Change Pathway: Antibiotic Stewardship

COVID-19's Impact on Antibiotic Stewardship

It is apparent that the use of antibiotics has had a huge impact on treatment outcomes across the healthcare landscape. However, as the number of antibiotic-resistant organism increases, appropriate use of antibiotics has taken center stage.

Appropriate antibiotic prescribing has been further emphasized by the COVID-19 pandemic. During the initial phases of COVID-19 treatment, antibiotic use increased as providers were faced with increased community acquired respiratory conditions. At first, COVID-19 was especially difficult to discern from other respiratory infections.
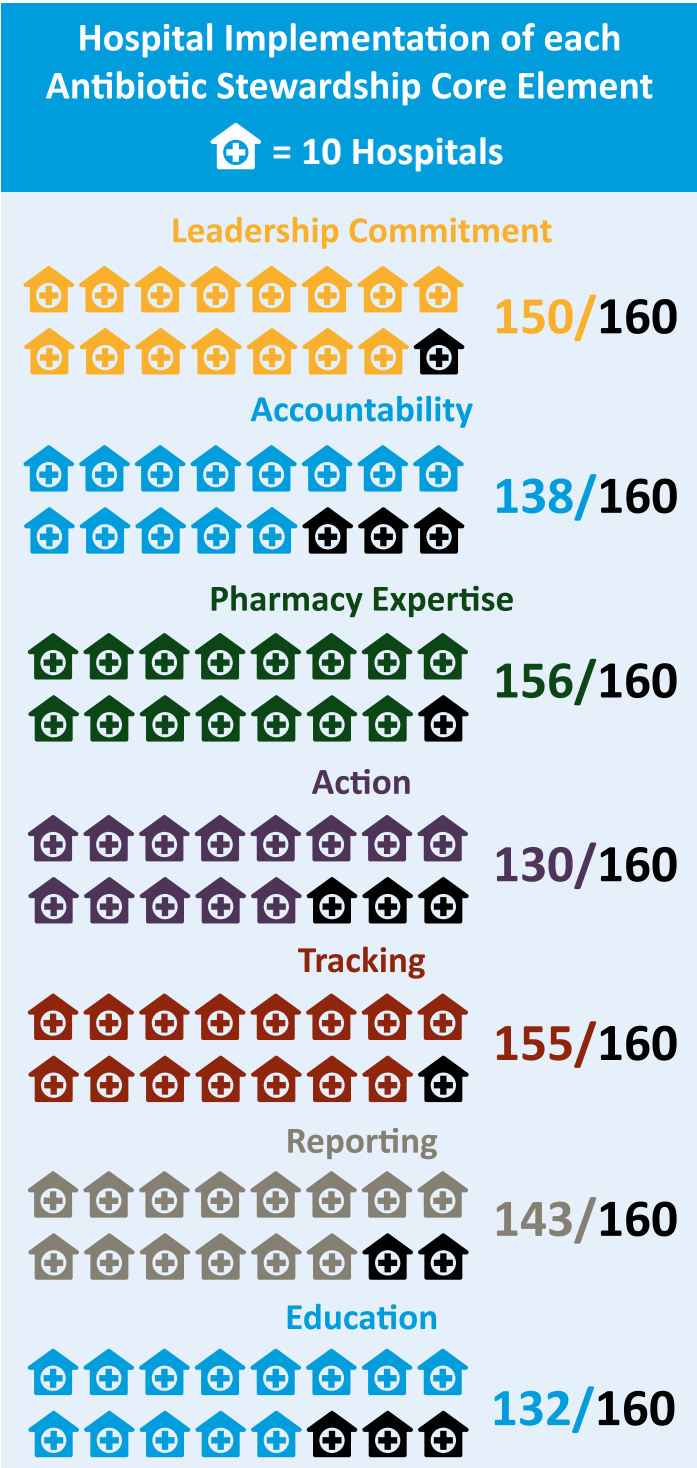
Recent studies suggest that secondary bacterial infections appear to be uncommon in patients with COVID-19, however, COVID-19 diagnosis is associated with a longer hospital stay, thus increasing the risk of spread of antimicrobial resistant organisms.

The immense impact of the COVID-19 pandemic has underscored the importance of infection prevention and antibiotic stewardship in protecting patients from antibiotic-resistant infections.

Resources & Tools for you

- Medicare Conditions of Participation (CoP): §485.640 - Awaiting release of CMS Interpretive Guidelines
- Core Elements for Small and CAHs
- Suggested Strategies from High Performing CAHs (Updated April 2020)
- 2021 Antibiotic Awareness Week
- Reducing the use of empiric antibiotic therapy in COVID-19 hospital admission
- Implementation Tools & Resources - Society for Healthcare Epidemiology of America

Hospital Implementation of each Antibiotic Stewardship Core Element

🏥 = 10 Hospitals

Leadership Commitment
150/160

Accountability
138/160

Pharmacy Expertise
156/160

Action
130/160

Tracking
155/160

Reporting
143/160

Education
132/160

Step-by-Step Path to Quality Improvement

STEP 1

Define the problem & analyze causes

STEP 2

Build your team

STEP 3

Select a promising practice (intervention) for implementation

STEP 6

Implement intervention

STEP 5

Develop an action plan

STEP 4

Establish a measurement strategy

STEP 7

Analyze results

STEP 8

Adapt, adopt, or abandon

STEP 9

Reflect, share, and spread

Hospital: _____

Team Leader: _____ **Team members:** _____ **Executive Sponsor**: _____

Quality Improvement Change Pathway Focus Topic: _____

Instructions: This checklist serves as a guide for implementation of a selected quality improvement project. The change pathway is just one suggested method for achieving program goals, additional actions may be required.

PLAN

- **Define the problem & analyze causes (Note: Quality Lead needs to complete the following 3 steps <u>before</u> starting the project)**
  - Review relevant data. Login to CDS and click on "Reports" to view outcome measure trends.
  - Review topic-specific self-assessment responses.
  - Review Medicare conditions of participation (CoPs) if applicable and core resources (pg. 1).
  - Assess the current state by completing a gap assessment or current state map.
  - Write out a problem statement that captures insights gained from data review.
  - Imagine the future state. Ask yourself, *what are we trying to accomplish?*
  - Perform a root cause analysis (RCA) of the problem. Select a template: 5 why's, fishbone diagram.
  - Consider barriers to improvement: patient population disparities, geographical barriers, staffing, and infrastructure challenges.
- **Build your team**
  - Identify key stakeholders and subject matter experts. Ask yourself, *who has a stake in the results of this project?* Ex. Pharmacists, nurses, etc.
  - Keep your team small (less than 10 people).
  - Share Page 1 (above), hospital specific data, assessments, and patient stories to motivate the team into action.
  - Write out a compelling purpose (clear, challenging, consequential). Ask yourself, what does the team need to accomplish?

DO

- **Select a promising practice (intervention) for implementation**
  - Ask yourself, *what changes can we make that will result in improvement?*
  - Select an intervention to try. Attempt "low hanging fruit" first. Ex: Stewardship at Small and CA Hospitals, Develop and Improve your Program
  - Incorporate age friendly, rural, health equity, and/or patient-centered elements into your intervention.
  - Assess the financial feasibility of your intervention by conducting a cost-benefit analysis (if applicable) and obtain leadership approval.

- **Establish a measurement strategy**
  - Ask yourself, *how will we know a change is an improvement?*
  - Determine the types of data sources that already exist in your facility.
  - Evaluate potential data sources for tracking your intervention. Examples include: EHR reports, physical checklists, risk management reports.
  - Determine data collection method, frequency, and responsible team member(s).

- **Develop an action plan**
  - Write an [AIM statement](#).
  - Create a timeline for implementation of selected intervention.
  - Define role and responsibility for each team member.
- **Implement intervention**

STUDY

- **Analyze results**
  - Review progress toward improvement target.
  - Ask yourself, has the "current state" changed?

ACT

- **Adapt, Adopt, or Abandon**
  - Reconvene team members and key stakeholders to determine next steps.
  - Ask yourself, *was the intervention successful? How can we modify to create more improvement? Will a different intervention work better?*
- **Reflect, Share, and Spread**
  - Conduct a Team Debrief: consider what worked well and what did not. [Plan for sustaining the gain](#).

Additional Resources:

- [IHI Breakthrough Series White Paper](#), [IHI Comprehensive QI Toolkit](#), [Six Meetings for Success Video](#), [Jumpstart Stewardship Workbook](#)

Develop Your Own AIM Statement

Use the following template to create your own AIM statement for your project.

By _____ , the _____ at _____ will
Calendar Date   *Team/Department*   *Organization*

implement _____ to improve _____
Intervention   *Problem/Issue*

by _____ to benefit _____ .
How Much   *Whom*