HAI/AR Collaborating Partners

October 26, 2018
Agenda

12:00-12:10 PM  Introductions and opening Comments
12:10-12:20 PM  Review of the minutes
12:20-12:30 PM  Membership update

Developing of the HAI/AR State Plan:
12:30-2:00 PM  Analyze: Health Info Net (HIN) & Maine Health Data Organization (MHDO)
2:00-2:30 PM   Respond: Emerging Pathogens
2:30-3:15 PM   Prevent: A State Reduction Strategy
3:15-3:30 PM   Education
3:30-3:40 PM   Resources

3:40-3:55 PM   2019 meeting schedule and upcoming topics
3:55-4:00 PM   Parking lot / adjournment
Membership Updates

• Consumer
  – Ann Woloson, Executive Director
  Consumers for Affordable Healthcare

• Recruiting for...
  – Pharmacy
  – ALI Laboratory
  – Healthcare Administration
Analyze: Data Access

HealthInfoNet

MHDO Maine Health Data Organization

Information | Insight | Improvement
Novel/Targeted Multi-drug Resistant Organisms

• State surveillance (Notifiable Conditions Rule)

• CDC’s Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs)
Special Pathogens

WHO List of those pathogens likely to cause severe outbreak in near future, and few or no medical countermeasures exist (12.10.2015)

- Coronaviruses (MERS, SARS)
- Hemorrhagic Fever (Crimean Congo, Lassa, Ebola, Marburg)
- Zoonotic (Nipah Virus*, Rift Valley Fever)

*Human to Human transmission may be possible

Target Areas:
1. State Plan(s)
   1. Ebola Readiness Checks – Assessment Hospitals (NETEC)
   2. Assessment Hospital status for all Special Pathogens
   3. Front line Hospital Readiness
Prevent: a State HAI Reduction Strategy
Overview

- CEO Dashboard
  - All Hospitals receive a facility specific report

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Number of Infections - 2017</th>
<th>Must Prevent To Reach Goal</th>
<th>Facility SIR - 2017</th>
<th>ME SIR for IPPS Hospitals - 2017</th>
<th>2020 National HHS SIR Goal</th>
<th>Facility SIR Below 2020 National HHS SIR Goal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTI</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>1.30</td>
<td>0.75</td>
<td>YES</td>
</tr>
<tr>
<td>CLABSI</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.91</td>
<td>0.50</td>
<td>YES</td>
</tr>
<tr>
<td>LabID - CDI</td>
<td>2</td>
<td>0</td>
<td>0.28</td>
<td>0.69</td>
<td>0.70</td>
<td>YES</td>
</tr>
<tr>
<td>LabID – MRSA BSI</td>
<td>1</td>
<td>1</td>
<td>NC</td>
<td>0.65</td>
<td>0.50</td>
<td>NO</td>
</tr>
<tr>
<td>SSI - COLO</td>
<td>3</td>
<td>2</td>
<td>1.56</td>
<td>1.05</td>
<td>0.70</td>
<td>NO</td>
</tr>
<tr>
<td>SSI - HYST</td>
<td>1</td>
<td>1</td>
<td>NC</td>
<td>0.67</td>
<td>0.70</td>
<td>NO</td>
</tr>
</tbody>
</table>

- High Rate Report *(high rate = not at 2020 goal)*
  - Only Hospitals with High Rates receive (ICP Department)
  - Promotes use of the TAP Strategy
    - Measure of Success: ?? (rare for facility to want to do TAP)
2018

• June: CEO Dashboard Report
  – CY2017 data

• Sept: High Rate Facility (top 25%)
  – 2017Q2-2018Q1 data (post NHSN deadline)
  – Only 66% of hospitals had entered Q2 data (before NHSN deadline) to use 2017Q3-2018Q2
  – Sent to CEO and ICP Department

• Oct: TAP Strategy (10 high rate hospitals)
  – 70-80% had a formal reduction program in place
    • Having a formal strategy is not necessarily an indicator of reduction
  – 2 signed up for TAP Strategy
  – 4 were CLABSI or CAUTI free for 8-16 months, (HAI = 2/year)
2019 and Beyond

Hospitals

- CAUTI
- CLABSI
- CDI
- MRSA-BSI (SSI)
Goal Setting I

• DHHS 2020 HAI Goals
  – (based on % reduction from 2015 rebaseline of SIR)
    – CAUTI ≤ 0.75 (25%)
    – CDI ≤ 0.70 (30%)
    – SSI ≤ 0.70 (30%)
    – CLABSI ≤ 0.50 (50%)
    – MRSA-BSI ≤ 0.50 (50%)

• DHHS 2030 HAI Goals (TBD)
  – Baseline: likely based on CY2020 data
  – Goals: likely be posted in Spring 2021
    • likely similar reduction % from CY2020 data
  – Success Measure: likely based on CY2030 data
### Goal Setting II

<table>
<thead>
<tr>
<th>HAI Quality Indicator</th>
<th>Impact 2017 HAI Events</th>
<th>Estimated Average Healthcare Cost per HAI</th>
<th>Estimated Maine Healthcare Cost</th>
<th>Estimated Mortality (literature)</th>
<th>Where are we? 2017 SIR (2015 baseline)</th>
<th>Target SIR 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDI (HO)</td>
<td>249</td>
<td>$15,000 2008</td>
<td>$3.7 M</td>
<td>45 18%</td>
<td>0.693 =</td>
<td>≤ 0.70</td>
</tr>
<tr>
<td>CLABSII ★★</td>
<td>50</td>
<td>$20,000 2009</td>
<td>$1.0 M</td>
<td>10 19%</td>
<td>0.900 ↑↓</td>
<td>≤ 0.50</td>
</tr>
<tr>
<td>MRSAS (BSI, HO) ★</td>
<td>23</td>
<td>$34,500 2010</td>
<td>$0.8 M</td>
<td>5 20%</td>
<td>0.712 ↑</td>
<td>≤ 0.50</td>
</tr>
<tr>
<td>SSI (COLO, HYST)</td>
<td>49</td>
<td>$21,000 2014</td>
<td>$1.1 M</td>
<td>2 3%</td>
<td>0.968 ↓</td>
<td>≤ 0.70</td>
</tr>
<tr>
<td>CAUTI ★</td>
<td>78</td>
<td>$7,670 2016</td>
<td>$0.6M</td>
<td>2 2%</td>
<td>1.320 ↑↓</td>
<td>≤ 0.75</td>
</tr>
</tbody>
</table>

- **Make a push for reduction in next 5 years for 2 HAIs**
  - ★ furthest from DHHS goals
  - ★ highest data-based priorities, not at goal
  - other?
Methodology

- Target High Rate Facilities for reduction
  - Formal Strategy / TAP Strategy

- Add?...Targeted Infection Control Assessment by Maine CDC’s Healthcare Epidemiology Program (non-regulatory)
  - If high rate?
  - If statistically significantly high rate?

- ________??________ for facilities with low numbers of infections/year to reduce
  - Root Cause Analysis – share findings with Maine CDC?
  - Other?
Commitment

• CEOs
  – Work with MHA to speak to CEOs at meeting
  – Regular updates to CEOs
    • Facility comparison maps (peer group or name?)
  – Do we need to make the business case?
    • What is the driver when facility has 2 or less infections a year to reduce?
  – CEO Commitment: for facility to be actively engaged in a formal HAI reduction strategy. More?
Resources / Tools Needed

• Reports?

• Data Analysis?

• Reduction Strategies?

• Education?

• Other?
What’s Next for Maine?

Healthcare Delivery (n=3468)

- Outpatient Care Facilities: 72%
- Long-Term Care Facilities: 27%
- Hospitals: 1%

What about Outpatient Care?

LTC: Infection Control Assessments and Education
Accessing data
- CDI
- UTI (next?)

Hospitals: Have data - HAI reduction
- CLABSI
- CAUTI
- CDI
- MRSA-BSI
- SSI
2019 and Beyond
Outpatient Setting

ORAL ANTIBIOTIC PRESCRIBING BY PROVIDER TYPE IN THE UNITED STATES IN 2014

<table>
<thead>
<tr>
<th>Provider type</th>
<th>Number of antibiotic prescriptions in 2014 (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Practice Physicians</td>
<td>58.1</td>
</tr>
<tr>
<td>Physician Assistants &amp; Nurse Practitioners</td>
<td>54.4</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>30.1</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>25.4</td>
</tr>
<tr>
<td>Dentistry</td>
<td>24.9</td>
</tr>
<tr>
<td>Surgical Specialties</td>
<td>19.9</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>14.2</td>
</tr>
<tr>
<td>Dermatology</td>
<td>7.6</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>6.6</td>
</tr>
<tr>
<td>Other</td>
<td>25.0</td>
</tr>
<tr>
<td>All Providers</td>
<td>206.1</td>
</tr>
</tbody>
</table>
Outpatient Setting

GEOGRAPHIC VARIABILITY IN HEDIS MEASURES RELATED TO APPROPRIATE ANTIBiotic USE

Avoidance of antibiotic treatment in adults with acute bronchitis (average), by Census division, 2008-2012

CDC reports found that healthy adults with acute bronchitis only received the right treatment—meaning they did not get an antibiotic—just over 30 percent of the time. This shows that nearly 90 percent of the time, patients were getting an antibiotic unnecessarily.

PERCENT OF ANTIBIOTIC PRESCRIPTIONS THAT WERE UNNECESSARY

<table>
<thead>
<tr>
<th></th>
<th>All conditions*</th>
<th>Acute respiratory conditions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-19 year olds</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td>20-64 year olds</td>
<td>35%</td>
<td>70%</td>
</tr>
<tr>
<td>≥65 year olds</td>
<td>18%</td>
<td>54%</td>
</tr>
<tr>
<td>All ages</td>
<td>30%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*All conditions included acute respiratory conditions, urinary tract infections, miscellaneous bacterial infections, and other conditions.

**Acute respiratory conditions included ear infections, sinus infections, sore throats, pneumonia, acute bronchitis, bronchiolitis, upper respiratory infections (e.g., common colds), influenza, asthma, allergy, and viral pneumonia.

PERCENT OF PATIENTS RECEIVING THE RECOMMENDED FIRST-LINE ANTIBIOTIC BY CONDITION, UNITED STATES, 2010-2011*

<table>
<thead>
<tr>
<th></th>
<th>Adults (20+ years of age)</th>
<th>Children (0–19 years of age)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sinus infection</td>
<td>37%</td>
<td>52%</td>
</tr>
<tr>
<td>Pharyngitis (sore throat)</td>
<td>37%</td>
<td>60%</td>
</tr>
<tr>
<td>Middle ear infection</td>
<td>N/A</td>
<td>67%</td>
</tr>
</tbody>
</table>

*Based on the prevalence of allergy to first-line antibiotics and estimated treatment failures after first-line antibiotics, at least 60% of patients presenting with these conditions should receive first-line antibiotics. Analysis is based on NAMCS and NHAMCS data.
Goal Setting

2019:

• Data for Action
  – Obtain access to Antibiotic Utilization data
    • **All Payer Claims** (most inclusive)
    • Inpatient/ED
    • Medicare
    • Medicaid
2020-2023:

• Use data to target antibiotic utilization reduction activities, then measure success
  – Activities ??
Infection Prevention Education

- Engage with non-IP healthcare professional groups (e.g. Pharmacy, Physicians)
  - Groups and Topics
    - Understanding CRE (CP-CRE, nonCP-CRE)

- Best places for patient/public education outside of the Healthcare Facility (on a small budget)?
Infection Control Resources

• Website

• Patient/Public Education
  – Introducing...a new brochure
Antibiotic Awareness Week
Nov 12-18, 2018

• Hospital TV ads
• Letters to the Editor (Newspapers)
• Professional Newsletters
• Maine CDC social media
• New brochure on Maine CDC Orderable Materials webpage
Next Year

• Meeting Dates
  – February 22, 2019
  – April 26, 2019
  – August 23, 2019
  – October 25, 2019

• Location: TBD

• Next Meeting
  – State Plan (Draft)
  – Program Authority (to enter a facility)
  – RESPOND: Outbreaks
Questions?

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