Jumpstart Stewardship # 3 – Measuring Effectiveness

Montana ABS Collaborative

6/13/17
Thank you for spending your valuable time with us today.

This webinar will be recorded for your convenience.

A copy of today’s presentation and the webinar recording will be available on our website. A link to these resources will be emailed to you following the presentation.

All phones will be muted during the presentation and unmuted during the Q&A session. Computer users can use the chat box throughout the presentation.
Webinar Presenters/Support

- Patty Kosednar, Health IT Consultant;
  - Mountain–Pacific – Montana

- Lori Chikoyak, RN BSN – is an Infection Preventionist
  - Mountain–Pacific – Alaska

- Coleman Cutchins, PharmD, BCPS) is a board certified clinical pharmacist
  - Mountain–Pacific – Alaska

- Casey Driscoll, Hospital Improvement Innovation Network Project Director
  - Montana Hospital Association – Montana
Acronyms

- ABS – Antimicrobial Stewardship
- APIC – Association for Professionals in Infection Control
- ASP – Antimicrobial Stewardship Program
- CAH – Critical Access Hospital
- CDC – Center for Disease Control
- CMS – Centers for Medicare and Medicaid
- DOT – Days of therapy
- DPHHS – Department of Public Health and Human Services
- EHR – Electronic Health Record (software)
- FLEX – Medicare Rural Hospital Flexibility Program
- HAI – Hospital Acquired Infections
- HIIN – Hospital Innovation Improvement Network
- ICAR – Infection Control Assessment Tools
- MHA – Montana Hospital Association
- MP – Mountain-Pacific Quality Health
- MT – Montana
- QIO – Quality Improvement Organization
- QPP – Quality Payment Program (CMS)
- PPS – Prospective Payment Systems
MT ABS Collaborative Members

- Montana Hospital Association (MHA)
  - Flex Program
  - HIIN Program
  - Strive Program
- Mountain Pacific (MP)
  - Quality Improvement Organization (QIO) – outpatient focus
  - ICAR Program
- MT Department of Public Health and Human Services (DPHHS)
  - Communicable Disease Epidemiology Program
- Montana Communicable Disease Epidemiology/Skaggs School of Pharmacy (SSOP)
  - DPHHS contract
MT ABS Collaborative

Goal: Collaborate, assist facilities and offer resources, skills and tools available through the multiple programs into a combined state wide ASP implementation plan for use by MT inpatient and outpatient facilities

◦ Outcomes:
  • increase effectiveness of technical assistance and educational services provided by programs, reduce redundancy between programs and improve value add program ASP services to inpatient and outpatient facilities in MT
  • Increase % of performance on CDC ASP elements for inpatient and outpatient facilities in MT
  • Optimize and reduce inappropriate antibiotic usage and infection rates in MT
Webinar Objectives

- Review previously provided information and homework assignments from the Jumpstart Stewardship Workbook
- Review examples of effective measurements for your overall antimicrobial stewardship program and your individual interventions
- Discuss using data to choose interventions that matter most to your facility
- Review ASP alignment opportunities with other quality programs
- Provide instructions for next homework assignment
Be Prepared To:

- Share your approaches
- Share what barriers you might have run into
- Ask questions and share info with your colleagues
- Please participate😊
CDC ASP Core Elements

- Inpatient
  - Leadership Commitment
  - Accountability
  - Drug Expertise
  - Action
  - Tracking
  - Reporting
  - Education

- Outpatient
  - Action
  - Commitment
  - Education/Expertise
  - Tracking and Reporting
Poll Question

- Is this the first Jumpstart Stewardship webinar you have attended?
We are using the **Jumpstart Stewardship Implementation Guide** as a tool

- Created for small rural facilities (focuses on hospitals, but much of the information and tools can easily be used for outpatient/long term care as well)
MHA has taken the templates in the workbook and created a working MS Excel copy for you to use.

This MS Excel workbook will be used for all “homework” assignments and can be used for ASP project and audit documentation.

This workbook takes you through the process of setting up an ASP;
- identifying your current state thru developing an ASP implementation plan.
Jumpstart Stewardship Roadmap

Assess
Your Facility’s Current State

Identify
Key Stakeholders for Success

Build
Your Team and Resources

Plan
Mitigation Strategies for Potential Barriers

Evaluate
Data Sources for Key Metrics

Select
An Intervention

Create
Timeline for Implementation

Calculate
the Business Case

Write
Your Charter and Strategic Plan

Jump In!
Start Your Stewardship Activities
Assess Current State – Help identify
- Antibiotic use and patterns of use
- Rates of resistance
- Common clinical infectious disease
- Current “Gap” on CDC core elements

ID Key Stakeholders and Team – Help identify
- Stakeholders needed for success and how to engage them
- Assigning your team members and determining their roles/responsibilities
- Resources needed for ASP success (people, time, etc)
Select an intervention – helps identify
- How to select proven intervention approaches that make sense for your facility
- The key concept changes of each intervention are
- The advantages and disadvantages of each intervention
- How to identify which interventions are feasible for your facility
- How to make each intervention specific to your facility
Were you able to complete all previously assigned homework (as applicable)?

If you would you like help with completing your homework, in Montana contact:
  ◦ CAH – Casey Driscoll, MHA
    • Casey.driscoll@mtha.org
  ◦ PPS – Karl Milhon, MT DPHHS
    • Kmilhon@mt.gov
  ◦ Outpatient – Amber Rogers, Mountain Pacific
    • arogers@mpqhf.org

Outpatient facilities in AK, HI or WY – contact Lori Chikoyak, Mountain Pacific
  ◦ lchikoyak@mpqhf.org
You are now up to date

- Again, the Jumpstart Stewardship Workbook walks you through the process of developing a plan for your ASP implementation

- You can choose to go through the Workbook and develop a full ASP plan and then implement it

- Or you can choose to implement the core elements as you go through the Workbook

- Either way is fine, do what works best for your team
Today’s Topic: Measuring Effectiveness

Why is it important
  ◦ To know the impact of your ASP, you must identify, in advance, what your baseline (current) performance is and what changes you expect to see

There are 2 levels of metrics
  ◦ ASP program level – high overall program metrics that you will track forever (or until new/better metrics are identified)
  ◦ Intervention level – evaluation metrics specific to each intervention you implement
KISS

- Keep it simple, seriously
ASP Level – Key Metrics
Examples: Key Metrics for your overall Antimicrobial Stewardship Program

- Antibiotic Usage: NQF 2720 (days of therapy)
- Antibiotic Usage: Volume
- Antibiotic Usage: Purchase Cost
- Outcome: C. difficile infection rate

These are ASP level metrics to help monitor your overall program’s effectiveness

Choose one or more and establish your current baseline performance (for previous year, or at minimum last 90 days)
ASP Key Metric: Inpatient

- National Quality Forum (NQF) 2720
  - National Healthcare Safety Network (NHSN)
  - Measure Steward: CDC

- Days of Therapy (DOT)
  - **Denominator**: Days present for each patient – the number of patients who were present for any portion of each day of a calendar month for each location
  - **Numerator**: Days of antimicrobial therapy for antibacterial agents administered to patients in denominator

\[
\text{DOT} = \frac{\text{# of therapy days}}{\text{# of patient days}} \times 1000
\]

- [Link to NQF specification](#)
- [Link to NHSN specification details](#)
ASP Key Metrics: Inpatient

Cost of antibiotic Usage:
- Total Pharmacy cost for antibiotics per month/year (run previous year data)
- When census is variable: Pharmacy cost for antibiotics per discharge per month

Volume of antibiotic usage:
- Total antibiotic usage based on quantity of antibiotics ordered per month/year (run previous year data)
### ASP Key Metric: Inpatient

#### C. difficile infection rate:

<table>
<thead>
<tr>
<th>Facility-wide c. <em>Difficile</em> Rate</th>
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<tbody>
<tr>
<td><strong>c. Difficile: HIIN Evaluation Measure</strong></td>
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<tr>
<td>Facility-wide c. <em>Difficile</em> Rate</td>
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<tr>
<td>Measure type</td>
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<td>Numerator</td>
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<td>Denominator</td>
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<tr>
<td>Rate calculation</td>
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<td>Specifications/Definitions/ Sources/Recommendations</td>
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</tbody>
</table>
Program Evaluation Measures: Outpatient

Examples: Key Metrics for your overall Antimicrobial Stewardship Program

- Encounter % – Percent of all visits leading to antibiotic prescriptions (# of all encounters/# of encounters that lead to an antibiotic Rx)

- Volume – Total antibiotic usage based on quantity of antibiotics ordered per month/year

These are ASP level metrics to help monitor your overall program’s effectiveness

Choose one or more and establish your current baseline performance (for previous year, or at minimum last 90 days)
Other ideas?

- What ASP key metrics have you chosen or might you choose??
  - Inpatient
  - Outpatient

- Enter your comments into chat or speak up if on phone
Intervention Level – Evaluation Metrics
Use Data to Choose Action

- Review rates of common community acquired infections and identify top conditions
  - Review guidelines/treatment of specific infections – do you have best practices in place
- Look for specific providers with high rates of prescribing
  - Provide education, best practices and access to expertise
- Identify highest cost antibiotics and most often used
  - Are lower cost alternatives available
- Review documentation on antibiotic orders (dose, duration and indication)
  - Implement a policy to require data entry, make fields “mandatory” in EHR
- Review prolonged courses of antibiotics
  - Help identify clinical situations and/or infections where antibiotics are being continued for too long
Recommendations on how to Choose Interventions

- Make them relevant to your facility
- Use YOUR data to identify and prioritize your interventions
- Impact – your ASP should focus on initiatives that will positively impact quality, safety and/or cost of patient care
- Resources Required – Choose interventions that are feasible with the resources available to you
- Ease of Implementation – Start with the easier activities – expand as resources and ASP acceptance and expertise increase
- Start small and keep it simple….seriously
Other ideas?

- What data have you (or might you) used to help determine your interventions???

- Enter your comments into the chat, or speak up if on phone
Intervention Based Measures:

- Each policy, action or intervention you put in place for your ASP program should have evaluation measures associated with it and baseline data established BEFORE you begin/implement any changes.

- Find out current performance.
- Accurately track improvement.
Intervention Evaluation Measures – Examples:

- **Action**: Documentation in EHR dose, duration and indication for all antibiotic orders
  - **Evaluation Measure**: % of all fully documented orders

- **Action**: Order/obtain cultures prior to starting antibiotics
  - **Evaluation Measure**: % of patients where cultures were obtained prior to first dose of antibiotics

- **Action**: Establish a formal procedure to review appropriateness of all antibiotics 48 hours after initial order
  - **Evaluation Measure**: % of patients with antibiotic orders who received follow up 48 hours after initial order

- **Action**: Provide patient information with all antibiotic orders
  - **Evaluation Measure**: % of patients who received antibiotics and also received education on appropriate uses
Other ideas???

- What interventions have you chosen (or might you choose) and how are you measuring it?
  - Inpatient
  - Outpatient

- Enter your comments into the chat or speak up if on the phone
Alignment with other Programs – Inpatient

- Be aware of your facility’s quality reporting requirements. Work to align your ASP actions to benefit other programs as well:
  - HIIN – adverse drug events, hospital acquired infections
  - Inpatient Quality Reporting/Meaningful Use
    - CMS 188 – Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients
    - CMS 172 – Prophylactic Antibiotic Selection for Surgical Patients
    - CMS 171 – Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision
Alignment with other Program – Outpatient

- Merit Based Incentive Payment System (MIPS)
  - 9 clinical quality measures that support ASPs
  - 5 improvement activities that support ASPs
  - By implementing an ASP you can attest to improvement activity IA_PSPA_16 (use of decision support and standardized treatment protocols) which count as a bonus point for the advancing care information category of MIPS

- See the [QPP ASP Crosswalk](#) for more details
Jumpstart Stewardship Homework Assignment
Previous Homework

- Download the Jumpstart Stewardship Workbook in MS Excel format (this is your working toolkit)
- Complete previously assigned homework (tabs on bottom of Excel Workbook)
  - Current State
  - Core Elements
  - Infectious Clinical Syndrome
  - Antibiotic Use Profile
  - Stakeholder ID
  - Stakeholder 2
  - Stakeholder 3
  - Team ID
  - Committee
  - Resource Needs
  - Intervention Feasibility
  - Specific Interventions
Today’s Homework

- Jumpstart Stewardship Workbook
  - Complete Tab titled: Data Sources – will help identify ASP level and intervention level evaluation metrics and current (baseline) performance

Consider how you will monitor and evaluate your hospital’s progress toward goals. Can the data be **efficiently** and reliably collected and analyzed over time? Do the selected metrics reflect your stewardship program’s activities and interventions?

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Metric Indicate if Process, Outcome Or Balancing Metric</th>
<th>Numerator</th>
<th>Numerator Data Source Include Person Accountable For Providing Data</th>
<th>Denominator</th>
<th>Denominator Data Source Include Person Accountable For Providing Data</th>
<th>Time Period</th>
<th>Reported To</th>
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<th>Goal</th>
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Keep it simple, seriously
MT ABS Collaborative

- We have a new Blog
  - Active communication with all ASP partners/facilities
  - Will provide updated info, instruction, links, reminders on ASP
  - You can submit comments/questions directly to the MT ABS Collaborative team
  - You can add to the conversation and share best practices with other facilities
  - We will use the blog to announce all new and upcoming webinars, affinity groups, program deadlines, etc.

- Please subscribe today!!!

Next Education Events

- 7/19/17 – 1:00 (Mountain) Outpatient Antibiotic Use and Stewardship – [Link to webinar info](#)

- 7/18/17 – 1:00 (Mountain) Jumpstart Stewardship # 4 – Mitigating Barriers and ASP Implementation Planning – [Register](#)

- Recent Webinars – 5/25/17
  - Overcoming Common Barriers to ASP
  - ASP Implementation Pearls

- Please add into the chat box any additional education topics you recommend
**ABS Resources**

- **ABS Collaborative Resources Webpage**
  - All upcoming webinars and past webinar information, templates, links, etc

- **ABS Blog – Subscribe here**

- **Outpatient ABS Page (QIO)**
  - Tools and templates for Outpatient facilities

- **Jumpstart Stewardship Workbook (Excel)**
Inpatient facility: **Strategies to assess antibiotic use and identify possible strategies for improvement in hospitals** (CDC):

Outpatient: **treatment/intervention/action recommendations for adults and pediatric patients** (CDC)

Inpatient facility: **patient education material/flyer** (CDC)

Outpatient facility: **patient education materials/fliers** (CDC) (click on “materials and references” in left hand navigation and then “print materials”)

**ABS Resources, cont.**
ABS Blog Subscribe Today

We will use this Montana ABS blog as our “one voice” to standardize and streamline communication and education/outreach to all our partnering facilities. Take a minute to subscribe to this blog and receive the latest Montana ABS blogs by email. Also see the MT ABS Resources page for more links to upcoming webinars, tools and resources.

Take just a few minutes to subscribe and start receiving the latest Montana Antimicrobial Stewardship (ABS) blogs by email.

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All Blog Posts:

- June 7, 2017: Register for the Next Jump Start Webinar
- May 30, 2017: Catch Up on Your Jump Start Homework
- May 25, 2017: Montana ABS Webinar Materials
- May 10, 2017: Outpatient Antibiotic Stewardship Core Elements
- April 30, 2017: Inpatient Antibiotic Stewardship Core Elements
- April 20, 2017: Introducing the Jump Start Stewardship Toolkit
- April 6, 2017: Welcome to the Montana Antimicrobial Stewardship Collaborative

Link to Subscribe
ABS Contacts

- In Montana:
  - CAH – Casey Driscoll, MHA
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  - PPS – Karl Milhon, MT DPHHS
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THANK YOU