

## Antibiotic Use in the Community Setting

Antibiotic-resistant bacteria cause more than **2 million illnesses** and at least **23,000 deaths each year** in the United States. Inappropriate prescribing of antibiotics contributes to antibiotic resistance and is a threat to patient safety.

- Each year, millions of antibiotics are prescribed unnecessarily for viral infections.
- Antibiotics can cause adverse drug events and promote antibiotic resistance.
  - *Clostridium difficile* infections are often the result of more antibiotic use.
  - Antibiotic use in primary care is associated with antibiotic resistance at the individual patient level.
- Antibiotics cause **1 in 5 emergency department visits** for adverse drug events and are the most common cause of emergency department visits for adverse drug events in children.
- Recently the American College of Physicians in collaboration with CDC highlighted high-value care advice for the appropriate use of antibiotics for acute respiratory tract infections in adults:
  - Clinicians should not perform testing or initiate antibiotic therapy in patients with bronchitis unless pneumonia is suspected.
  - Clinicians should test patients with symptoms suggestive of group A streptococcal pharyngitis (for example, persistent fevers, anterior cervical adenitis, and tonsillopharyngeal exudates or other appropriate combination of symptoms) by rapid antigen detection test and/or culture for group A Streptococcus. Clinicians should treat patients with antibiotics only if they have confirmed streptococcal pharyngitis.
  - Clinicians should reserve antibiotic treatment for acute rhinosinusitis for patients with persistent symptoms for more than 10 days, onset of severe symptoms or signs of high fever (>39 °C) and purulent nasal discharge or facial pain lasting for at least 3 consecutive days, or onset of worsening symptoms following a typical viral illness that lasted 5 days that was initially improving (double sickening).
  - Clinicians should not prescribe antibiotics for patients with the common cold.
- However, it is unclear how these high-value care advices are disseminated and monitored.
- The Choosing Wisely Campaign has also highlighted antibiotic use in many of their recommendations from various societies including:
  - American Academy of Family Physicians: Don't routinely prescribe antibiotics for mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement.
  - Infectious Diseases Society of America: Avoid prescribing antibiotics for upper respiratory infections.
  - American Academy of Dermatology: Don't routinely use topical antibiotics on a surgical wound.
  - American Academy of Ophthalmology: Don't order antibiotics for adenoviral conjunctivitis (pink eye).
  - American Academy of Otolaryngology – Head & Neck Surgery Foundation: Don't prescribe oral antibiotics for uncomplicated acute external otitis.

### Did you know?

- **3 out of 10** children who visit an outpatient provider with the common cold receive an antibiotic -- even though antibiotics are not indicated for a common cold.
- It is estimated that more than **50%** of antibiotics are unnecessarily prescribed in office settings for upper respiratory infections (e.g., cough and cold illness), of which most are caused by viruses.

This workgroup will emphasize both best practices and solutions to challenges in implementing outpatient antibiotic stewardship programs throughout the United States. This will include sharing information and tools for facilities to tailor outpatient stewardship to their own needs and resources.

## Community Antibiotic Prescribing Rates by State (2013/2014)\*

50% of all antibiotics prescribed in U.S. health provider offices are either unnecessary or inappropriate

