Measuring Exposure to Antibiotics in Long Term Care Facility Residents – Frequently Asked Questions
Part 1 January 5 2017
Part 2 February 3 2017

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Career Epidemiology Field Officer
02/03/2017
• Part 1.
• Date: January 5, 2017
Frequently Asked Questions

• **Question 1:**
  • If we admitted a patient who had the diagnosis made during the month during which data is being reported, but was not in the facility at the time the diagnosis was made and did not have liquid bms during the stay in our facility, but was being treated with flagyl during the stay in our facility, shall we count it as a case of C diff?

• **Answer:**
  • Diagnosis and specimen collection date are two different dates. Date of diagnosis does not matter. But if the date of specimen collection was outside of the date range when patient stayed in the LTC facility, you should not report this case as a *C. difficile*. 
Frequently Asked Questions

• **Question 2:** If the antibiotic started prior to being in our facility and we finish out the course, do we count just the days they took it that they were in our facility?

• **Answer:** Yes
Frequently Asked Questions

• **Question 3:**
  • If they continue the course after discharge, do we count just the days they took it that they were in our facility?
• **Answer:**
• Yes
Frequently Asked Questions

• Question 4:
  Some of my antibiotics were ordered bid and received to start administering in the middle of a day. So even though it might have been considered a 3 day course or a 5 day course, I see that we gave it on 4 separate dates, or in the case of the 5 day course, on 6 separate dates. Would you like me to fill in the data using the number of different dates that the resident received at least one dose?

• Answer:
  “Number of regimens” is essentially the number of prescriptions.
  “Days of supply” is for how many days you consider giving that medication to your patients.
  For example,
  If you received 2 prescriptions of Penicillin in February and each for 5 days of supply, you should say that you received 10 days of supply.
  It does not matter whether you give your patients for 5 days or 6 days. If initially the course was intended for 5 days, you should say that the days of supply is 5 days, even if you give it to your patient for 6 separate days.
Question 5:
How to compute “Resident-Days”? So for example, our facility has 76 LTC patients and there were 31 days in December. Would my “Resident-Days” then be 76 x 31 = 2356?

Answer:
Yes, only if each resident stayed in your facility for 31 days.
Further Clarifications on Question 5

- **Number of residents**: Take your census number at the beginning of the month (76) and then add your number of new admissions (with overnight stays) at the end of the month.
- For example, 76 census at Feb 1 and 15 new admits for the month of February = 91 residents for February. Essentially we are looking for the number of names, so to speak.
- **Resident-days**: It means number of residents multiplied by the number of days they stayed in LTC facility.
- **Example**:
  - You have 3 residents in your facility in December.
    - 1 resident stayed for 5 days
    - 1 resident for 7 days
    - 1 resident for 2 days
  - Number of Residents = 3
  - Number of resident days = 5+7+2 = 14
Frequently Asked Questions

• **Question 6:**
• Do we need to know if *C. difficile* cases are healthcare acquired and those that are Present on admission or present on arrival?
• **Answer:**
• We don’t need those details. If *C. difficile* diarrhea was diagnosed with someone in LTC facility and the specimen collection date was the date when that person lived in that facility during that month, it needs to be reported.
Counting days of therapy as opposed to counting days of supply

- **Days of supply:**
  - Patient was supposed to receive 10 pills as part of 1 prescription

- **Days of therapy:**
  - Patient received only 3, because on day 4 she developed an allergy

- **Days of supply = 10**
- **Days of therapy = 3**
Part 2.
Date: February 3, 2017
Updates and FAQ (part 2)
Moving Towards Days of Therapy

• We have been waiting for 1 week
• Nobody rejected an idea of replacing “days of supply” with the “days of therapy”
• We will make appropriate change in the survey

• Days of therapy measures the number of days the patient actually received an antibiotic
Counting Days of Therapy

- Patient was supposed to receive 10 pills as part of 1 prescription (1 regimen)

- **Days of therapy:**
  - Patient received only 3, because on day 4 she developed an allergy

- **Days of supply = 10**

- **Days of therapy = 3**
Blinding a Survey Results

- Each facility will be assigned a specific letter that will be communicated with a facility in a private email.
- For example:
  - “Nursing home Pierre” will be given a random letter- A
  - “Nursing home Rapid City” will be given a letter B
  - Examples only – these will NOT be the letters assigned

- We will generate 1 report that will include all facility data plus statewide data and send by email to everyone.

- Each facility will find their own data under pre-assigned letter.
Scoring System

• To find out which facility needs help and is currently in trouble
• Scoring system will use only 3 measures to assess facility’s current status:
  – Higher than state mean in number of regimens
  – Higher than state mean in number of days of therapy for all antibiotics
  – Higher than state mean in any antibiotic group by mechanism of action
## Scoring System

<table>
<thead>
<tr>
<th></th>
<th>Higher than state mean in number of regimens per 1,000 residents</th>
<th>Higher than state mean in number of days of therapy per 1,000 days of therapy for all antibiotics</th>
<th>Higher than state mean in any antibiotic group by mechanism of activity</th>
<th>Score</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility X</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>This facility has a problem</td>
</tr>
<tr>
<td>Facility Y</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Facility Z</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Facility X:** Score = 1 + 1 + 1 = 3

**Facility Y:** Score = 1 + 0 + 0 = 1

**Facility Z:** Score = 1 + 1 + 0 = 2

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**Legend:**
- **1** indicates that the facility is higher than the state mean.
- **0** indicates that the facility is not higher than the state mean.
- **Score** is calculated by summing the higher than state mean indicators.
- **Remarks:** Indicates if the facility has a problem based on its score.
Question 1:
If LTC resident receives IV antibiotics in outpatient clinic, do we want to report those data?

Answer:
Yes, since that patient is a LTC resident and stays overnight in your facility.
• **Question 2:**
  If the resident is discharged and then readmitted to the same facility in the same month, is that one resident or two for the number of residents total?

• **Answer:**
  It’s 1 resident. Remember: we count the names
  10 names in a single month = 10 residents
Question 3:
Should the antibiotic that was ordered on 1/28 to be given x 7 days be documented as 1 regimen, 4 days of therapy?

Answer:
Yes.

Question:
and then in February not be mentioned, though the remaining 3 days of therapy were given, since there is not a new regimen in February?

Answer:
In February you should still report 1 regimen and 3 days of therapy. Because those 3 days are part of 1 regimen.
• **Question 4:**
  I have a resident on long term antibiotic therapy for chronic UTI and she takes Bactrim. I don’t have any new regimen, just the same daily dosing that was ordered several months ago, so I wasn’t planning to report on her. Is that correct?

• **Answer:**
  No. You should report 1 regimen and the days of therapy, even if the prescription was written several months ago. Because your patient receives medications as part of 1 prescription. If prescription was not changed in the next month and you continue giving her Bactrim, you should still report: 1 regimen, XX days of therapy in the next month.
Question 5: Are we entering antibiotics for eye/ear drops/ointments?

Answer: No.
• **Question 6:**
  • Do you want us to count the residents that are admitted to us that are already prescribed an antibiotic?

• **Answer:**
  • Yes

• **Question:**
  • If Resident A was admitted to our facility yesterday from the hospital and while Resident A was in the hospital they start Rocephin and the Physician wants Rocephin to be continued in our facility, we still count this, correct?

• **Answer:**
  • Yes. But you will only report days of therapy depending on the number of days that she received antibiotics in your facility. You should report 1 regimen, XX days of therapy.
Training Opportunities (at no cost to you) are available with continuing education credits. AHRQ has a toolkit to help you understand stewardship and how it applies in your facility.

https://www.ahrq.gov/nhguide/toolkits/implement-monitor-sustain-program/toolkit1-start-program.html

* Online training module to review conditions in LTC

https://nursinghomeinfections.unc.edu/nurses/
### Example of Modules available

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<td>Colonization vs. Infection</td>
<td>Cloudy or Smelly Urine</td>
<td>Understanding Urinalysis and Urine Culture Results</td>
<td>Could It Be a Urine Infection?</td>
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**Quiz 1:**

Modules 1 - 5

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<td>Communicating with Providers</td>
<td>Infection Control for Prevention</td>
<td>Putting It All Together</td>
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**Quiz 2:**

Modules 6 - 10
If you Have Questions on…

- Project content: Nato.tarkhashvili@state.sd.us
- Technical issues: Eric.grimm@state.sd.us
- AR program, changes to participation, or any other questions: Angela.Jackley@state.sd.us

You may find a copy of the Project Overview Presentation on the HAI Webpage
http://doh.sd.gov/diseases/hai/