**Improving Inpatient Antibiotic Use**

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.

- Antibiotic resistance adversely impacts the health of millions of hospitalized patients every year.
- Some infections in hospitals are now resistant to all available antibiotics.

Overuse of antibiotics creates an unnecessary risk for adverse drug events and acquisition of resistant superinfections such as *Clostridium difficile* infection. According to CDC, if prescriptions of high-risk antibiotics in hospitals are reduced by 30%, it could lead to 26% fewer cases of deadly diarrheal infections.

Approximately **40% of the patients receiving antibiotics** receive unnecessary or inappropriate therapy. To help hospitals, CDC released practical tools that include seven key elements, a self-assessment checklist, and an in-depth implementation document. However, it is unclear whether hospitals have been able to meet the key elements and identify challenges in implementation.

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

Key moments for improving the cycle of antibiotic prescribing practices

1. While in the hospital for surgery, George develops a fever and feels pain when he urinates.

2. The doctor thinks George has a urinary tract infection (UTI). Following the hospital's UTI guideline, the doctor orders urine cultures to see if George has bacteria in his urinary tract (bladder, kidneys).

3. At the same time, the doctor prescribes antibiotics and includes the dose, duration, and indication in the patient record.

4. In keeping with the antibiotic stewardship policy, the doctor reassesses the prescription 2 days later. Based on test results and patient exam, she puts George on a better antibiotic for a shorter time.

5. The doctor's clear notes showing dose, duration, and indication give other doctors and nurses information they need to provide George with the best medical care.

SOURCE: CDC Vital Signs, 2014