Improving Antibiotic Use in Outpatient and Long-term Care Settings

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Prevention & Antibiotic Stewardship: Improving Antibiotic Use in Human Health—Outpatient and Long-term Care Settings

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How CDC and Public Health Protect the Patient: Improving Antibiotic Use

- Detect & Respond
- Improve Use
- Prevent Infections

- Patient Safety

- Measure antibiotic use
- Assess appropriate use
- Assess impact on outcomes
- Implement antibiotic stewardship programs
- Implement strategies to improve antibiotic stewardship practices
- Develop new interventions

Patient Safety

Detect & Respond

Improve Use

Prevent Infections
Where Do We Want to Be?

- Every patient gets optimal antibiotic treatment
  - Antibiotics only when they are needed
  - The right antibiotic
  - At the right dose
  - For the right duration

- Every healthcare facility implements antibiotic stewardship programs

- Every provider incorporates antibiotic stewardship practices
How CDC is Working to Improve U.S. Antibiotic Use

- Tackling antibiotic misuse and overuse in all healthcare settings
- Setting national prevention goals/targets and defining concrete measures
- Measuring antibiotic use to guide improvement and track progress
- Establishing standards and guidance for program implementation, e.g., Core Elements
- Pairing education with provider-level interventions
- Working with CMS and states to accelerate change through policy levers
- Developing innovative approaches to expand implementation and develop new interventions
- Working with diverse partners—federal, state, local, academic, healthcare, industry, consumers, policymakers—to implement what we know works
Community Antibiotic Prescribing Rates per 1000 Population — United States, 2014

Lowest state: 501 per 1000

Highest state: 1,285 per 1000

Data: IMS Health Xponent
http://www.cdc.gov/getsmart/community/programs-measurement/measuring-antibiotic-prescribing.html
Setting National Targets: Outpatient Antibiotic Prescribing

**Outpatient Antibiotic Prescribing Reduction Targets**

**Current Number of Antibiotic prescriptions in million**
- Acute respiratory conditions 67.6
- Other Conditions 86.6

**Recommended Number of Antibiotic prescriptions in million**
- Acute respiratory conditions 33.8 (minus 50%)
- Other Conditions 73.9 (minus 15%)

By 2020 significant outcomes of Goal 1 will include: *(CARB National Action Plan)*
- Establishment of antibiotics stewardship program in all acute care hospitals and improved Antibiotic stewardship across all healthcare settings.
- Reduction of inappropriate antibiotic use by 50% in outpatient settings and by 20% in inpatient settings

What We Know about U.S. Outpatient Antibiotic Use

- The U.S. uses lots of outpatient antibiotics compared to other countries
- There is a lot of geographic variability within the U.S.
- There is a lot of unnecessary use, especially for respiratory conditions, in doctors’ offices and emergency departments

What We Don’t Know and are Working to Address

- Where there are opportunities to improve antibiotic use in dental offices, retail clinics, and urgent care centers
What We Know about U.S. Nursing Home Antibiotic Use

- Up to 70% of residents receive an antibiotic each year
- Estimate 40-75% of antibiotic use is inappropriate or unnecessary
  - Lack national data

What We Don’t Know and are Working to Address

- What’s being used?
- For what indications?
- In what types of nursing home patients?

http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html
Assessing and Improving Antibiotic Use in Nursing Homes

- Point prevalence survey of antibiotic use pilot in nursing homes (9) completed
- CDC’s Emerging Infection Program sites are currently collecting data for an antibiotic use point prevalence survey
- Purchasing proprietary data
- Funding nursing home network to implement and evaluate Core Elements

http://www.cdc.gov/hai/eip/antibiotic-use.html
CDC’s Get Smart Campaign

- CDC launched the National Campaign for Appropriate Antibiotic Use in the Community in 1995
- Get Smart Campaign launched in 2003 with a focus on improving antibiotic use for respiratory infections in children and adults in doctors’ offices
- Now includes hospitals and long-term care facilities
- Additional focus on improving quality of healthcare and preventing adverse events (e.g., Clostridium difficile colitis)
- Get Smart About Antibiotics Week annual observance November 14-20

http://www.cdc.gov/getsnap/omunity/index.html
Moving Forward: Addressing the Gaps

- **Communication**: Expanding CDC’s public outreach campaign to improve antibiotic use with targeted messages based on data.
- **Data for Action**: Engaging retail and urgent care clinics and long-term care facilities with The Pew Charitable Trusts to determine best approaches to measure antibiotic use.
- **Implementation**: Expanding antibiotic stewardship to outpatient settings and nursing homes across the country with CMS-funded networks (QINs) and healthcare partners.
- **State-based Activities**: Expanding support for state and local public health to implement targeted antibiotic stewardship interventions across healthcare settings.
- **Partnerships**: Engaging nurses, pharmacists, dentists, and other healthcare providers in outpatient settings to implement antibiotic stewardship practices.
- **Policy**: Working with CMS and developing new Core Elements for antibiotic stewardship in outpatient settings.