotic prescribing for common outpatient infections

# The Four Moments of Antibiotic Decision Making






1. Does my patient have an infection that **requires antibiotics**?
2. Do I need to order any **diagnostic** tests?
3. If antibiotics are indicated, what is the **narrowest**, **safest**, and **shortest** regimen I can prescribe?
4. Does my patient understand what to **expect** and the **follow-up plan**?

# Organizational commitment




# Allina Health Commitment

Launched Nov 2024

- In Smartworks in 2 sizes and 4 languages
- Ongoing effort to display in waiting and exam rooms in primary care, urgent care, & EDs

# Commitment poster

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- Declares that the practice and individual healthcare providers are **dedicated to ensuring judicious antibiotic prescribing**

- **Displayed** in common clinical spaces and exam rooms as **visible pledge** to patients and staff members that the practice is committed to **safe and responsible antibiotic prescribing**

- Resulted in **20% reduction** in inappropriate antibiotic prescribing for acute respiratory infections relative to control primary clinic sites

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Meeker at al. JAMA Intern Med. 2014;174(3):425-431

# Public-facing patient education website

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Launched Nov 2024

Allina Health

# Patient education via Scala board digital signage


Launched Nov 2024

Year-round display in primary care clinics, urgent care centers, EDs, and hospital cafeterias and elevators

# Institutional clinical guidance

# Allina multidisciplinary clinical pathways for respiratory infections

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1. Adult acute bronchitis
2. Pediatric acute bronchitis
3. Pediatric acute bronchiolitis
4. Adult GAS pharyngitis
5. Pediatric GAS pharyngitis
6. Adult acute sinusitis
7. Pediatric acute sinusitis
8. Pediatric acute otitis media
9. Acute exacerbation of COPD (outpatient and inpatient)

Developed and approved Nov 2023 – Jan 2025

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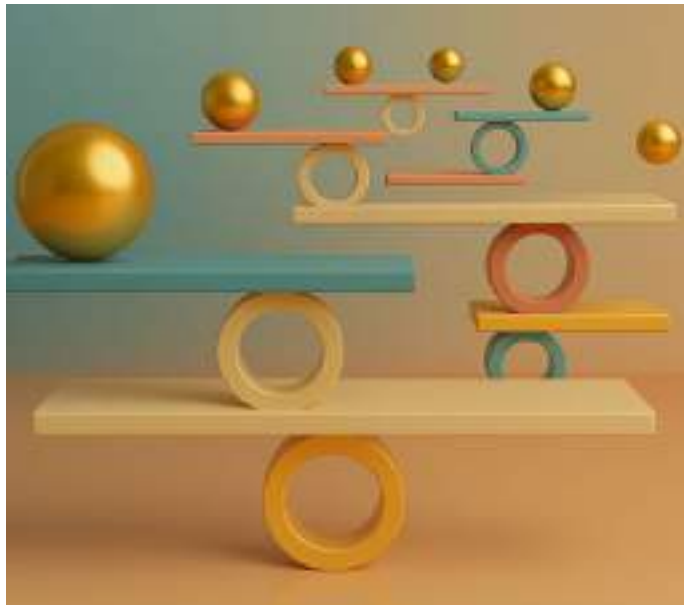
# Purpose of Allina clinical pathways



- Reduce unwarranted or unintended variation in practice
- Optimize **diagnosis** and **treatment**
- Improve efficiency of care

**by**

- Incorporating national recommendations, primary literature, and Allina multidisciplinary expertise
- Reconciling conflicting national recommendations



# Elements of Allina outpatient clinical pathways

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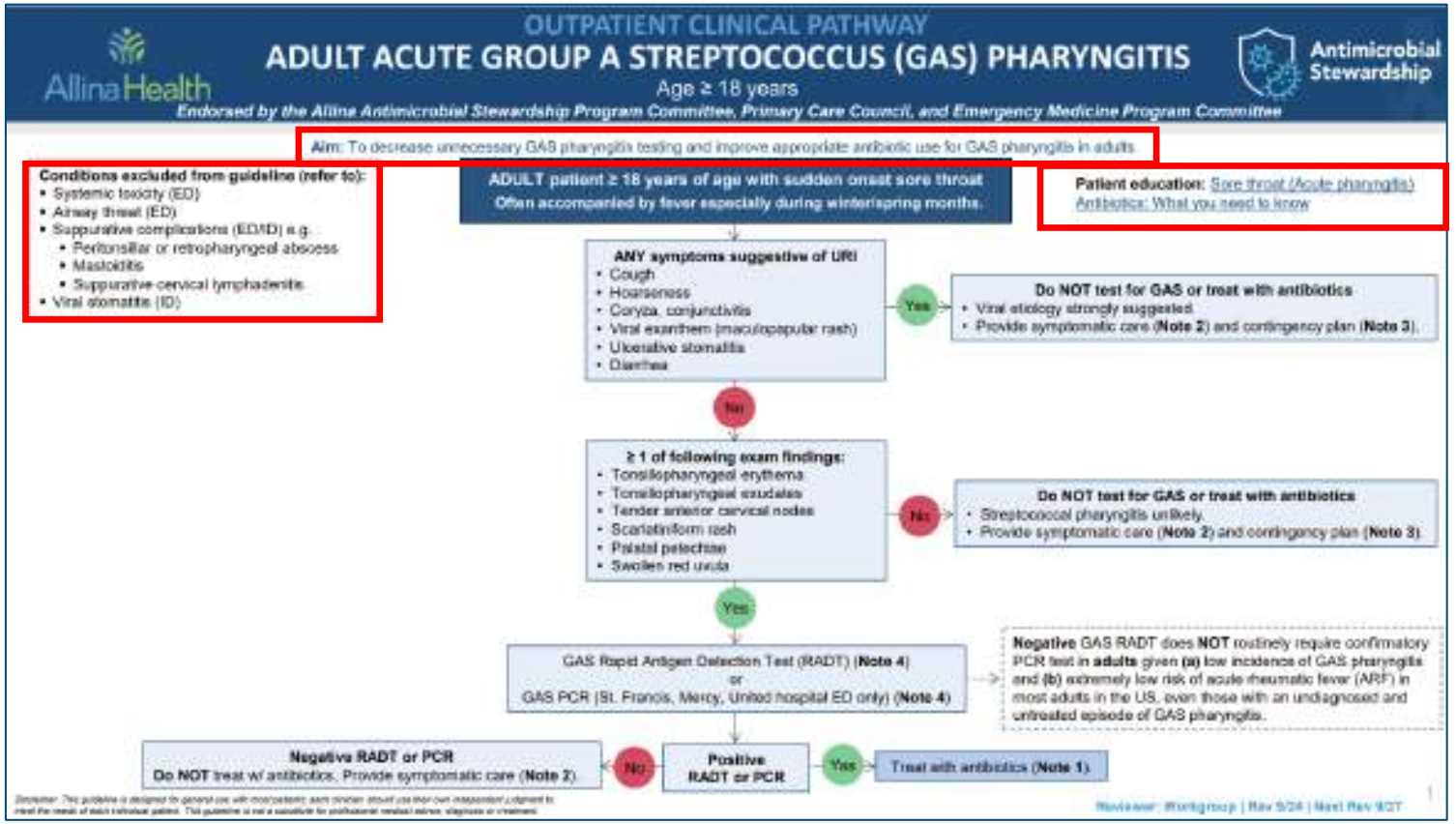
- One-page algorithm
- Aim
- Exclusions
- Links to Allina patient education
- Antibiotic recommendations
- Supportive care recommendations
- Communication strategies
- Contingency plan
- Synopsis
- References & Workgroup

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# Color coding of Allina outpatient clinical pathways by age

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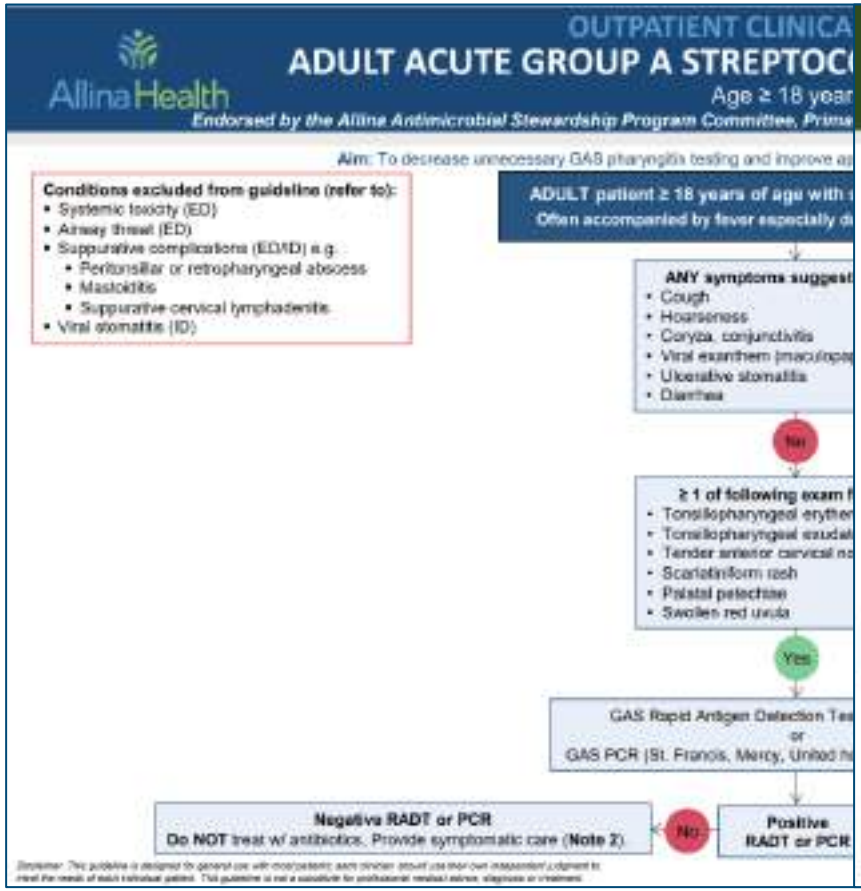
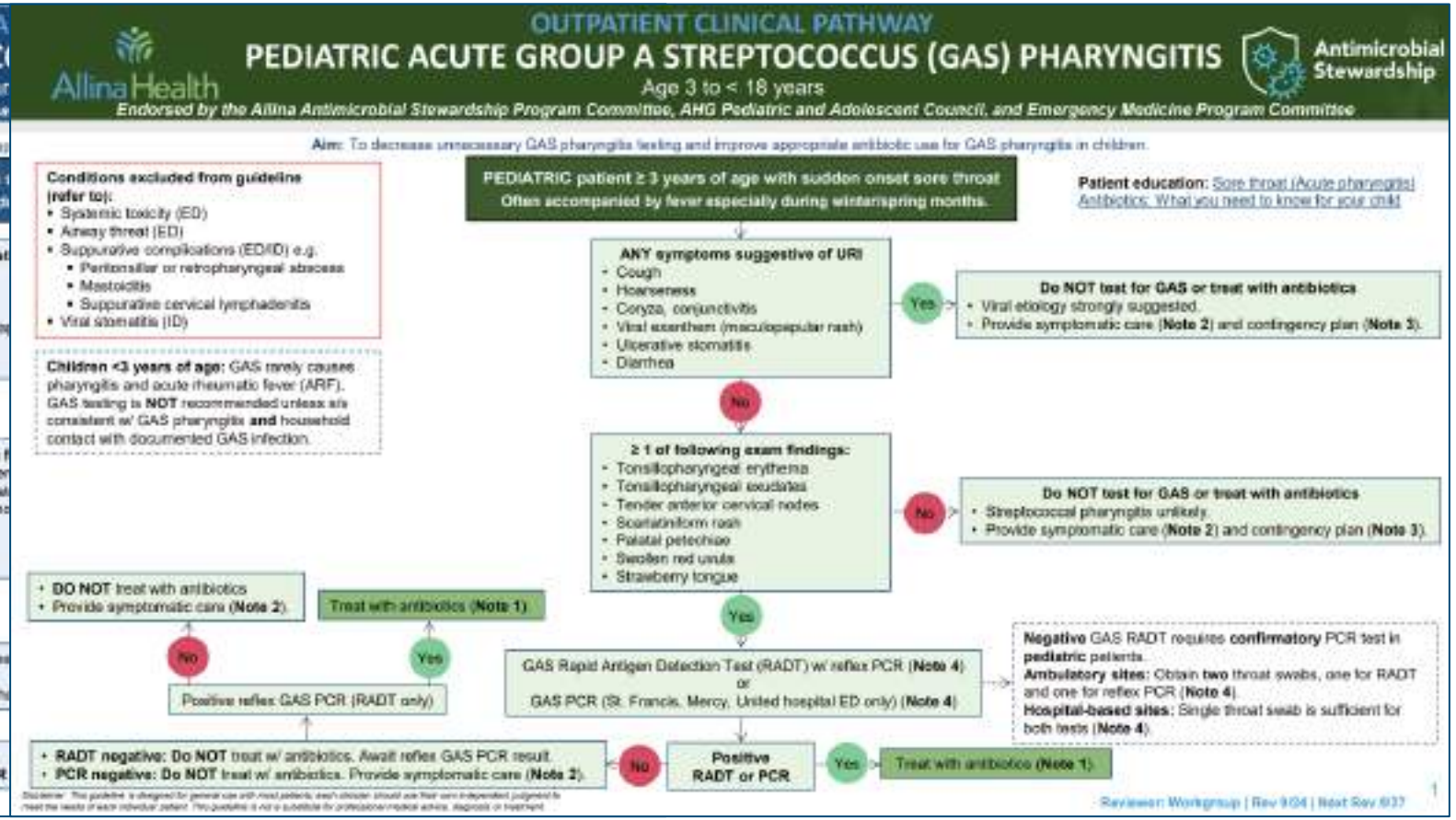
## BLUE for adult pathways

## GREEN for pediatric pathways



# Allina patient education linked to clinical pathways

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## Allina patient education aligns with pathway recommendations

EDUCATION

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### Acute Bronchitis (Children)

**What is Acute Bronchitis?**

Acute bronchitis is swelling (inflammation) of the main airways (bronchi) that come off the windpipe (trachea) in the lungs. The swelling causes the airways to get smaller and leads to coughing, and sometimes more mucus than normal. Acute bronchitis is also known as "chest cold".

Acute bronchitis is different from acute bronchiolitis. Acute bronchiolitis is most common in young children (< 2 years of age). Acute bronchitis is most common in older children.

**What are the Symptoms?**

Symptoms of acute bronchitis can include:

**Will Antibiotics Work?**

Acute bronchitis is caused usually by viruses and gets better on its own without antibiotics. Green or yellow color in sputum is produced by your child's body and is not a sign of bacterial infection.

- Antibiotics kill bacteria. Bacteria do not commonly cause acute bronchitis. If your child takes an antibiotic when they have a virus, the antibiotic won't help your child, and its side effects could still hurt your child.
  - — Antibiotics may give your child a skin rash, diarrhea, or a yeast infection.
  - — Antibiotics also make bacteria more

**How Can I Help My Child to Feel Better?**

Below are some ways you can help your child feel better at home while their body fights off acute bronchitis:

- Let your child have plenty of rest.
- Offer your child plenty of fluids.
- Do not allow smoking around your child and in the home your child lives.

**When Should I Seek Medical Care for Acute Bronchitis?**

- Contact your child's health care provider if:
  - — Symptoms last longer than 3 weeks.
  - — New symptoms appear (e.g. earache).
  - — A fever is present for more than 3 days.
  - — Your child is very tired or won't wake up to eat.
  - — Your child is having problems eating or drinking.
- Seek emergency care for your child if your child has any of the following:
  - — Breathing is much faster than normal

**What Over-the-Counter Medicines Can I Use?**

Over-the-counter medicines can help your child feel better. Always use over-the-counter medicines as directed.

For fever or discomfort:

- Children younger than 6 months: You may give acetaminophen (Tylenol®) but not ibuprofen (Advil®, Motrin®), unless your child's healthcare provider specifically tells you to do so.
- Children 6 months or older: You may give acetaminophen (Tylenol®) or ibuprofen (Advil®, Motrin®). Avoid ibuprofen or check with your child's healthcare provider first if your child has asthma, kidney, heart, or stomach problems, or is at high risk of

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# Excellian ambulatory order panels

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## Adult Bronchitis Guidelines

**Antibiotics are NOT recommended for acute uncomplicated bronchitis with or without asthma.**

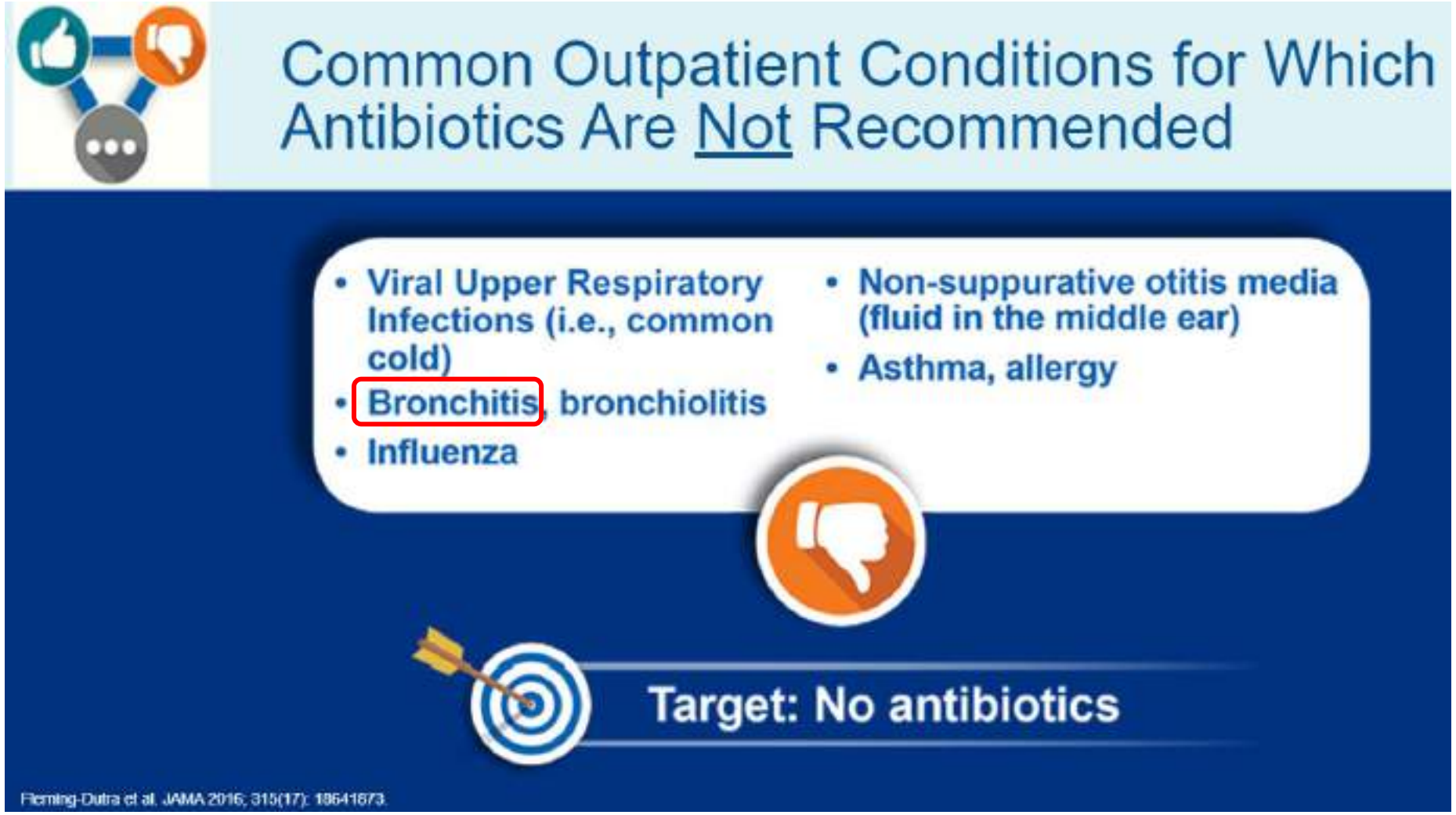
- Allina Adult Bronchitis Pathway Algorithm
- Allina Adult Bronchitis Patient Education

- ☐ First Line
- ☐ Treatment for patients with Heart Failure, Immune Compromise, Cystic Fibrosis, or Pregnant
- ☐ Adult COPD Exacerbation Abx Guidelines
- ☐ Optional Lab and Imaging Orders

## Peds Bronchitis Guidelines

- Allina Pediatic Bronchitis Outpatient Clinical Pathway
- Allina Pediatric Bronchitis Patient Education

- ☐ Supportive Medications
- ☐ Antibiotics
- ☐ Optional Lab and Imaging Orders




Fleming-Dutra et al. JAMA. 2016;315(17):1864-1873

# OUTPATIENT CLINICAL PATHWAY
# ADULT ACUTE BRONCHITIS
Age ≥ 18 years

*Endorsed by the Allina Antimicrobial Stewardship Program Committee, Allina Primary Care Council, and Emergency Medicine Program Committee*

**Aim:** To optimize management of acute bronchitis in adults. Allina Health overprescribes antibiotics for acute uncomplicated bronchitis in 60% of outpatient visits.

**Patient education:** Acute bronchitis
Antibiotics: What you need to know

**ADULT patient with suspected acute bronchitis**
- Cough with or without phlegm production typically lasting < 3 weeks.
- Often associated with a viral recent or current upper respiratory infection.
- Fever is not a typical finding after the first few days of illness.
- May be accompanied by wheezes and rhonchi that typically improve with coughing.
- **Purulent** sputum does **not** correlate with bacterial infection in people without chronic lung disease.

Paroxysmal cough, post-tussive vomiting, inspiratory whooping sounds and/or exposure to pertussis.

Yes → Evaluate for **pertussis** CDC guidance

**Early antibiotic** treatment of pertussis within **1 to 2 weeks** before coughing paroxysms occur is **most effective** for reducing symptom severity. Antibiotics will not alter the course of illness or prevent transmission if given later in the course of illness.

No → Evaluate for:

**Any risk factors for pneumonia:**
- Heart rate ≥100 beats/min.
- Respiratory rate ≥ 24 breaths/minute.
- Temperature ≥ 38°C (100.4°F).
- $SpO_2$ ≤ 94% **OR** ≥ 3% less than usual $SpO_2$ (if reduced baseline $SpO_2$ due to underlying heart/lung disease).
- Focal consolidation, egophony, rales, or fremitus on chest examination.
- Patient >75 years old with less evident signs of pneumonia (AMS, GI discomfort). Typical symptoms (fever, tachycardia) may be absent in this age group.

Yes → Obtain chest x-ray to evaluate for pneumonia.
- If **positive**: treat for pneumonia.
  Clinic: Use "Adult Pneumonia Abx Guidelines" order panel.
  ED: Use "ED SS ADULT Infectious Diseases" smartset.
- If **negative**, close follow up.

No →

**Acute uncomplicated bronchitis:**
- Antibiotics **NOT** recommended **(Table 1)**.
- Chest x-ray **NOT** recommended (**page 4**).
- Offer options for symptomatic relief (**Note 3)**.
- Provide contingency plan (**Note 4**).

**Any underlying risk factors for complications:**
- Chronic pulmonary disease (e.g., asthma, COPD, emphysema, bronchiectasis, CF).
- Immunodeficiency.
- Immune compromise.
- Congestive heart failure.

No →

Yes →
- If asthma, antibiotics **NOT** recommended.
- If COPD, evaluate for acute exacerbation (**Note 1**).
- If other underlying risk factors, evaluate risk vs. benefit of antibiotic treatment based on individual patient (**Note 2**).

# Adult acute bronchitis: Antibiotic recommendations

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## Acute uncomplicated bronchitis with or without asthma:

Antibiotics **NOT** recommended.→ Allina overprescribes. Goal in 2025 is < 30% prescribing rate.

## Acute bronchitis with underlying risk factors for complications

Benefit vs. risk of antibiotics is **unclear**

- Doxycycline × 5 days
- Amoxicillin × 5 days (pregnancy)

# Adult acute bronchitis: Pharmacologic supportive care

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**Pain, sore throat, fever, headache**
Acetaminophen, ibuprofen, menthol lozenges

**Cough**
Guaifenesin-dextromethorphan, guaifenesin

**Prescription medications**
Benzonatate capsules for cough
Albuterol inhaler for wheezing or history of asthma

**Not recommended**
**Oral or inhaled steroids**, mucolytics, codeine-containing cough suppressants

# Antibiotic Prescribing for Acute Uncomplicated Bronchitis by Practice Setting

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## Antibiotic Prescribing for Acute Uncomplicated Bronchitis

Patients ≥ 3 months of age with acute bronchitis diagnoses **without** risk factors for complications (chronic lung disease, immune compromise) or competing diagnoses for concomitant infection that may justify antibiotics.

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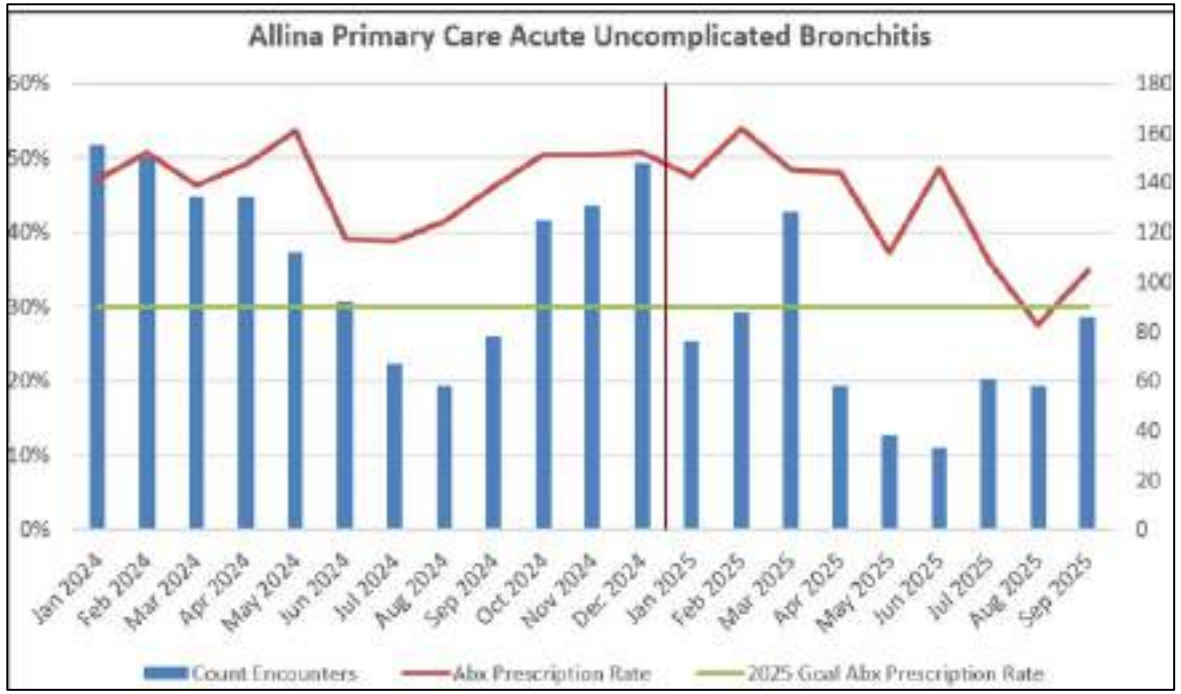


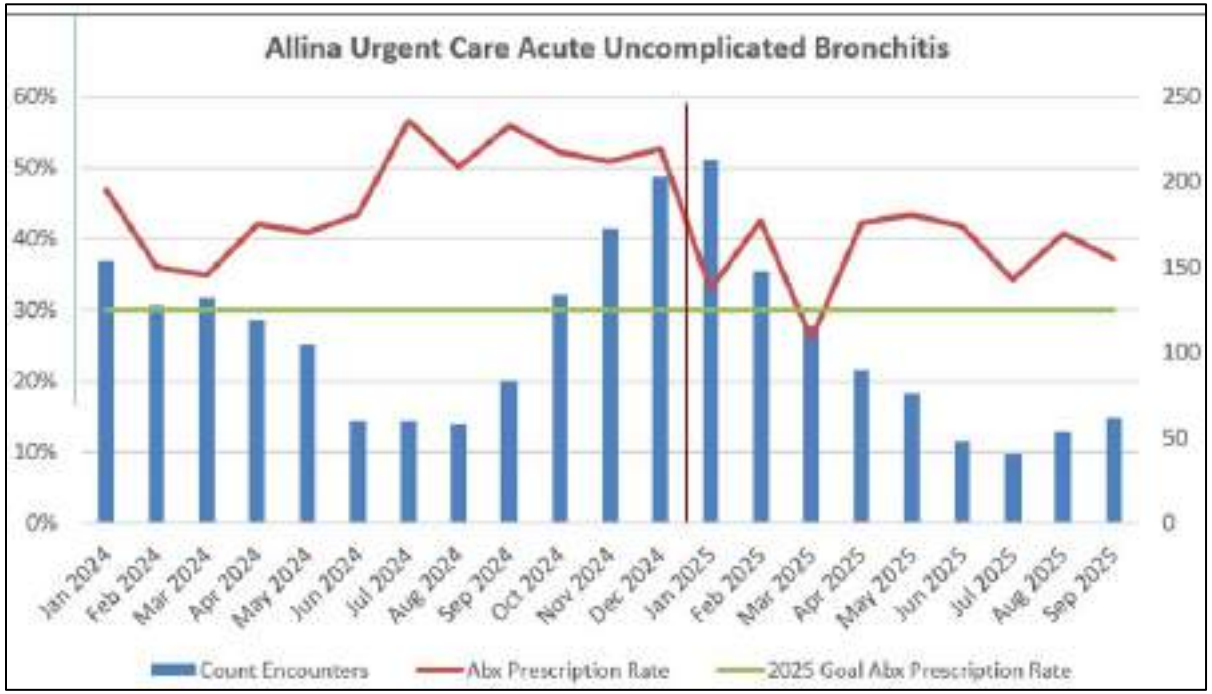


**Ideal goal:** 0% prescribing **Allina 2025 goal:** < 30% prescribing **Allina 2024 performance:** ~48% prescribing

# Antibiotic prescribing is associated with diagnosis coding

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High prescribers more likely to code a respiratory encounter as "sinusitis"

High prescribers also more likely to prescribe for sinusitis, pharyngitis, bronchitis

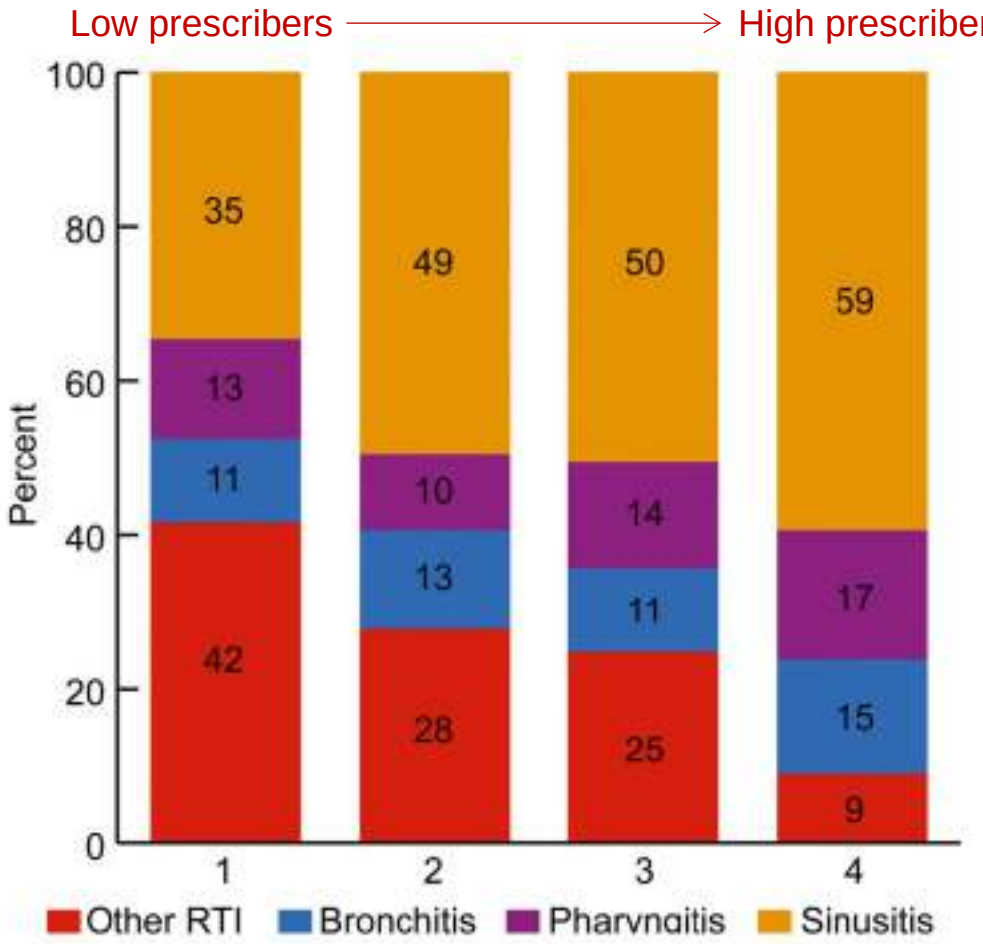


**Figure 1 Distribution of RTI diagnoses by physician antibiotic quartiles.**

Martinez et al. J Gen Intern Med 2019;34(6):806–8

# Our patient



- A 35-year-old otherwise healthy female presents with **7 days** of nasal congestion, purulent nasal discharge, facial pressure, and mild headache.
- She has no fever, severe pain, double worsening, or signs of complications.
- She feels miserable and hasn't had an infection like this before.
- Looking for immediate symptom relief.

# OUTPATIENT CLINICAL PATHWAY
# ADULT ACUTE RHINOSINUSITIS
Age ≥ 18 years

*Endorsed by the Allina Infectious Diseases Physician/Pharmacist Task Force, Primary Care Council, and Emergency Medicine Program Committee*

**Aim:** To standardize and optimize management of acute rhinosinusitis in adults.

**Patient education:** Acute sinusitis
Antibiotics: What you need to know
Understanding watchful waiting and delayed antibiotic prescriptions

**ADULT patient with suspected acute rhinosinusitis (ARS)**
≤ 4 weeks of purulent nasal drainage **AND** nasal obstruction or facial pain-pressure-fullness

**Evaluate for Acute BACTERIAL Rhinosinusitis (ABRS)**
**PERSISTENT:** Symptoms persist **>10 days and** not improving.
**WORSENING**: Symptoms worsen within 10 days **after** initial improvement (double worsening).
**SEVERE**: Temp ≥102.2 F (39°C) **and** purulent nasal discharge or facial pain for ≥3 consecutive days at beginning of illness.

Complications suspected (e.g. AMS, severe headache, periorbital edema)
- Yes → • Obtain CT if suspected orbital or intracranial involvement. • Refer to ENT and/or ID.
- No

**Evaluate for Acute VIRAL Rhinosinusitis (VRS)**
Symptoms present **≤10 days** with no worsening.
- Antibiotics **NOT** recommended.
- Offer supportive care options (**Note 2**).
- Provide contingency plan (**Note 3**).

**PERSISTENT** or **WORSENING ABRS**
Discuss supportive care (**Note 2**) & antibiotic approach (**Table 1**)
Watchful waiting (**Table 1**) **or** Prescribe antibiotic (**Note 1**)
Clinical improvement in 5-7 days after diagnosis & no worsening symptoms
- No → Prescribe antibiotic (**Note 1**)
- Yes → **Management complete**

Clinical improvement in 5-7 days & no worsening symptoms
- Yes → **Management complete**
- No → **Rule out** complications and alternative causes of illness. Consider obtaining CT and/or referral to ENT.
• If ABRS confirmed, **prescribe alternative antibiotic**.

**SEVERE ABRS**
Prescribe antibiotic (**Note 1**)
Discuss supportive care (**Note 2**)
Clinical improvement in 3-5 days and no worsening symptoms
- Yes → **Management complete**
- No → **Rule out** complications and alternative causes of illness. Consider obtaining CT and/or referral to ENT.
• If ABRS confirmed, **prescribe alternative antibiotic**.

Clinical improvement in 3-5 days with antibiotics
- Yes → **Management complete**
- No → **Refer to ENT and/or ID**

**Conditions excluded from guideline (refer to):**
- Systemic toxicity (ED)
- Subacute or chronic rhinosinusitis (symptom duration > 4 weeks) (ENT)
- Recurrent ARS (≥ 4 episodes per year) (ENT)
- Complications (e.g. orbital, intracranial) (ENT/ID)
- Anatomic abnormalities of sinuses (ENT)

Radiographic imaging is **NOT** recommended unless complications or alternative diagnoses are considered..

Nasal or nasopharyngeal cultures are **NOT** recommended due to poor correlation with maxillary sinus cultures.

Patients with ABRS and immune deficiency or suppression not improving with 1st line therapy would benefit from early ENT involvement.

# Adult & peds acute sinusitis: Diagnostic pearls



- Ninety to 98% of acute sinusitis due to infectious causes is **viral.**

- Suppurative complications of acute sinusitis (e.g. meningitis, orbital or intracranial abscess) are **rare**, and their incidence is **similar** among patients who receive antibiotics vs. those who receive placebo.

# Antibiotic indications for acute sinusitis



- Antibiotics indicated for acute BACTERIAL sinusitis:

**Persistent**

Symptoms >10 days without improvement

**Most common**

**Worsening**

Symptoms worsen within 10 days **after** initial improvement (double worsing)

**Severe**

Temp ≥102.2F **and** purulent nasal discharge or facial pain for ≥3 consecutive days at start of illness

# Adult bacterial sinusitis: Antibiotic recommendations

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## First line

- **Persistent** or **worsening**: Amoxicillin × 5 days

  Consider watchful waiting when patient can have reliable follow-up if symptoms do not improve 5-7 days after diagnosis **or** if they worsen at any time

- **Severe or** antibiotic use within prior 30 days **or** immune deficiency/suppression:

  Amoxicillin-clavulanate × 5 days

## Alternative

- Doxycycline 100 mg orally twice a day × 5 days

# Adult acute sinusitis: Pharmacologic supportive care

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**Pain, fever, headache:** Acetaminophen, ibuprofen

**Sinus pain or pressure, congestion**

- Corticosteroid, nasal: e.g. fluticasone, triamcinolone, budesonide
- Decongestant, nasal: Oxymetazoline for up to 3 consecutive days.
- Decongestant, oral: Pseudoephedrine

**Not recommended**

- Antihistamines (e.g., loratadine, diphenhydramine, nasal azelastine), **unless** significant allergic component. Antihistamines can worsen congestion by drying the nasal mucosa.
- Oral corticosteroids
- Guaifenesin

# Back to our patient



- A 35-year-old otherwise healthy female presents with **7 days** of nasal congestion, purulent nasal discharge, facial pressure, and mild headache.
- She has no fever, severe pain, double worsening, or signs of complications.
- She feels miserable and hasn't had an infection like this before.
- Looking for immediate symptom relief.

# Poll Question



Do you…

a) Prescribe amoxicillin
b) Prescribe amoxicillin-clavulanate
c) Prescribe azithromycin
d) Recommend supportive care

# Poll Question

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Do you…

a) Prescribe amoxicillin
b) Prescribe amoxicillin-clavulanate
c) Prescribe azithromycin
d) **Recommend supportive care**

# Effective communication

# Why effective communication is important



## Effective communication with patients and families

- Places the patient at the center of care
- Maintains patient and clinician satisfaction
- Addresses treatment expectations
- Prevents inappropriate antibiotic prescribing

# 4-Part Communication Strategy



1. **Review your physical exam findings with the patient**

   "*Your oxygen level and temperature are normal. Your lungs show no signs of pneumonia*."

2. **Deliver a clear diagnosis**

   "*You have acute bronchitis, also known as a chest cold. Chest colds are caused by viruses*."

# 4-Part Communication Strategy



3. **Use a 2-part negative/positive treatment recommendation**

- **Negative recommendation**: "*This is a chest cold, which antibiotics won't work against. Antibiotics, if used, may cause side effects, such as diarrhea.*"
- **Positive recommendation**: *"But honey can soothe your cough and help you feel and sleep better*."

# 4-Part Communication Strategy

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4. **Provide a contingency plan about expectations regarding symptoms and when to seek care**

*“Since you have bronchitis, you may continue to feel sick for the next 1–2 weeks. If your cough is not getting better after 3 weeks or if you develop a temperature ≥100.4F for more than 3 days call the office. If you are feeling really ill, please go to the ED.”*

# Suggested response to antibiotic appeals

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## Prior experience with clinicians

*"My doctor always gives me an antibiotic for a cough."*

## Suggested Response

"*While it is helpful to know how you've been treated for this in the past, I'm focused most intently on how you are feeling today. Also, there's a lot of newer evidence showing antibiotics have more side effects than we used to think. All physicians are being urged to use antibiotics only when they are more likely to help than hurt. I will give you a few other options to help you feel better*."

# Suggested response to antibiotic appeals

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## Prior experience with antibiotics

"*Antibiotics are the only thing that has ever helped this cough get better*."

## Suggested Response

"*You have a virus and antibiotics do not fight viruses. What you experienced in the past was the natural resolution of your illness. Your body has an amazing capacity to heal itself. Also, we want to avoid putting a chemical in your body that cannot help and could hurt you. Let's work on some other things that could help you feel better*."

# Messages to convey in response to antibiotic appeals

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- Convey that the **patient's well-being in the moment** is your primary concern and the motivation behind the recommendation

- **Recognize** the patient's suffering as real and **empathize** with the patient about the burdensome impact of their illness on daily life
  - Sit at eye level with the patient
  - Actively listen to the patient and acknowledge the concerns
  - Say: "*I am sorry you aren't sleeping well. It must be hard to get through your day.*"

# Messages to convey in response to antibiotic appeals

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- **Affirm** the patient's decision to seek medical attention to rule out more serious illness.
  - Say: "*I'm glad you came in to see me today so I could evaluate the symptoms you are experiencing to make sure it's not something serious*."

# More tips on effective communication strategies

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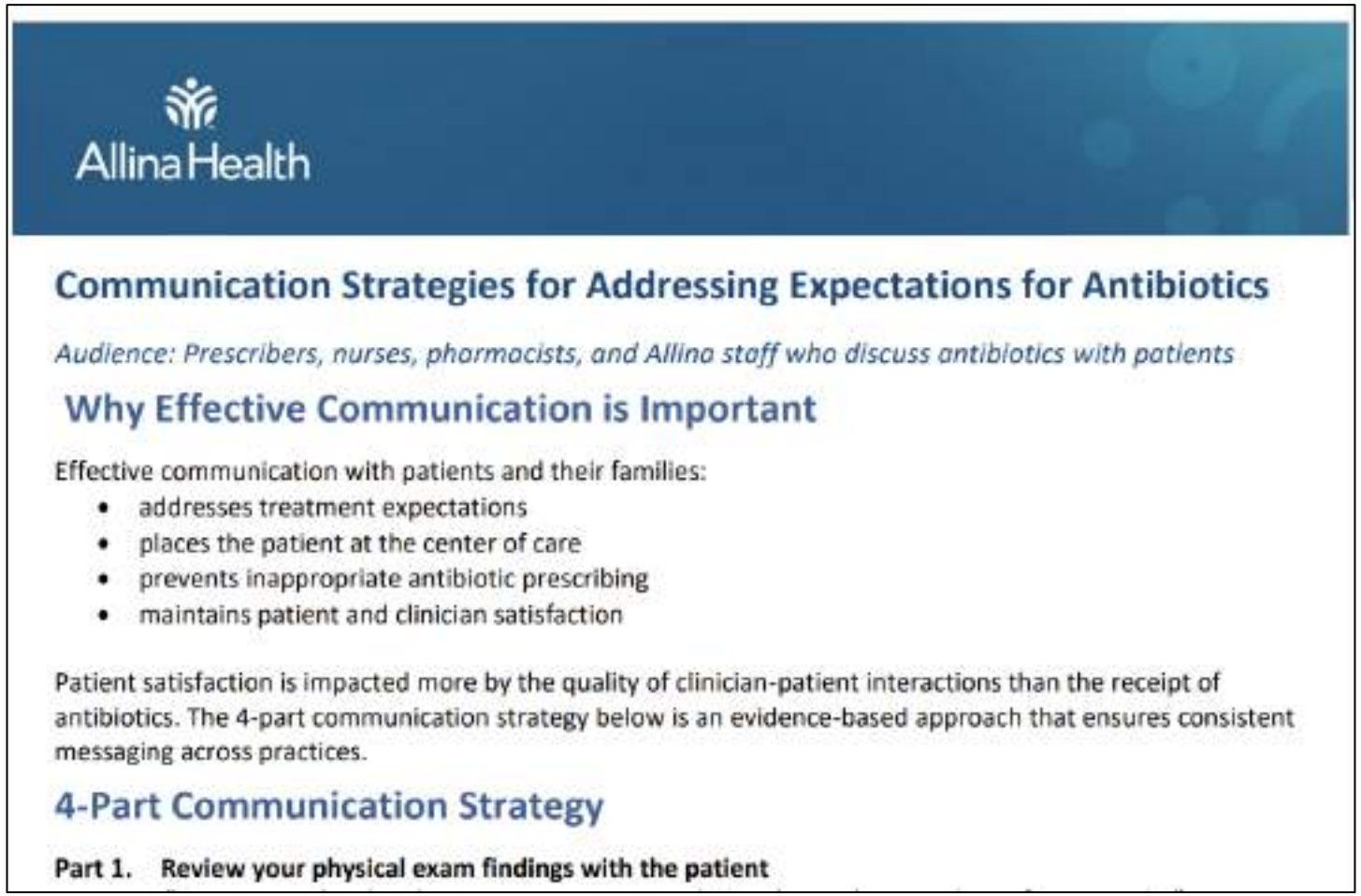

Allina Health

## Communication Strategies for Addressing Expectations for Antibiotics

*Audience: Prescribers, nurses, pharmacists, and Allina staff who discuss antibiotics with patients*

### Why Effective Communication is Important

Effective communication with patients and their families:

- addresses treatment expectations
- places the patient at the center of care
- prevents inappropriate antibiotic prescribing
- maintains patient and clinician satisfaction

Patient satisfaction is impacted more by the quality of clinician-patient interactions than the receipt of antibiotics. The 4-part communication strategy below is an evidence-based approach that ensures consistent messaging across practices.

### 4-Part Communication Strategy

**Part 1. Review your physical exam findings with the patient**

**On AKN by searching "Communication strategies"**
**Linked to Allina outpatient clinical pathways**



Communication Strategies for Addressing Expectations for Antibiotics.pdf

# Take Home Points



- Most antibiotic use occurs outpatient and 30% to 50% of it is unnecessary or inappropriate.
- Prescribing behavior is a complex decision-making process where clinical, social, emotional, cultural, and environmental factors are at play.
- Utilizing the Allina commitment, clinical decision support tools, and effective communication strategies are evidence-based strategies for optimizing outpatient antibiotic prescribing.

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Allina Primary Care Council
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Emily Herstine, PharmD

# Education and Resources

Antimicrobial Stewardship | SUMMIT

- Primary Care Grand Rounds “Clinical Pathways for Respiratory Infections” on LMS (1 CME) (exp 2/19/26)
- Allina Antimicrobial Stewardship Program Website

  https://akn.allinahealth.org/AASP/Pages/default.aspx

  Search for “antimicrobial” or “antibiotic” on AKN

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# Thank you