



# EVALUATING YOUR INFECTION PREVENTION AND CONTROL PROGRAM

NIPP... Nipping Infections in the Bud ©

Revised 10.6.16

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## Objectives

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## Objectives

This module's objectives are to:

1. Identify the key components of an infection prevention and control (IPAC) program for nursing homes;
2. Identify Centers for Medicare and Medicaid Services (CMS) updated regulatory requirements for infection prevention and control; and
3. Discuss three methods to evaluate your IPAC program.

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4 CMS Infection Prevention Regulations

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5 CMS Requirements

- Phased approach
  - Phase 1 effective November 28, 2016
  - Phase 2 effective November 28, 2017
    - Infection prevention and control plan
    - Facility assessment
    - Antibiotic stewardship
  - Phase 3 effective November 28, 2019
    - Infection preventionist

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Infection Control § 483.80

- The facility must establish and maintain an infection prevention and control program designed to provide a safe, sanitary and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.

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### Infection Control § 483.80

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Infection prevention and control program (IPCP) includes a system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases

- Covers all residents, staff, volunteers, visitors, and other individuals providing services under a contractual arrangement
- Follows accepted national standards
- Based on facility assessment

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### Policies and Procedures

“The facility must develop and implement written policies and procedures for the provision of infection prevention and control. The facility administration and medical director should ensure that current standards of practice based on recognized guidelines are incorporated in the resident care policies and procedure.”

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### Policies and Procedures

- Based on evidence based guidelines
  - Centers for Disease Control and Prevention
  - Association for Professionals in Infection Control
  - Society for Healthcare Epidemiology of America (SHEA)
- Ensure compliance with regulatory and accreditation standards
  - Centers for Medicare & Medicaid Services
  - Joint Commission

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## Guidelines

- CDC Guidelines
  - Hand hygiene
  - Isolation precautions
  - Disinfection and sterilization
  - Environmental infection control
  - Multi-drug resistant organisms
  - Catheter-associated UTI
  - Intravascular catheter-related infection

[www.cdc.gov/hai](http://www.cdc.gov/hai) and click on "library of infection control guidelines"

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## Guidelines

- CDC Guidelines
  - Carbapenem-resistant Enterobacteriaceae (CRE) Prevention Toolkit
  - Pneumonia prevention
  - Infection control in healthcare workers
  - Management of occupational exposures to HBV, HCV, and HIV and recommendations for post-exposure prophylaxis
  - Preventing the transmission of Mycobacterium tuberculosis in health-care settings

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## Guidelines

- American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)
  - Water management plan



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### Evidence-based Practice

- American Journal of Infection Control
- Infection Control & Hospital Epidemiology
- Journal of American Medical Association
- American Journal of Public Health
- Journal of Clinical Microbiology
- Clinical Infectious Disease
- New England Journal of Medicine
- Lancet

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### Infection Control § 483.80

Policies and Procedures

- A system of surveillance designed to identify possible communicable disease or infections before it can spread to other persons in the facility
  - Data collection tool
  - System for early detection and management of infectious, symptomatic resident (e.g. Incorporate into resident's baseline care plan)
  - Communicate resident communicable infection status at time of transfer
  - Process and outcome surveillance

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### Infection Control § 483.80

Policies and procedures

- When and to whom possible incidents of communicable disease or infections should be reported
- Which communicable diseases are reportable to local/state public health authorities
- Standard and transmission-based precautions to be followed to prevent spread of infections
  - Respiratory etiquette

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### Infection Control § 483.80

- Policies and procedures
  - When and how isolation should be used for a resident
  - The circumstances under which the facility must prohibit employees with a communicable disease or infected skin lesions from direct contact with residents or their food, if the contact is likely to transmit the disease
  - Hand hygiene procedures to be followed by staff involved in direct resident contact

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### Policies and Procedures – Transmission-based Precautions

- In addition to standard precautions
- Identify type and duration of precautions (i.e. contact, droplet)
- Isolation should be the least restrictive possible for the resident under the circumstances
- Criteria for private room, cohorting, and or when resident may share room based on risk factors
- Identify type of precautions and PPE required
  - Use of masks on residents with new respiratory symptoms
- Signage/communication of precautions

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### Policies and Procedures - Linens

- Personnel must handle, store, process, and transport linens so as to prevent the spread of infection.
- Handle all laundry as potentially contaminated according to standard precautions.
  - **No** special precautions or categorizing for linens from transmission-based precautions room is required.
  - Clean linens must be transported, loaded, and unloaded in a way that protects the linen from dust and soil.

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**Policies and Procedures – Resident Care Activities**

- Accessing vascular devices including peripheral and central venous catheters (if applicable)
- Safe medication administration
- Insertion and maintenance of indwelling urinary catheters
- Wound care and dressing changes
- Finger sticks and point of care testing

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**Policies and Procedures – Environmental Cleaning and Disinfection**

- Address routine cleaning and disinfection of high touch surfaces in common areas, resident rooms, and at the time of discharge
- Privacy curtains
- Frequency of cleaning
- Specify who is responsible for cleaning what
- Type of product(s) that will be used (low vs intermediate level disinfectant) and on what surfaces
- Resident care equipment

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**Infection Control § 483.80**

- Pneumococcal and influenza immunizations
  - Each resident/resident representative is educated regarding benefits of and potential side effects of influenza and pneumococcal immunization
  - Each resident is offered an influenza immunization October 1 – March 31
  - Each resident is offered pneumococcal immunization, unless resident is medically contraindicated or already immunized

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### Infection Control § 483.80

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- Pneumococcal and influenza immunizations cont'd
  - Resident/resident representative has opportunity to refuse influenza and pneumococcal immunization
  - Resident medical record includes documentation of the following:
    - Education (as described above)
    - Whether or not the resident received influenza and or pneumococcal immunization and if not, why (i.e. contraindication, refusal)

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### Policies and Procedures – Occupational Health

- Reporting of staff illnesses and following work restrictions
- Prohibiting contact with residents and their food when have potentially communicable disease or infected skin lesions
- Assessing risks for TB
- Monitoring and evaluating for clusters or outbreaks of illness among staff
- Implement exposure control plan

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### Infection Control § 483.80

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- The facility is to review its IPCP annually and update the program as necessary
  - Based on facility assessment (§483.70 (e))
    - Resources for daily and emergency operations
    - Includes a facility and community based assessment with all-hazards approach
    - Risk for MDRO, TB, and Influenza
- The facility is to establish and maintain a system for recording incidents identified under the facility's IPCP and the corrective actions taken by the facility.

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### IPCP Umbrella

- Programs, systems, and plans within the IPCP
  - Antibiotic stewardship program
  - Employee/occupational health
  - Education and training program
  - Infection prevention and control plan
  - Surveillance System
  - Tuberculosis assessment and screening
  - Water management program



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### Infection Prevention & Control Plan

- Goals and objectives
- Priority focus areas
- Based on surveillance data
- Based on facility assessment results
- Updated at least annually
- Program evaluation

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### System for Recording Incidents

- Identify, record, and investigate incidents under the infection prevention and control program
  - Incidents may equal failures in infection prevention and control practices
  - Outbreak detection and response
- Develop and implement corrective action

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### System for Recording Incidents

- Failures reported and reviewed by QAPI
- Monitor effectiveness of implemented changes
- Methods for feedback to appropriate individuals involved in the failed practices

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### Infection Control § 483.80

- Antibiotic Stewardship
  - An antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use



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### F881 Stated Intent

- Intent is for facility to:
- Develop and implement protocols to optimize the treatment of infections by ensuring that residents who require an antibiotic, are prescribed the appropriate antibiotic;
  - Reduce the risk of adverse events, including the development of antibiotic-resistant organisms, from unnecessary or inappropriate antibiotic use; and
  - Develop, promote, and implement a facility-wide system to monitor the use of antibiotics.

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### Infection Control § 483.80

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- Designate one or more individuals as the Infection Preventionist(s)(IP) who are responsible for the IPCP
- Have primary professional training in nursing, medical technology, microbiology, epidemiology, or other related field
  - Be qualified by education, training, experience, or certification
  - Work at least part-time at the facility
    - Have completed specialized training in infection prevention and control
  - IP must be a member of the facility's QAPI committee

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### Competency Domains for Infection Preventionist

- Association for Professionals in Infection Control (APIC) and Certification Board for Infection Control (CBIC)
  - Identification of infectious disease processes
  - Surveillance and epidemiologic investigation
  - Preventing and controlling the transmission of infectious agents
  - Leadership and program management
  - Performance improvement and implementation science
  - Employee/occupational health
  - Environment of care
  - Cleaning, disinfection, sterilization, asepsis

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### Evaluation

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What is Evaluation?

STANDARDS  
SYSTEMATIC  
MEASUREMENT  
FUNCTION  
VALUE  
ASSESSMENT  
OBJECTIVE

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What do you want to evaluate?

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Methods

- Qualitative
  - Comparing and contrasting
  - What is the value added?
- Quantitative
  - Measurement
  - How many?
  - What were the outcomes?
- Mixed
  - Combination of qualitative and quantitative

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### Qualitative Evaluation

- Gap analysis
  - Summation
  - Compare and contrast
- Direct observation
  - Can staff demonstrate competency?
- Focus group/staff survey
  - Is blood glucose monitoring process efficient?

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### Gap Analysis

- Comparison of current state to desired state
    - Regulations
    - Guidelines for program components
  - Gap analysis tools
    - Checklist
    - CDC Infection Prevention and Control Assessment Tool for Long-term Care Facilities
- <https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html>

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### CDC IPAC Assessment Tool

- Domains for Gap Assessment
- Program infrastructure
  - Healthcare personnel and resident safety
  - Surveillance and disease reporting
  - Hand hygiene
  - Personal protective equipment
  - Respiratory/cough etiquette
  - Injection safety and point of care testing
  - Environmental Cleaning

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### Infrastructure

- Designated person responsible for IPAC program and person has received training in infection prevention and control
- Process for reviewing surveillance data and infection prevention activities
- Written policies and procedures based on evidence-based practice
- Review process for policies and procedures, at least annually and updated as needed
- Written plan for emergency preparedness (i.e. pandemic flu)

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### Healthcare Personnel Safety

- Work exclusion policies for staff that do not penalize with loss of wages, benefits, or job status
- Facility educates staff on prompt reporting of signs and symptoms of illness
- Baseline TB screening for all new personnel
- TB risk assessment and requires TB screening if indicated
- Hepatitis B vaccination to all personnel who may be exposed

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### Healthcare Personnel Safety

- Provision of influenza vaccination annually to all personnel
- Maintains written records of influenza vaccination from the most recent flu season
- Exposure control plan (i.e. blood borne pathogens)
- Personnel trained on how to manage a blood borne pathogen exposure at the time of employment and annually thereafter

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## Resident Safety

- Written policy to assess TB risk and provide screening to residents on admission
- Documentation of resident immunization status for pneumococcal vaccination at time of admission
- Facility offers annual influenza vaccination to residents

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## Surveillance

- Written procedures to identify potentially infectious persons at the time of admission
- System for notifying infection prevention coordinator when antibiotic-resistant organisms or *C. difficile* are reported by clinical laboratory
- Written surveillance plan
- System to follow-up on clinical information when residents are transferred to acute care hospital for management of infection

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## Disease Reporting

- Written plan for outbreak response
  - Includes definition, surveillance procedures, containment procedures, and list of syndromes or pathogens for which monitoring is performed
- Current list of diseases reportable to public health
- Facility can provide point of contact at the local or state health department for assistance with outbreak response

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### Hand Hygiene

- Policies promote preferential use of alcohol based hand rub (ABHR) over soap and water in most clinical situations
- Personnel trained and competency validated at time of employment and at least annually thereafter
- Facility monitors adherence and provides feedback to staff on performance
- Hand hygiene supplies are readily accessible

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### Personal Protective Equipment

- Policy on standard precautions which includes selection and use of personal protective equipment (PPE)
- Policy on transmission based precautions and which specific PPE should be used
- Personnel receive job specific training and competency validation on proper PPE use at time of employment and annually thereafter
- Facility monitors adherence to PPE use

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### Personal Protective Equipment

- Facility provides feedback to staff regarding their PPE use
- Supplies necessary for adherence to proper PPE use are readily available at point of use

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### Respiratory Hygiene/Cough Etiquette

- Signs and supplies to support respiratory hygiene
- Facility provides resources to perform hand hygiene near the entrance and in common areas
- Facility offers facemasks to symptomatic persons upon entry to the building
- Facility educates family and visitors to notify staff and take precautions if they are symptomatic during visit
- Personnel receive education on the importance of respiratory hygiene

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### Antibiotic Stewardship

- Leadership support and facility has identified individuals responsible for leading stewardship activities
- Facility has access to individuals with antibiotic prescribing expertise (e.g. ID trained physician or pharmacist)
- Written policies on antibiotic prescribing
- Facility has implemented practices to improve antibiotic use
- Facility has a report summarizing antibiotic use from pharmacy data created within the last 6 months

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### Antibiotic Stewardship

- Facility has laboratory report summarizing antibiotic resistance (i.e. antibiogram)
- Facility provides clinical prescribers with feedback about their antibiotic prescribing practices
- Facility has provided training on antibiotic use to all nursing staff and clinical providers with privileges within the last 12 months

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### Injection Safety and Point of Care Testing

- Policy on injection safety including protocols for performing point of care testing
- Personnel training and competency validated within the last 12 months
- Facility routinely audits/monitors adherence to policy and procedures for point of care testing
- Facility provides feedback to staff regarding performance

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### Injection Safety and Point of Care Testing

- Supplies necessary for adherence to safe injection practices are readily accessible
- Policies and procedures to track personnel and access to controlled substances

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### Environmental Cleaning & Disinfection

- Policies and procedures
  - Routine and terminal cleaning of resident rooms
  - Cleaning and disinfection of rooms with residents on precautions for *C. difficile*
  - Cleaning of high-touch surfaces in common areas
  - Shared medical equipment
  - Reusable medical devices
- Staff are trained and competency validated upon hire and annually thereafter

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### Environmental Cleaning & Disinfection

- Facility audits and monitors compliance with procedures
- Facility provides feedback to staff on performance
- Appropriate supplies are accessible
  - Products with EPA label effective against *C. difficile*

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### Gap Analysis

- Summarize findings
  - Gaps in current state in comparison to desired state
- Identify opportunities for improve
- Review with quality improvement committee
- Develop action to plan to address gaps
- Implement plan
- Re-assess

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### Direct Observation

- Is what I think is happening really happening?
- Validate staff competency
  - Checklist with process steps and observe staff performing steps of process
    - How to correctly apply alcohol based hand rub
    - How to properly remove gloves
    - How to access central venous catheter
    - How to perform pericare

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### Systems for Staff Feedback

- Focus groups
- Interviews
- Surveys
- Desired feedback
  - How efficient is the process (i.e. blood glucose monitoring)?
  - What are the barriers to adherence to procedure?
  - What is needed to make compliance easier?

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### Quantitative Evaluation

- Surveillance data
  - Is transmission occurring in my facility?
  - How many residents had healthcare-onset *C. difficile* infection last year?
  - Are rates increasing, decreasing, or stable?
- Process measures
  - Compliance with hand hygiene
  - Compliance with using personal protective equipment

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### Process Measures

- Measurable objectives
- By December 31, 2019, staff perform hand hygiene 95% of the time when entering and exiting resident rooms.
  - By December 31, 2019, increase compliance with hand hygiene by 50% from baseline.
  - Residents with urinary catheters will be assessed daily for catheter need.

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## Outcome Measures

### Measurable objectives

- 95% of staff will receive the influenza vaccine during the 2019-2020 flu season.
- Decrease *C. difficile* infection rate of < 5/10000 resident days by December 31, 2019.
- To decrease MRSA infections by 5% by December 31, 2019.

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## Qualitative vs Quantitative

### Qualitative

- Correctly donned and doffed PPE

### Quantitative

- Percent compliance with donning and doffing PPE for transmission-based precautions

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## Mixed Methods

- What questions do you want answers to?
  - What is the impact of the program?
  - Is program working?
  - Is it successful?
  - Is it sustainable?
  - What do we need to focus on next year?

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## Planning for Evaluation

- Did you engage stakeholders to ensure support and buy-in?
- How will you know if program is successful?
  - Did the stakeholders define success?
- Did you establish measurable goals and objectives?
- Did you identify methodologies for tracking necessary information to know if you have met goals and objectives?

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## Evaluation

- How will the data be analyzed?
- How will data be communicated?
- Who will data be communicated to and in what format?
- Who will review evaluation summary?
- How will findings be used to drive decision making?

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## Activity

Scenario 1 – You suspect MRSA is being transmitted in your facility due to lack of hand hygiene. How can you evaluate this?

Scenario 2 – You suspect transmission of *C. difficile* infection in your facility is due to cleaning and disinfection practices. How can you evaluate this?

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### Activity

For your assigned scenario:

- Identify 2 qualitative evaluation methods
  - Identify what needs to be assessed
  - Describe how you will assess
  - Describe how you will document your findings
- Identify 2 quantitative metrics
  - Identify 2 -3 measurable objectives
  - Describe how you will track your objectives and document findings

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### Summary

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### Summary

- Nursing homes must implement comprehensive infection prevention and control programs that are compliant with evidence based guidelines.
- Conducting a comprehensive evaluation of an infection prevention and control program requires the use of both qualitative and quantitative methods.
- Planning for evaluation as part of program development and process improvement initiatives is key to ensuring measurable results that can be documented, communicated to leaders, and used to drive decision making.

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**THANK YOU**



**EVALUATING YOUR INFECTION PREVENTION  
AND CONTROL PROGRAM**

We thank you for your time today.  
To learn more about this or to discuss services please contact  
A.C. Burke, MA, CIC at [ac@rbhealthpartners.com](mailto:ac@rbhealthpartners.com) or  
Robin A. Bleier at [robin@rbhealthpartners.com](mailto:robin@rbhealthpartners.com)

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