The New England QIN-QIO Outpatient Antibiotic Stewardship Collaborative Kickoff

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WELCOME
Objectives

• *Describe* at least three ramifications of the inappropriate use of antibiotics in the outpatient setting.

• *Describe* the CDC's four Core Elements of Antibiotic Stewardship in the outpatient setting.

• *Define* support available from the New England QIN-QIO for this project.
New England Quality Innovation Network - Quality Improvement Organization (NE QIN-QIO)

• Regional approach, six New England states
  – State based implementation

• Four Key Roles of the QIN-QIO
  – Facilitate Learning and Action Networks (LANs)
  – Teach and advise as technical experts
  – Champion local-level, results-oriented change
  – Communicate effectively
Outpatient Settings

• Who is participating?
  – Emergency Departments
  – Primary Care Clinics
  – Urgent Care Centers
  – Federally Qualified Health Centers
  – Physician Offices
  – Outpatient Pharmacies
Reducing Unnecessary Antibiotic Use

Improve Antibiotic Use to Combat Antibiotic Resistance

CDC is working to reduce unnecessary antibiotic use

White House National Action Plan to Combat Antibiotic-Resistant Bacteria (CARB)

Goal: By 2020, reduce inappropriate outpatient antibiotic use by 50%

Find out when antibiotics are necessary. Visit: http://www.cdc.gov/getsmart

Emergence of Antibiotic Resistance

How Antibiotic Resistance Happens

1. Lots of germs. A few are drug resistant.

2. Antibiotics kill bacteria causing the illness, as well as good bacteria protecting the body from infection.

3. The drug-resistant bacteria are now allowed to grow and take over.

4. Some bacteria give their drug-resistance to other bacteria, causing more problems.
Prescribing Rate for every 1000 Population in U.S - 2014 Data

Lowest – 502 AL
Highest -1285 WV

Sweden - 328

https://gis.cdc.gov/grasp/PSA/AUMapView.html
The Core Elements of Outpatient Antibiotic Stewardship

Commitment:
- Demonstrate dedication to and accountability for optimizing antibiotic prescribing and patient safety

Action for policy and practice:
- Implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed

Tracking and Reporting:
- Monitor antibiotic prescribing practices and offer regular feedback to clinicians or have clinicians assess their own antibiotic use

Education and Expertise:
- Provide educational resources to clinicians and patients on antibiotic prescribing and ensure access to needed expertise on antibiotic prescribing

Core Element Checklist

Checklist for Core Elements of Outpatient Antibiotic Stewardship

Outpatient clinicians and healthcare facilities can take steps to implement antibiotic stewardship activities. Use this checklist as a baseline assessment of policies and practices which are in place. Then use the checklist to review progress in expanding antibiotic stewardship activities on a regular basis (e.g., annually).

**Commitment**

1. Can your facility demonstrate dedication to and accountability for optimizing antibiotic prescribing and patient safety related to antibiotics? □ Yes □ No

   - Write and display public commitments in support of antibiotic stewardship.
   - Identify a single leader to direct antibiotic stewardship activities within a facility.
   - Include antibiotic stewardship-related duties in position descriptions or job evaluation criteria.
   - Communicate with all clinic staff to set patient expectations.

**Action**

2. Has your facility implemented at least one policy or practice to improve antibiotic prescribing? □ Yes □ No

   - Yes, indicate which initiatives are in place (Select all that apply):
     - Use evidence-based diagnostic criteria and treatment recommendations.
     - Use delayed prescribing practices or watchful waiting, when appropriate.
     - Provide communications skills training for clinicians.
     - Require explicit written justification in the medical record for non-recommended antibiotic prescribing.
     - Provide support for clinical decisions.
     - Use call centers, nurse hotlines, or pharmacist consultations as triage systems to prevent unnecessary visits.

**Tracking and Reporting**

3. Does your facility monitor at least one aspect of antibiotic prescribing? □ Yes □ No

   - Yes, indicate which of the following are being tracked (Select all that apply):
     - Self-evaluate antibiotic prescribing practices (this intervention only applies to solo practitioners or practices with fewer than 5 clinicians as long as clinicians participate).
     - Participate in continuing medical education and quality improvement activities to track and improve antibiotic prescribing (this intervention only applies if all clinicians in the practice participate in the activity).
     - Track and report antibiotic prescribing for one or more high priority conditions.
     - Track and report the percentage of all visits leading to antibiotic prescriptions.
     - (If already tracking and reporting one of the above) Track and report, at the level of a healthcare system, complications of antibiotic use and antibiotic resistance trends among common outpatient bacterial pathogens.
     - Assess and share performance on quality measures and establish reduction goals addressing appropriate antibiotic prescribing from healthcare plans and payers.

**Education and Expertise**

4. Does your facility provide resources to clinicians and patients on evidence-based antibiotic prescribing? □ Yes □ No

   - Yes, indicate how your facility provides antibiotic stewardship education to patients (Select all that apply):
     - Use effective communications strategies to educate patients about when antibiotics are and are not needed.
     - Provide patient education materials.

   - Yes, indicate how your facility provides antibiotic stewardship education to clinicians (Select all that apply):
     - Provide face-to-face educational training (academic detailing).
     - Provide continuing education activities for clinicians.
     - Ensure timely access to persons with expertise.
Resources:
The Outpatient Antibiotic Stewardship Guide - Implementation Roadmap
Your health is important to us. We promise to Provide the best possible treatment for your condition.

We will not give you antibiotics when they might do more harm than good. Antibiotics:

- fight infections caused by bacteria
- should only be used when needed
- can give you a skin rash, diarrhea, a yeast infection, or worse
- can do more harm than good when you have a virus

If an antibiotic is not needed, we will explain this to you and offer treatments that are better for you.

If you have any questions, please feel free to ask us.

Sincerely,
Charlotte Hungerford Hospital Multi-Specialty Group
Resources: Patient Education

Viruses or Bacteria
What's got you sick?

Antibiotics only treat bacterial infections. Viral illnesses cannot be treated with antibiotics. When an antibiotic is not prescribed, ask your healthcare professional for tips on how to relieve symptoms and feel better.

<table>
<thead>
<tr>
<th>Illness</th>
<th>Usual Cause</th>
<th>Antibiotic Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold/Ruiny Nose</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Bronchitis/Chest Cold</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>✔️</td>
<td>Yes</td>
</tr>
<tr>
<td>Flu</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Strep Throat (except strep)</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Sore Throat</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Fluid in the Middle Ear (otitis media with effusion)</td>
<td>✔️</td>
<td>NO</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>✔️</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Antibiotics Aren’t Always the Answer

www.cdc.gov/getsmart

6 Smart Facts About Antibiotic Use

1. Antibiotics are life-saving drugs.
2. Antibiotics only treat bacterial infections.
3. Some ear infections do not require an antibiotic.
4. Most sore throats do not require an antibiotic.
5. Green colored mucus is not a sign that an antibiotic is needed.
6. There are potential risks when taking any prescription drug.

Talk to your healthcare provider about when and how to safely use antibiotics.

Viruses or Bacteria: What’s got you sick?

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>Bacteria or Virus</th>
<th>Virus</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strep throat</td>
<td>• Sinus infection</td>
<td>• Common cold/ runny nose</td>
</tr>
<tr>
<td>• Whooping cough</td>
<td>• Middle ear Infection</td>
<td>• Sore throat (except strep)</td>
</tr>
<tr>
<td>• Urinary tract infection</td>
<td>• Bronchitis/chest cold (in otherwise healthy children and adults)</td>
<td>• Flu</td>
</tr>
</tbody>
</table>

**Antibiotics?**

- Yes
- Ask your doctor
- No
Resources:
Treatment Guidelines
Think Twice about Antibiotics for Acute Bacterial Sinusitis
Algorithm Showing the Interrelationship of Guideline Key Action Statements

Adult With Possible Sinusitis

Duration: ≤ 4 Weeks
- No: KAS 4a Table 6
  - Meets Criteria for ABRS?
    - Yes: KAS 2
      - Viral URI?
        - No: KAS 10
          - Complication Suspected?
            - Yes: KAS 11
              - Obtain Radiologic Imaging
                - Yes: KAS 4 Table 6
                  - Complication Present?
                    - Yes: KAS 12
                      - Manage Complication & ABRS
                    - No: KAS 3
                      - Recommend Symptomatic Relief for ABRS
            - No: KAS 12
              - Do Not Obtain Radiologic Imaging
                - Yes: KAS 5
                  - Offer Watchful Waiting* OR Prescribe Antibiotic Based On Shared Decision-Making
                    - Decision To Proceed With Watchful Waiting*
                      - Offer A Safety-Net OR Wait-and-See Antibiotic Prescription
                        - Treatment Failure??
                          - Yes: KAS 6
                            - Recurrent ABRS?
                              - Yes: KAS 3a Table 6
                                - Exclude Complications & Other Causes Of Illness. If Diagnosis Of ABRS Is Confirmed Prescribe An Alternate Antibiotic
                              - No: KAS 7
                                - Management Complete
                          - No: KAS 7
                            - Treatment Failure??
                              - Yes: KAS 6
                                - Recurrent ABRS?
                                  - Yes: KAS 3a Table 6
                                    - Exclude Complications & Other Causes Of Illness. If Diagnosis Of ABRS Is Confirmed Prescribe An Alternate Antibiotic
                                  - No: KAS 7
                                    - Management Complete
                          - No: KAS 7
                            - Management Complete
                    - No: KAS 5
                      - Prescribe Amoxicillin, With OR Without Clavulanate
                        - If patient allergy prescribes doxycycline or amoxicillin derivatives
                      - KAS 9

Duration: > 4 Weeks & < 12 Weeks
- Yes: "Subacute" Sinusitis Excluded From Guidelines
  - KAS 7a Table 7
    - Signs & Symptoms Of CRS?
      - Yes: KAS 11
        - Documented Inflammation?
          - Yes: KAS 13
            - Recommended Saline Nasal Irrigation &/OR Topical Intranasal Corticosteroids
              - Do Not Prescribe Topical OR Systemic Antifungal Therapy
          - No: KAS 13
            - Option Of Testing For Allergy & Immune Function
              - Medical OR Surgical Management As Appropriate
      - No: KAS 11
        - Confirm The Presence OR Absence Of Nasal Polyps
    - Not CRS
      - KAS 10
      - Recommened Saline Nasal Irrigation &/OR Topical Intranasal Corticosteroids
      - Do Not Prescribe Topical OR Systemic Antifungal Therapy

Duration: ≥ 12 Weeks
- No: KAS 7a Table 7
  - Signs & Symptoms Of CRS?
    - Yes: KAS 11
      - Documented Inflammation?
        - Yes: KAS 13
          - Recommended Saline Nasal Irrigation &/OR Topical Intranasal Corticosteroids
            - Do Not Prescribe Topical OR Systemic Antifungal Therapy
        - No: KAS 13
          - Option Of Testing For Allergy & Immune Function
            - Medical OR Surgical Management As Appropriate
    - Not CRS
      - KAS 10
      - Recommened Saline Nasal Irrigation &/OR Topical Intranasal Corticosteroids
      - Do Not Prescribe Topical OR Systemic Antifungal Therapy

Additional Resources:
- Table 4: Acute Rhinosinusitis Definitions: www.entnet.org/ABRS-definitions
- Table 6: Patient Information Sheet on Treating Acute Bacterial Rhinosinusitis: www.entnet.org/patient-information-ABRS

For more information and additional resources visit: www.entnet.org/adultsinusitisCPG

American Academy of Otolaryngology—Head and Neck Surgery
Foundation
Resources: Literature Reviews

• **Research**: Types of interventions linked to Core Elements
• **Research**: Based upon type of facility (e.g. Urgent Care Centers; Primary Care Practice)
• **Research**: Economic Burden of Antibiotic Treatment
Welcome to the Antibiotic Stewardship Newsletter

This newsletter is an effort from the New England Antibiotic Stewardship team to further engage practices working out the outpatient collaborative. We will provide information on upcoming webinars and presentations as well as include links to various resources and documents to assist your practice in successful antibiotic stewardship work! We will also include news updates from the WHO, CDC, and the QIN-QIO.

Succeeding with the Collaborative

1. **Review the Antibiotic Stewardship Project Guide**
   - Review Core Elements and steps with champions and other staff
   - Reach out to QIN for assistance

2. **Inform Staff of Collaborative and Intent**
   - Send out email to all staff about the collaborative and why it is important to the practice [link to CP implementation guide]

3. **Obtain All Appropriate Materials**
   - Review the resource toolkit [link on second page]
   - Obtain Commitment poster and discuss with staff best places to put it
     - Waiting rooms
     - Exam rooms

### National News

CDC Invests More than $200 million to help states respond to infectious disease threats. Read more via the link below:
https://www.cdc.gov/drugresistance/resources/news-media.html

The CDC released an updated document *Antibiotic Use in the United States: Progress and Opportunities*.

An article from the British Medical Journal suggests that shortened antibiotic courses do not contribute to antibiotic resistance. Read more [here](https://www.bmj.com/content/366/bmj.l4676).
Resources:
QIN-QIO Website
www.healthcarefornewengland.org
QPP Program Links: Getting Maximum Impact from Your Participation

Support across New England

• Get direct access to a QPP Advisor: 877-273-0129
• Ask us a question!
• Review the QPP 101 Handout to learn more about us!

Centers for Medicare & Medicaid Services (CMS)

Quality Payment Program Support:
• Website: gpp.cms.gov
• Call: 1-866-288-8292
• Email: gpp@cms.hhs.gov

http://neqpp.org/
Site Visits/Consultation

- Develop your Roadmap
- Plan your interventions
- Analyze your data
- Plan your facility workflow
- Review QPP measures for your site

• Examples
What’s happening in YOUR state?

There is a Multidisciplinary Advisory Group in each State

• Ask your QIN-QIO Antibiotic Stewardship Lead
Keys to Success

- Know your Antibiotic Stewardship Task Lead - put on speed dial
- Talk to your staff – often
- Engage your patients
- Make a plan
- Implement an intervention
- Monitor then adjust if needed
- Repeat!!!!
A Coordinated Response is More Effective than Independent Efforts

Partners in Prevention:
State partners can provide opportunities to extend efforts across the continuum of care

Figure from CDC Vitals Signs: http://www.cdc.gov/vitalsigns/stop-spread/index.html
Slayton et al. MMWR 2015; 64(30): 826-831.
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