Outpatient Antibiotic Stewardship
Call to Action
Objectives

- Review importance of antibiotic stewardship in outpatient settings
- Identify four core elements of antibiotic stewardship across various outpatient settings
- Discuss evidence-based strategies to implement the core elements
Meet Our Team

Kansas
Nadyne Hagmeier, RN

Nebraska
Jackie Trojan, RN, BSN, CPHQ

South Dakota
Cheri Fast, RN, BSN, WOCN

North Dakota
Jean Roland, RN, BSN, CPHQ

North Dakota
Jayme Steig, PharmD, RPh
Community Antibiotic Prescriptions per 1,000 Population by State — 2014

At least 30% of antibiotics prescribed in doctors’ offices, emergency departments and hospital clinics are unnecessary.*

Data source: IMS Health Xponent 2014.
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

Our Speaker

Stephan Schroeder, MD
Medical Director, Great Plains Quality Innovation Network
What is Antibiotic Stewardship?

- Antibiotic stewardship is the effort to:
  - Measure antibiotic prescribing
  - Improve antibiotic prescribing so that antibiotics are only prescribed and used when needed
  - Minimize misdiagnoses or delayed diagnoses leading to underuse of antibiotics
  - Ensure that the right drug, dose, and duration are selected when an antibiotic is needed

It’s about patient safety and delivering high-quality healthcare.
Why the Outpatient Setting?

- High levels of antibiotic use
  - Majority of human antibiotic use occurs in outpatients
  - 30% of outpatient antibiotic prescriptions are unnecessary
    - 50% of antibiotics for acute respiratory conditions are unnecessary
- It’s a matter of patient safety
  - Side effects from antibiotics lead to an estimated 143,000 emergency department visits per year
  - Antibiotic treatment is the most important risk factor for *Clostridium difficile* infection
- Inappropriate antibiotic use is primary modifiable driver of antibiotic resistance

Fleming-Dutra KE et al. JAMA 2016;315:1864–73
# Initial Steps

Identify one or more high-priority conditions for intervention.

High-priority conditions are conditions for which clinicians commonly deviate from best practices for antibiotic prescribing and include conditions for which antibiotics are overprescribed, underprescribed, or misprescribed with the wrong antibiotic agent, dose, or duration.

<table>
<thead>
<tr>
<th>Condition Category</th>
<th>Example(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics are overprescribed</td>
<td>Acute uncomplicated bronchitis</td>
</tr>
<tr>
<td>Over-diagnosed</td>
<td>Group A Streptococcal pharyngitis</td>
</tr>
<tr>
<td>Wrong dose, duration or agent</td>
<td>Azithromycin for sinusitis</td>
</tr>
<tr>
<td>Watchful waiting or delayed prescribing is underused</td>
<td>Acute otitis media in children</td>
</tr>
<tr>
<td>Antibiotics are underused</td>
<td>Sepsis or sexually transmitted infections</td>
</tr>
</tbody>
</table>
Diagnoses Leading to Antibiotics — United States, 2010–11

- Sinusitis, 11%
- Suppurative otitis media, 9%
- Pharyngitis, 9%
- Skin infections, 8%
- Urinary tract infections, 7%
- Viral URI, 5%
- Bronchitis, 5%
- Pneumonia, 2%
- Remaining diagnoses, 44%

Diagnoses leading to antibiotics among older adults aged ≥65 years — United States, 2010–11

Urinary tract infections, 10%
Sinusitis, 7%
Skin & soft tissue infections, 6%
Viral URI, [VALUE]
Bronchitis, 5%
Gastrointestinal infections, 2%
Pneumonia, 2%
Remaining diagnoses, 63%

Initial Steps

Identify barriers that lead to deviation from best practices.
These might include clinician knowledge gaps about best practices and clinical practice guidelines, clinician perception of patient expectations for antibiotics, perceived pressure to see patients quickly, or clinician concerns about decreased patient satisfaction with clinical visits when antibiotics are not prescribed.

Establish standards for antibiotic prescribing.
This might include implementation of national clinical practice guidelines and, if applicable, developing facility- or system-specific clinical practice guidelines to establish clear expectations for appropriate antibiotic prescribing.
Antibiotic Resistance: A Serious National and Global Health Problem

The discovery of antibiotics in the early 20th century fundamentally transformed human and veterinary medicine. Antibiotics now save millions of lives each year in the United States and around the world. However, the rise of antibiotic-resistant bacterial strains represents a serious threat to public health and the economy. The CDC estimates that annually at least two million illnesses and 23,000 deaths are caused by antibiotic-resistant bacteria in the United States alone.¹
CDC Core Elements of Outpatient Antibiotic Stewardship – Video Series

- 5 videos ≈ 15 minutes in length
- Introduction to the CDC Core Elements
- Video for each of the Core Elements
  - Commitment
  - Action for Policy & Practice
  - Tracking & Reporting
  - Education & Expertise

http://greatplainsqin.org/initiatives/antibiotic-stewardship/
Call to Action

Be recognized for the efforts you are already implementing.

- **Go to** [http://greatplainsqin.org/antibiotic-stewardship/](http://greatplainsqin.org/antibiotic-stewardship/) to join our 4 state initiative and sign the participation agreement!

- This is the time to be a good steward and protect your community from the ever advancing threat of antimicrobial resistance
Eligible Outpatient Facilities

- Emergency departments
- Federally Qualified Health Centers (FQHCs) or community centers
- Outpatient Clinics
- Outpatient Pharmacies
- Physician Offices
- Public Health Clinics
- Urgent Care Centers
Initiative Expectations

- Form an interdisciplinary team to incorporate at least one step for each element in the checklist for the CDC’s Core Elements of Outpatient Antibiotic Stewardship
- Agree to publicly disclose participation in initiative
- Identify team sponsor and day to day leader
- Participate in LAN events & other educational sessions
- Share results, best practices, and lessons learned
Contact Information

**Kansas**
Nadyne Hagmeier, RN
nadyne.hagmeier@area-a.hcqis.org
785-273-2552 x 374

**North Dakota**
Jean Roland, RN, BSN, CPHQ
jean.roland@area-a.hcqis.org
701-852-4231

**Nebraska**
Jackie Trojan, RN, BSN, CPHQ
jackie.trojan@area-a.hcqis.org
402-476-1399 x 531

**South Dakota**
Cheri Fast, RN, BSN, WOCN
cheri.fast@area-a.hcqis.org
605-354-2553

This material was prepared the Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. 11SOW-GPQIN-KS-C3.10-14/0717