Antimicrobial-resistant organisms can spread due to lack of effective processes, tools, and communication

With effective coordination, patients and the healthcare institutions are protected and costs are reduced

**AMR bacteria**
- 17% of central-line-associated bloodstream infections
- 14% of surgical-site infections
- 10% of catheter-associated urinary tract infections
- CREs\(^\dagger\) occur in approximately 1/5 of US long-term acute care hospital patients\(^\ddagger\)

**Diagnostic Testing**
- An estimated 30% of antibiotics prescribed in the United States are unnecessary\(^\ddagger\)
- Most upper respiratory tract infections are viral; yet, 50% of patients with such infections unnecessarily receive antibiotics\(^\ddagger\)

**Prevent AMR by reducing the spread of pathogens through\(^\dagger\)**
- 1 Comprehensive protocols for patient isolation
- 2 Cleaning and disinfection
- 3 Optimal selection of medical devices

**Effectively, timely, accurate diagnostic tests can**
- Identify infection-causing organism
- Determine antimicrobial resistance
- Guide best therapeutic choice

**Surveillance & Reporting**
- Coordinated collection, assimilation, and analysis of data are necessary to track high-priority outbreaks
- Provide early warning of infection outbreaks
- Drive decision-making

**To combat AMR**
- Integrated vascular access
- Accurate patient screening
- Rapid detection and identification
- Precise susceptibility testing
- Surveillance and outbreak detection
- Measurement of antimicrobial use & resistance
- Optimized therapy selection and monitoring

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\(\dagger\)CRE, carbapenem-resistant Gram-negative bacteria with high levels of resistance to antibiotics.

\(\ddagger\)Low-impact modeling scenario assuming effects of AMR on labor supply and livestock productivity.