National Healthcare Safety Network

Long Term Care Facility Component
Prevention Process Measures Module:
Hand Hygiene Event Reporting
Gown/Gloves Use Event Reporting

Ti McCray, MPH
Infection Preventionist
July 10, 2019
Overview

- Introduction
- Goals and Benefits of Long-Term Care Facility (LTCF) participation
- Protocol and Definitions
- LTCF Data Collection
  - Prevention Process Measures (PPM) Opportunities
  - Process and Resources
- Reporting
  - Monthly Reporting Plan (MRP)
  - Monthly Summary Data
  - Calculating Adherence Rates
NHSN Long-term Care Facility Component
Prevention Process Measures Module

Prevention Process Measures
- Hand Hygiene
- Gowns/Gloves
What are the benefits to using NHSN?

- Reinforces and supports the CMS Quality Assurance and Performance Improvement (QAPI) initiative for improving safety and quality in nursing homes.

- Assists with measuring staff infection prevention & control practices (e.g. Hand Hygiene).

- Aids nursing home personnel with prevention and control practices for reducing the incidence of healthcare associated infections and costs.

- Offers the use of electronic database for targeted quality measures that will help to improve healthcare delivery practices.

Quality Assurance Performance Improvement (QAPI) 42 CFR, Part §483.75
Prevention Process Measures Module
Hand Hygiene
Hand Hygiene Protocol

- Hand Hygiene (HH) Adherence is monitored by direct observation of Healthcare Personnel (HCP) practices in resident care areas throughout the facility.

  - LTCF staff other than an infection preventionist can be trained to perform the observations and collect required data elements.
  
  - **Total # Performed:** Total number of observed instances during which staff hand hygiene was successfully performed.
  
  - **Total # Indicated:** Total number of observed instances during which staff hand hygiene was warranted.

- Perform at least 30 unannounced observations of varied HCPs *after* contact with residents or inanimate objects in resident’s vicinity each month.
### Hand Hygiene Opportunities in Long Term Care Facilities

<table>
<thead>
<tr>
<th>Hand Hygiene Opportunity (5 Moments)</th>
<th>Specific Examples</th>
</tr>
</thead>
</table>
| 1. Prior to touching a resident      | • Prior to delivering care and other non-invasive treatment  
• Prior to assisting a resident with personal care activities  
• Prior to performing a physical non-invasive exam |
| 2. Prior to clean/aseptic procedures | • Prior to drawing blood sample from resident finger  
• Prior to performing catheter site care  
• Prior to administering medications |
| 3. After body fluid exposure risk    | • After inserting or removing an invasive medical device  
• After removing any protective material  
• After clearing excreta and other bodily fluid |
| 4. After touching a resident        | • After delivering care and other non-invasive treatment  
• After assisting resident with personal care activities  
• After removing gloves |
| 5. After touching resident surroundings | • After physical contact with the resident’s immediate environment |

Pictures courtesy of [WHO | WHO 5 Moments posters for Hand Hygiene](#)
How many unannounced observations are suggested to be performed each month?

A. 10  
B. 15  
C. 30

**Rationale:** The observer should perform at least 30 unannounced observations of varied HCPs after contact with residents or inanimate objects in resident’s vicinity each month.
Prevention Process Measures Module
Gown and Gloves Use
Gown & Gloves Use Protocol

- Monitor Gown and Gloves Use by HCP during interactions with residents who are placed in Transmission-based Contact Precautions

- Appropriate gown and gloves use:
  - Donning of both a gown and gloves prior to contact with a resident or inanimate surfaces/objects in vicinity of resident
  - Use of gloves only without a gown would not count as appropriate use when the resident is placed in Transmission-based Contact Precautions

- Perform at least 30 unannounced observations of varied HCP during their interactions with residents who are placed in Transmission-Based Contact Precautions each month.
## Opportunities for Gown & Gloves Usage in Long-Term Care Facilities

<table>
<thead>
<tr>
<th>Gown &amp; Gloves</th>
<th>Recommended Best Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Gown" /></td>
<td>Administering resident care for wound secretions</td>
</tr>
<tr>
<td><img src="image2" alt="Gloves" /></td>
<td>Cleaning an incontinent resident with diarrhea</td>
</tr>
<tr>
<td></td>
<td>If a resident is in contact precautions (MRSA and <em>C. difficile</em> are examples of two types of bacteria, which may be spread through contact)</td>
</tr>
<tr>
<td></td>
<td>Responding to an emergency where blood is spurting</td>
</tr>
<tr>
<td></td>
<td>When handling contaminated items</td>
</tr>
</tbody>
</table>
What is considered the appropriate practice of Gown and Glove Use by Healthcare Personnel?

A. Use of gown during interactions with residents who are placed on Contact Precautions

B. Only when gloves are used

C. Donning of both gown and gloves prior to contact with a resident or surfaces/objects in vicinity of resident placed in Transmission-based Contact Precautions

**Rationale:** Appropriate gown and gloves use is the donning of both a gown and gloves prior to contact with a resident or inanimate surfaces/objects in vicinity of resident. If gloves are used without a gown, it would not count as appropriate use when the resident is placed in Transmission-based Contact Precautions.
Prevention Process Measures Module:
Data Collection Process and Tools
Data Collection Process

- **Observations should be discrete**
  - To prevent staff disruption while administering care
  - To prevent data collection from influencing staff performance

- **Try to ensure that observations are as representative as possible of normal practice at the facility:**
  - Observe different staff members on different days and shifts
  - Consider observing during particularly busy times (e.g. shift change), when staff may be less attentive to proper practices

- **Focus on an area of the unit where staff interaction with residents are clearly visible**
  - This may include observation of several staff members
  - In general, hand hygiene should be performed prior to and following direct contact with residents
Prevention Process Measures Module Resources

Click on title to expand LTC Facilities Materials menu

Click on module title to access resources

Long-term Care Facilities

The NHSN, Long-term Care Facility (LTCF) Component provides long-term care facilities with a customized system to track infections and prevention process measures in a systematic way.

Tracking this information allows facilities to identify problems, improve care, and determine progress toward national healthcare-associated infection goals.

Facilities eligible to report into all modules of this component include nursing homes, skilled nursing, chronic care, and developmental disability facilities. Assisted living facilities can only report into the prevention process measures module.

Long-term acute care hospitals (LTACHs) are not eligible to report into this component.

LONG-TERM CARE FACILITY COMPONENT MODULES

Click on each module to access relevant training, protocols, data collection forms, supporting materials, analysis resources, and FAQs.

- C. difficile Infection (CDI) and Multidrug-resistant Organisms (MDRO)
- Urinary Tract Infections (UTI)
- Prevention Process Measures
  - Hand Hygiene, Gloves and Gown Use Adherence
NHSN Forms and Instructions

- **CDC57.143: Prevention Process Measures Monthly Monitoring Form**
  - Resembles Summary Data page in the NHSN application
  - Specific to PPM Reporting
  - Customizable
  - Total counts only
    - Numerator (performed/used)
    - Denominator (indicated)
  - Available on NHSN website:
    - [https://www.cdc.gov/nhsn/ltc/process-measures/index.html](https://www.cdc.gov/nhsn/ltc/process-measures/index.html)
Hand Hygiene Observation Tools
LTC Prevention Process Measures Module: Reporting
Reporting Requirements

- Facilities must indicate HH and/or GG use surveillance in the *Monthly Reporting Plan (MRP)* for LTCF
  
  - If a MRP has already been saved, it can be edited to add “HH” and/or “GG”

- Perform at least 30 unannounced observations of HCP interactions

- We *strongly recommend* surveillance should be reported for at least 6 consecutive months to provide meaningful measures
  
  - HH surveillance should be performed facility-wide and include all types of HCP
  
  - GG use surveillance should be performed facility-wide for all HCP caring for residents placed in Transmission-Based Contact precautions
Getting Started with your Monthly Reporting Plan: Add MRP

1. From the navigation bar, select “Reporting Plan”, then “Add”

**NOTE:** Reporting location is prepopulated to Facility-wide Inpatient (FacWideIN)

2. Indicate the month and year data were collected

3. Chose either “HH” and/or “GG” checkbox under the “Prevention Process Measure Module”

4. Click “Save”
Edit Monthly Reporting Plan

- Plans may be edited to add or remove surveillance selections.
- If event data has already been entered for a selected month, the plan may not be deleted unless the event data is also deleted.
Completed Monthly Reporting Plan

**View Monthly Reporting Plan**

Mandatory fields marked with *

- Facility ID: Angela LTCF Test Facility (39455)
  - Month: June
  - Year: 2018

Tick box No Long Term Care Facility Component Modules Followed this Month

### HAI Module

<table>
<thead>
<tr>
<th>Locations</th>
<th>UTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>✓</td>
</tr>
</tbody>
</table>

### LabID Event Module

<table>
<thead>
<tr>
<th>Locations</th>
<th>Specific Organism Type</th>
<th>Lab ID Event All Specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>CDIF - C. difficile</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Prevention Process Measure Module

<table>
<thead>
<tr>
<th>Locations</th>
<th>Hand Hygiene</th>
<th>Gown and Gloves Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Time to Report Summary Data:

1. From the navigation bar, select “Summary Data”, then “Add”
   
   Reporting location is prepopulated to “Facility-wide Inpatient (FacWideIN)"

2. Indicate the month and year data were collected

3. Report the summary of all of the “HH” and/or “GG” observations:
   - Total # “Performed/Used” (numerator)
   - Total # “Indicated” (denominator)

4. Click “Save”

**Important Note:** At the end of each month, enter the monthly total numerator/denominator into the NHSN application
Completed Monthly Summary Data

### Denominators for Long Term Care Locations

<table>
<thead>
<tr>
<th>Location Code</th>
<th>Total Resident Days</th>
<th>Urinary Catheter Days</th>
<th>Report No Uti</th>
<th>New Antibiotic Starts for UTI Indication</th>
<th>Number of Urine Cultures Ordered</th>
<th>Custom Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>250</td>
<td>*</td>
<td>*</td>
<td>0</td>
<td>*</td>
<td>0</td>
</tr>
</tbody>
</table>

### MDRO & CDI LabID Event Reporting

<table>
<thead>
<tr>
<th>Location Code</th>
<th>Resident Admissions:</th>
<th>Resident Days:</th>
<th>LabID Event (All specimens)</th>
<th>Report No Events</th>
<th>MRSA</th>
<th>VRE</th>
<th>CRE-E. coli</th>
<th>CRE-Enterobacter</th>
<th>CRE-Klebsiella</th>
<th>C. difficile</th>
<th>MRB-Acinobacter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>1</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Admissions on C. diff Treatment:</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Prevention Process Measures

<table>
<thead>
<tr>
<th>Location Code</th>
<th>Hand Hygiene</th>
<th>Gown and Gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Performed</td>
<td>Indicated</td>
</tr>
<tr>
<td></td>
<td>Used</td>
<td>Indicated</td>
</tr>
<tr>
<td>Facility-wide Inpatient (FacWIDEIn)</td>
<td>50</td>
<td>*60</td>
</tr>
</tbody>
</table>

Completed Monthly Summary Data Entry
How is this data meaningful?

- To *calculate rates of adherence* for HH and/or GG use opportunities among all healthcare personnel (HCP) in a facility

- To *provide feedback* to HCP on adherence to HH and/or GG use

- To *assess the impact of efforts* to improve HH and/or GG use practices by HCP over time
Prevention Process Measures Analysis Dashboard

Long Term Care Dashboard

1. Only completed monthly reports for each quarter is shown.
2. Hand Hygiene Adherence Rate = Number of contacts for which hand hygiene was performed / Number of contacts for which hand hygiene was indicated X 100
3. Gown and Glove Use Adherence Rate = Number of contacts for which gown and gloves were used / Number of contacts for which gown and gloves were indicated X 100

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Performed</th>
<th>Indicated</th>
<th>Adherence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018Q1</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q2</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q3</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q4</td>
<td>93</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2019Q1</td>
<td>89</td>
<td>90</td>
<td>98.89</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Used</th>
<th>Indicated</th>
<th>Adherence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018Q1</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q2</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q3</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2018Q4</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
<tr>
<td>2019Q1</td>
<td>90</td>
<td>90</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1. Used = Total number of observed contacts between a HCP and a resident or objects/surfaces within a resident’s room, when that resident is on Transmission-based Contact Precautions, for which gown and gloves were donned prior to contact.
2. Indicated = Total number of observed contacts between a HCP and a resident or objects/surfaces within a resident’s room on Transmission-based Contact Precautions, for which gown and gloves were indicated.
3. Adherence Rate = Number of contacts for which gown and gloves were used / Number of contacts for which gown and gloves were indicated X 100.
Let’s Review!

- You can perform monitoring of hand hygiene, or gown and gloves use, or both

- To get the most from your data:
  - Minimum reporting is six months during a calendar year
  - Monitoring should include all types of healthcare personnel throughout the entire facility
  - Must enter a minimum of 30 observations per month for each event

- LTCF staff can be trained to perform the observations, collect required data elements, and analyze the data. (*Staff may include: Professional Nursing Staff, Infection Prevention & Control Staff, LTCF Primary Contact, NHSN Facility Administrator, etc.*)
NHSN Resources

- NHSN Home Page
  - https://www.cdc.gov/nhsn/index.html

- NHSN LTCF Component
  - https://www.cdc.gov/nhsn/ltc/index.html

- LTCF Component Prevention Process Measures Module
  - https://www.cdc.gov/nhsn/ltc/process-measures/index.html

Questions or Need Help? Contact User Support at nhsn@cdc.gov

****All e-mail Inquiries should be sent to nhsn@cdc.gov for triage and delegation
THANK YOU
Questions
nhsn@cdc.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: NHSN@cdc.gov
Web: http://www.cdc.gov/nhsn

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.