

COVID-19 Lessons Learned 2.24.2021

Nevada Health Care Association and Center for Assisted Living



COVID-19 Lessons Learned

Harmony Healthcare International (HHI) "HHI **C.A.R.E.S. a**bout Care"





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About Kris

Kris Mastrangelo OTR/L, LNHA, MBA President and CEO

Owns and operates Harmony Healthcare International (HHI) a Nationally recognized, premier Healthcare Consulting firm specializing in C.A.R.E.S. There are no nonfinancial disclosures to share.

"HHI C.A.R.E.S. About Care."







Our Process



- Prescribed medical record review process that encompasses HHI's core business
- HHI Regional Specialists provide expertise through teaching and training and an extensive chart audit process in order to ensure:
 - MDS Accuracy
 - MDS Supporting Documentation
 - Billing Accuracy
 - Nursing Documentation
 - Therapy Documentation
 - Clinically Appropriate Care





HHI Services and Plans

Gold C.A.R.E.S. 2 Year Service Plan

Platinum C.A.R.E.S. 3 Year Service Plan



List of HHI Services PDPM Training and Audits | Medicare | Compliance | Rehab Program Development | Seminars | MMQ Audits | Mock RAC Audits | Rehab Certification | Mock Health Inspection Survey | MDS Competency | Talent Management | Denials Management | Compliance Certification | Clinically Appropriate Stay | QAPI | QIS | Medicare Part B Program | MDSC Mentor Program | Case Mix Consulting | Professional Development | Leadership Trainings | Regulatory and Survey Assistance | Five Star | PBJ | Quality Measures | Analysis | Staff Training | Infection Control and More!

> Silver C.A.R.E.S. 1 Year Service Plan

A La C.A.R.E.S. Customized Service Plan





Our Senior HHI Specialists



- Founded in 2001
- Privately owned and operated
- Ranked among Inc. Magazine's top 5,000 fastest growing private companies in America <u>three years in a row</u>
- Active monthly contracts in 24 states
- Over 1,000 Skilled Nursing Facilities serviced
- Over 3,000 Clinicians Certified on the MDS





https://www.harmonyhealthcare.com/harmonyhelp

Live Support Available 8:00 a.m. – 5:00 p.m. EST



HarmonyHelp

With HarmonyHelp, Harmony Healthcare International (HHI) provides an invaluable resource for the entire interdisciplinary team. Imagine having questions answered by a HHI Specialist within minutes of the inquiry. Fill out the form on the right to learn more about HarmonyHelp and our various Service Plans. The Knowledge Center is loaded with information that will assist with your daily responsibilities at your facility. This self-help site is broken up into 5 Sections:

Manuals | Tools | C.A.R.E.S. Community | Hot Topics | FAQ (Frequently Asked Questions)



Month	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17
Total Part A Revenue	\$189,711.70	\$202,597.35	\$228,482.48	\$176,144.00	\$192,332.99	\$148,861.18
Rehab Revenue	\$181,514.58	\$201,631.41	\$227,975.42	\$175,546.71	\$190,248.65	\$146,559,14
Therapy Portion	\$80,465.58	\$83,667.77	\$100,444.39	\$79,055.93	\$86,172.60	\$67,534.29
% Therapy Portion	42.4%	41.3%	44.0%	44.9%	44.8%	6.45
N Therapy of Total Revenue	95.7%	99.5%	99.8N	99.7%	98.9%	98.5%
% Therapy RUG Days (P)	93.9%	99.4%	99.6%	99.5%	98.6%	97.5%
Part A Rate	\$442.22	\$434,76	\$454.40	\$465.99	\$453.62	\$462.30
% of Max Rate	61.9%	60.9%	65.0%	65.3%	63.5%	64.8%
ADC	14.30	15.03	15.87	13.50	13.68	10.73





Complimentary HHI Offerings

- PDPM Revenue and Risk Analysis
- Medicare Part A Revenue and Risk Analysis
- Five-Star Quality Measure Points Analysis
- PEPPER Analysis





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HHI C.A.R.E.S. About Care

harmony21 is the nation's leading interdisciplinary long-term post-acute care symposium

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Educational Activity Completion

Requirements for Successful Completion

1 contact hour will be awarded for this continuing nursing education activity. Criteria for successful completion includes:

Attendance for 100% of the 2-day course or individual, 3-hour module (2- and 3-day trainings require at least 80% attendance). Contact hours will be awarded for time

Must complete **post course exam within 2 weeks** of the course and course/teacher evaluation.

Clearly demonstrate the learning outcome of the program.

Participants will receive a certificate of completion immediately following completing the above requirements.



CEU Disclosure

Approval of this continuing education activity does not imply endorsement by ANCC (American Nurses Credentialing Center) of any commercial products or services.

Approval of this continuing education activity does not imply endorsement by AOTA and NAB of any commercial products or services.

Harmony Healthcare International (HHI) is accredited as a provider of continuing nursing education by the **American Nurses Credentialing Center's Commission on Accreditation**.

Harmony Healthcare International (HHI) is accredited as a provider of continuing education by the American Occupational Therapy Association.

Harmony Healthcare International (HHI) is accredited as a provider of continuing education by the National Association of Long-Term Care Associations Boards.



Learning Objectives

- 1. Identify the **eight core elements** of **infection control**
- 2. Identify examples of effective strategies for communication, implementing successful changes to improve teamwork, quality of care, and avoid citations
- 3. Understand and articulate systems to eliminate preventable harm



- "Ensure staff working more than one shift in a row are screened between shifts. It is possible to develop symptoms during the shift without being aware given the intensity of care being provided by the staff. Consider screening all staff after their shift and working day to identify symptoms to assist with proactive staffing management."
- "Provide good hand hygiene to residents prior to meals. Place an alcohol wipe on each tray, use the alcohol wipe for all of the residents prior to eating or being fed their meal. Track the use of the alcohol wipes to determine compliance and develop a QAPI program for resident hand hygiene prior to meals."



- **"SPEAK UP!** Other staff not donning and doffing PPE correctly, not enough PPE, N95 masks not fit tested? Now is not the time to go with the flow, alert someone to your concerns, they may not be aware that the situation exists and it may be putting you and the residents at risk."
- "Establish an efficient tracking system for the dates of testing, results and room moves, along with a daily census sheet by room number. Keep all this in a separate binder that is easy to get to."



• "Give as much support and love as you can to your residents. They will be frightened and confused, especially if they are moved around in the facility during an outbreak. If they are moved to a different unit, make sure they have a **few personal items** that are very comforting and orienting to them. Assess them in their new room for tripping hazards and help orient them to the layout, especially if they have vision or cognitive impairments. If they had a particular type of siderail in their prior room, make sure they have the same kind available for the new bed. Help them learn the layout of the new room, especially getting from the bed to the bathroom and back. Make sure the tv is in good working order."



- "Support your teammates and let them support you. Lean on each other. An outbreak is very difficult to go through, especially if there are any deaths."
- "Make sure you take time away from the COVID unit or facility, just to get a break from it. Your mental and physical health will depend on this. Don't hesitate to reach out to support staff for help if you are struggling. You are not alone."



- "When you are **faced with something new**, like this novel virus, and guidance and advice seems to be coming from everywhere and sometimes it seems contradictory, **do what you know to do**."
- "Until the modes of transmission are understood, follow the most stringent precautions that you can."



- "If you're set up for airborne precautions, do it. If not, enhance droplet measures without leaving out the basics. Masks are important, but they are not the foundation of precautions. Each escalation over standard precautions is an enhancement. We don't stop washing our hands because masks are going to save us."
- "Health care facilities are under more scrutiny through infection control survey than they have ever been. A strong facility usually sees their surveyors once a year for annual, and the rare complaint survey that merits an onsite survey. Now, many facilities are seeing surveyors twice in one week during an outbreak."



- "Why haven't the local health departments followed suit? Instead of closing down restaurants, why haven't they provided better guidelines and more oversight? We can pay people who didn't make \$600 per week to begin with \$600 + their standard unemployment to stay home, but we use some of that money to pay for basic infection prevention training and send some of these "non-essential" workers out to survey these establishments?"
- "There is a great opportunity to provide better infection prevention information to the public, to the worker and stop with the "feel good" measures that protect nobody from anything."



- "The plastic cover on the credit card machine doesn't protect people from anything by itself. It protects the machine from moisture damage when the staff sanitizes it between every customer, but that isn't happening. Use a faster acting product.
 - Contact time for Lysol is 2 minutes.
 - Bleach solution is 5minutes.
 - 70% alcohol-based sanitizer is 30 seconds.

What a difference choice of product makes. If restaurants used the alcohol product, the table would be dry and ready for the next guest in 30 seconds. **Product choice directly affects compliance**."



"I know that data is supporting that most sick people are inhaling the virus, so it seems like masks trump all. But, it really doesn't. The route into the body and how much virus is introduced in the initial exposure makes a difference. One measure is not more important than the others. Masks enhance, not replace standard precautions."



- "The initial exposure the viral inoculum usually has a direct effect on severity of illness. Suddenly, having all these asymptomatic people walking around makes sense, doesn't it?
- And that's great for **herd immunity**, right? People getting some immunity built up with no symptoms? Except...**they can spread the virus**. They take dad to his doctor's appointment. Neither of them wears a mask in the car. And they cough, or sneeze, or laugh, and dad inhales a larger viral inoculum...and then goes back to the nursing home."



- "It is so important to live for today, while also taking time to look at the past and future."
- "The necessity for self-care has never been more evident than now, both physically and mentally."
- "Follow federal, state, and local guidelines, don't apologize for change."
- "Communicate with honesty, empathy, authenticity, and consistency."



"One of the things we implemented early on that has worked well for us is our contact tracing sheets. We have the residents listed on the sheet for each of our communities and at the end of every shift, staff note the residents they spent at least 10 minutes with during their shift. Staff also write down the names of other staff members they were within 6 feet for 10 minutes or more. As employees leave for the day, they file the sheets under the letter of their last name in a file folder located at the exit door. When we have had a staff **member test positive**, we have been able to pull up these sheets and conduct our **contact tracing immediately** rather than waiting to contact the employee. Also, in the heat of the moment, staff have a hard time remembering who they took care of and the form helps them to recall."



- "What I have learned about COVID
 - It is not predictable
 - Can have it twice
 - Hand sanitizer /Mask /social distancing is effective
 - Isolation to one unit/floor, with designated staff member to the Covid unit only is effective
 - Cleaning and disinfecting is critical
 - The practices/guidelines by the federal government/CDC /Health department are ever changing
 - It is important to have resources like Harmony (HHI) to assist with the mountain of changes
 - Harmony (HHI) has helped greatly with the process of coding, 3-day waivers and keeping the facility abreast of changes as they occur"



Leadership Responsibilities



Leadership Responsibilities Visibility

- Be there, offer direction and guidance
- Be supportive
- Interact with managers and staff
- Answer questions, or if unable, it is ok to say "I don't know, but I will find out"



Leadership Responsibilities Knowledge

- There is no playbook for any of us, **don't expect to have all the answers**
- You must keep on top of what is going on
- It is ok to delegate responsibility for researching daily updates on COVID-19 but the Leader has to be fully informed about frequent changes to regulations and requirements
- Direction should come **from the top**
- Try to think ahead as to what is coming next



Leadership Responsibilities Messaging

- The leader must communicate often to residents, to staff and to resident representatives
- Be consistent
 - Give regular updates, even more than required, if possible
- Be honest
 - The situation is evolving, so the information and directives may change, frequently
- Be Open
 - To be otherwise, reduces credibility



Leadership Responsibilities Team

- Take this opportunity to build your management team and other key staff members
- **Empower** them to do more to help the organization
- **Broaden** their responsibilities
 - Think of all the required reporting
 - You must have **back-up** for all state and federal reporting requirements


Leadership Responsibilities Self Preservation

- Take care of yourself
- It is not only your staff that will be stressed
- You are no good to them if you are stressed out
- Find **someone you can vent to**, possibly another Administrator in the same boat



Learning Objectives

- 1. Identify the 8 elements of Infection Control
- 2. State what is meant by proactive infection control
- 3. Identify the difference between Standard, Contract and Airborne Precautions



Infection Control Program Purpose

 To provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections



Infection Control Impact of Infections in Nursing Homes

- There are approximately **15,600** Centers for Medicare & Medicaid Services (CMS)- certified nursing homes in United States
 - Provide care to more than 3 million Americans each year
- Between 1 and 3 million serious infections occur in nursing homes annually
 - Contribute to hospitalization, morbidity, mortality, and increased healthcare expenditures



Infection Control

Susceptibility of Nursing Home Residents to Infection

• Age

 With advancing age, the immune system's ability to protect against infections may begin to decline. For instance, the protective effect generated by a vaccine on the immune system might decrease

• Invasive Devices

 The presence of invasive medical devices, such as urinary catheters or central venous catheters, provide a site for pathogens to enter the body

• Functional Impairment

- Functional impairment can impede the ability to perform basic hygiene activities, such as bathing and oral care
- Communal Living and Group Activities
 - Communal, or shared, residence and group activities increase opportunities for the transmission of pathogens, such as influenza and norovirus



Infection Control

Susceptibility of Nursing Home Residents to Infection

- Medications
 - Certain medications may increase susceptibility to infection. For example, steroids can affect the function of white blood cells, which are cells in the body that respond to infection
- Comorbid Conditions and Chronic Diseases
 - Comorbid conditions and chronic diseases can predispose residents to site-specific infections. For example, Chronic Obstructive Pulmonary Disease (COPD), can cause changes in lung function that might predispose a resident to pneumonia



Infection Control Susceptibility of Nursing Home Residents to Infection

- Best practice is Infection Prevention
- All disease processes are easier to prevent than to manage control of the disease
- This is true of heart disease, diabetes and obesity



Infection Control Skilling Isolation and Quarantine



Infection Control Core Elements Introduction Skilling Isolation and Quarantine

 According to the CDC, isolation is for people who are ill, while quarantine applies to people who have been in the presence of a disease but have not necessarily become sick themselves. Per the CDC,

"Isolation separates sick people with a contagious disease from people who are not sick."

- Isolation is for patients with symptoms and or positive tests
- Quarantine is for patients exposed but exhibits no symptoms



Infection Control Core Elements Introduction Skilling Isolation

- Isolation (Z29.0) and COVID-19 (U07.1)
- Coding isolation for a patient with an active infectious disease places them into an ES1 nursing category under both Medicare Part A and certain Medicaid Case Mix states



Infection Control Core Elements Introduction Skilling Isolation

To properly code isolation on the MDS, the patient requires:

- Isolation for a minimum of one day
- MD Orders for isolation
- Active Infectious disease ICD-10 coded:
 - On the UB-04 and
 - On the MDS (Section O. and I.)
- All treatments rendered in the patient's room with documentation to support said services are provided at bedside
 - Isolation <u>cannot be coded if the patient is being "co-horted"</u>, meaning rooming with another patient



Infection Control Core Elements Introduction Daily Skilled Documentation

- Skilled (Medicare Part A) Observation and Assessment is Indicated when there is a reasonable probability or possibility for complications or the potential for further acute episodes
- This references conditions where there is a "reasonable probability or possibility" for:
 - Complications
 - Potential for further acute episodes
 - Need to identify and evaluate the need for modification of treatment
 - Evaluation of initiation of additional medical procedures



Infection Control Core Elements Introduction Daily Skilled Documentation

- Daily observations and assessments include but are not limited to, fever, dehydration, septicemia, pneumonia, nutritional risk, weight loss, blood sugar control, impaired cognition, mood, and behavior conditions
- Example of Daily Skilled Documentation
 - "This patient requires daily skilled nursing observation and assessment of signs and symptoms related to exacerbation of COVID-19, pneumonia, and related medical conditions."
- Skilled observation is required until the treatment regimen is essentially stabilized, and the patient is no longer at risk for medical complications



Infection Control Core Elements Introduction Quarantine and Skilled Care

- Although a quarantined patient may not have symptoms, the mere fact the patient was **potentially exposed to COVID-19** warrants daily skilled nursing to observe and assess for signs and symptoms of COVID-19
- Observation and Assessment references conditions where there is a "reasonable probability or possibility" for the nurse to:
 - Evaluate the patient's condition i.e., observe and assess for fever, body aches, loss of appetite,
 - Identify acute episodes, and
 - Identify the need for treatment (modifications)
 - Initiate treatment changes



Infection Control Core Elements Introduction Quarantine and Skilled Care

- In addition, the nurse may provide observation and assessment of signs and symptoms related to:
 - Dehydration,
 - Septicemia,
 - Pneumonia,
 - Nutritional risk,
 - Weight loss,
 - Blood sugar control,
 - Impaired cognition and
 - Mood and behavior conditions



Infection Control Core Elements Introduction Quarantine and Skilled Care

- Nurses need to document the defined assessment on a daily basis
- This may include neurological, respiratory, cardiac, circulatory, pain/sensation, nutritional, gastrointestinal, genitourinary, musculoskeletal, and skin assessments
- In these situations, the Nurse may write:
 - "This patient requires daily skilled nursing observation and assessment of signs and symptoms related to COVID-19."
- Skilled observation is required until the treatment regimen is essentially stabilized



Infection Control Core Elements Introduction Reimbursement Medicare Part A Skilled Care

• The difference in reimbursement for accurately coding **isolation** for a patient with **active infectious disease** in rural Vermont



\$ Impact Isolation COVID-19 (VT) =

\$720.13 - \$585.39 = \$134.74 per day x 100 days = \$13,474



Harmony Healthcare

*Courtesy of Hopforce PDPM Calculator: https://pdpm-calc.com/

Infection Control Core Elements Introduction Reimbursement Medicare Part A Skilled Care

• The difference in reimbursement for accurately coding **isolation** for a patient with **active infectious disease** in urban New York



\$ Impact Isolation COVID-19 (NY) =

\$894.92 - \$700.60 = \$194.32 per day x 100 days = \$19,432





*Courtesy of Hopforce PDPM Calculator: https://pdpm-calc.com/

Infection Control Core Elements Introduction Reimbursement Medicaid Case Mix – D.C.

- In D.C., the coding of isolation also impacts the Medicaid Case Mix Index An ES1 Level for Isolation yields 2.22 CMI
- Conservatively, the CMI Impact Isolation
 COVID-19 = ES1 versus CB2 = 2.22 .95 = 1.27
- When identifying patients who are isolated and quarantined, it is imperative to assess if the condition warrants skilled care
- Currently, each state uses its own Medicaid reimbursement system
- Multiple states are collecting data in preparation for applying the PDPM model



Infection Control Core Elements Introduction PDPM Conversion MDS Collection OBRA Assessments





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- The ICD-10-CM Diagnosis Code is U07.1, Virus Identified
 - U07.1 is a billable/specific ICD-10-CM code that can be used to indicate a diagnosis for reimbursement purposes
 - ICD-10-CM U07.1 is a <u>new 2021 ICD-10-CM code</u> that became effective on October 1, 2020
 - This is the American ICD-10-CM version of U07.1 other international versions of ICD-10 U07.1 may differ



- ICD-10-CM U07.1 is grouped within Diagnostic Related Group(s) (MS-DRG v38.0):
 - 177 Respiratory infections and inflammations with mcc
 - 178 Respiratory infections and inflammations with cc
 - 179 Respiratory infections and inflammations without cc/mcc
 - 791 Prematurity with major problems
 - 793 Full term neonate with major problems
 - 974 HIV with major related condition with mcc
 - 975 HIV with major related condition with cc
 - 976 HIV with major related condition without cc/mcc



- The ICD-10-CM Diagnosis Code is U07.2, Virus NOT Identified
 - Clinically-epidemiologically diagnosed
 - Probable COVID-19
 - Suspected COVID-19
- https://www.who.int/classifications/icd/icd10updates/en/
- 9.29.2020 ICD-10 Update COVID-19
- A set of **additional categories** has been agreed to be able to **document or flag** conditions that occur in the context of COVID-19
- Both, 3 character and 4-character codes have been **defined to respond** to the different levels of coding depth that is in place in **different countries**



Personal history of COVID-19

- U08.9 Personal history of COVID-19, unspecified
- This optional code is used to record an earlier episode of COVID-19, confirmed or probable that influences the person's health status, and the person no longer suffers from COVID-19. This code should not be used for primary mortality tabulation

Post COVID-19 condition

- U09.9 Post COVID-19 condition, unspecified
- This optional code serves to allow the establishment of a link with COVID-19 This code is not to be used in cases that still are presenting COVID-19



Multisystem inflammatory syndrome associated with COVID-19

- U10.9 Multisystem inflammatory syndrome associated with COVID-19, unspecified (Temporarily associated with COVID-19)
- Cytokine storm
- Kawasaki-like syndrome
- Pediatric Inflammatory Multisystem Syndrome (PIMS)
- Multisystem Inflammatory Syndrome in Children (MIS-C)
- Excludes
 - Mucocutaneous lymph node syndrome {Kawasaki} (M30.3)



Infection Control Core Elements Introduction HHI Recommendations

- Educate staff on Skilled Coverage Criteria
- Educate staff on ICD-10 Coding
- Educate staff on Isolation versus Quarantine
- Perform ongoing and retroactive Medical Record Reviews
- All patients should be **reviewed immediately**
- It may not be possible to retroactively correcting any errors



Infection Control Core Elements Introduction Infection Control

- Per the NSVH, the demographics of the age and mortality show that 78.23 % of deaths thus far are 65 years old or older!
 - 65-74 years old 22.02%
 - 75-84 years old 27.92%
 - 85 and older years old 28.29%



Infection Control Core Elements Introduction Infection Control

- Coronavirus is a member of larger **"family of viruses"** called Coronaviruses (which includes the common cold)
- The name is derived from the shape of the virus at the molecular level, it looks like a **"crown"** with projections. Those **spikes** on the virus allow it to stick to human cells and proceed to **take over the normal cellular** structure and then **replicate itself**
- This family of viruses has been around over 50 years
- COVID-19 (SARS-CoV-2) is the 7th coronavirus known to effect humans



Infection Control Core Elements Introduction Infection Control

COVID-19		
Deaths and % Deaths by Age		
Reference: National Vital Statistics System (NVSS)		
	COVID-19	COVID-19
Age	Deaths	% Deaths
Under 1 year	0	0.00%
1 - 4 years	1	0.02%
5 - 14 years	0	0.00%
15 - 24 years	4	0.10%
25 - 34 years	38	0.93%
35 - 44 years	102	2.51%
45 - 54 years	236	5.81%
55 - 64 years	504	12.40%
65 - 74 years	895	22.02%
75 - 84 years	1,135	27.92%
85 years plus	1,150	28.29%
Total	4,065	100.00%

As of 4.8.20, per the CDC, the U.S. has 399,752 cases of COVID-19 totaling 12,827 deaths and a 3.2% mortality

The key takeaway here is that **our nation's seniors (those age 65 and older)** are the most at risk to this disease. Furthermore, the residents of nursing homes have the greatest risk due to their **comorbidities** and **pre-existing medical conditions**



8 Core Elements of Infection Control



Infection Control 8 Core Elements

- 1. Minimize Exposure
- 2. Adhere to Precautions
- 3. Manage Visitor Access and Movement within Facility
- 4. Implement Engineering Controls
- 5. Monitor and Manage III and Exposed Staff
- 6. Train and Educate Staff
- 7. Implement Environmental Infection Control
- 8. Establish Reporting within Facility to Public Health



1. Minimize Exposure





Infection Control Core Elements Minimize Exposure

Minimize Exposure

• Visitation

Move swiftly upon first identified case if not sooner.

New Admissions

Work closely with hospitals, quarantine upon admission

• Employee (Screening)

Temperatures, Symptoms, Staff go to grocery stores and return. Live at facility.

• Resident Outside Appointments

Limit for only essential appointments (Dialysis)





Infection Control Core Elements Minimize Exposure

- The resident should not leave the protection of their isolation room
- That room is the first line of defense to minimize exposure of others to the infection
- There are situations that cannot be rescheduled like dialysis
- Other appointments can usually be postponed





- The decision to delay and appointment needs to be made by the consulting office
- In the case of dialysis, some centers will choose to conduct treatments in hospital dialysis centers where they are better prepared to place the patient in isolation
- You should **never** send an isolation patient out of the building without first notifying the receiving facility and the transport company



1 Infection Control Core Elements Minimize Exposure COVID-19 Infection Control

- S.P.I.C.E
 - -Surveillance
 - -Protection
 - Isolate
 - -Communicate
 - Evaluate




- Pathogens do not care about appearances of safety
- Pathogens are opportunistic organisms looking for a host
- Deviating from and relaxing precautions to minimize exposure just once creates a potential chain of contamination
- Someone must be Patient 0 in every outbreak



- Restrict traffic in an out of the building
- Control what and who is coming into the building
- Limit face to face visitation to compassionate care at end of life, or such things as a visit from an adult child who needs to inform resident of a death in the family, or a child moving to another country. Limit time and location.
- Provide video visiting opportunities such as FaceTime and telephone calls instead of in person visits
- Allow outside visits with 6' of separation, hand hygiene, surfaces sanitized and no physical contact





- Quarantine any resident who has close contact outside the facility for 14 days when they return
- Provide a measure of supervision for the visits. If close contact policies are broken, quarantine the resident for 14 days
- Treat every surface as though it is contaminated until you know it has been effectively sanitized
- Minimize personal exposure through hand hygiene and wearing PPE correctly
- When possible, dedicate staff to work with the same units to avoid cross contamination





- Limit outside items entering the facility, such as food, clothing laundered by family
- Provide staff a changing room so no potentially contaminated uniform leaves the unit and travels through the building
- Screen staff faithfully for signs, symptoms and potential exposure.
- Staff working a split-shift or a double could develop symptoms during their shift, so pre-shift screening should not be skipped for them
- This is especially true if they will be going to another unit for their second shift





- Examine attendance policies to determine if employees are encouraged to work when sick
- The staffing crises so many facilities face exacerbates this situation
- Many buildings already find that poor attendance is a bigger obstacle than hiring staff
- Perhaps one solution that could come from COVID 19 is that facilities begin to analyze the root causes of staffing challenges and attendance obstacles and works towards a viable solution





- Overcoming these challenges is not like delving into a giant, expensive machine and trying to find the one little part that isn't working, and once that one solution is found, all will be well
- It may be a series of attempts and trials and errors, but any progress is better than none
- If we keep doing the same thing, we will keep getting the same results



2. Adhere to Precautions



- Identify Precautions Needed (Most Strict Initially)
- At the first sign of infection, a preliminary diagnosis needs to be made and the patient placed in precautions
- If the resident develops a spontaneously draining wound not associated with a surgical wound or trauma you might be thinking it could be MRSA or other infectious process





- Place the resident on contact precautions until you have microbiological confirmation of the organism
- It may take 3 days for that test result but think of the number of opportunities of cross contamination to other residents and staff members
- When in doubt, isolate stop the chain on contamination





- Contact Precautions
 - Staff don gloves and isolation gown before contact with the resident and/or his/her environment
- Droplet Precautions
 - Staff don a facemask within six feet of a resident
- Airborne Precautions
 - Staff don an N95 or higher level respirator prior to room entry of a resident



- Undiagnosed Respiratory Infection
 - Staff follow Standard, Contact, and Droplet Precautions (i.e., facemask, gloves, isolation gown) with eye protection when caring for a resident unless the suspected diagnosis requires Airborne Precautions (e.g., tuberculosis)



- Known or Suspected COVID-19
 - Staff wear gloves, isolation gown, eye protection and an N95 or higherlevel respirator if available
 - A facemask is an acceptable alternative if a respirator is not available.
 - Additionally, if there are COVID-19 cases in the facility or sustained community transmission, staff implement **universal use of facemasks** while in the facility (based on availability)
 - When COVID-19 is identified in the facility, staff wear all recommended PPE (i.e., gloves, gown, eye protection and respirator or facemask) for the care of all residents on the unit (or facility-wide based on the location of affected residents), regardless of symptoms (based on availability)



- COVID-19 most commonly spreads during close contact
 - People who are physically near (within 6 feet) a person with COVID-19 or have direct contact with that person are at greatest risk of infection
 - When people with COVID-19 cough, sneeze, sing, talk, or breathe they
 produce respiratory droplets. These droplets can range in size from larger
 droplets (some of which are visible) to smaller droplets. Small droplets can
 also form particles when they dry very quickly in the airstream
 - Infections occur mainly through exposure to <u>respiratory droplets</u> when a person is in close contact with someone who has COVID-19



- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth
- As the respiratory droplets travel further from the person with COVID-19, the concentration of these droplets decreases. Larger droplets fall out of the air due to gravity. Smaller droplets and particles spread apart in the air
- With passing time, the amount of infectious virus in respiratory droplets also decreases



- There is evidence that <u>under certain conditions</u>, people with COVID-19 seem to have infected others who were more than 6 feet away. These transmissions occurred within enclosed spaces that had inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising
 - Under these circumstances, scientists believe that the amount of infectious smaller droplet and particles produced by the people with COVID-19 became concentrated enough to spread the virus to other people. The people who were infected were in the same space during the same time or shortly after the person with COVID-19 had left
- Available data indicate that it is <u>much more common</u> for the virus that causes COVID-19 to spread through close contact with a person who has COVID-19 than through airborne transmission



- COVID-19 spreads less commonly through contact with contaminated surfaces
 - Respiratory droplets can also land on surfaces and objects. It is possible that a person could get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes.
 - Spread from touching surfaces is not thought to be a common way that COVID-19 spreads



- COVID-19 rarely spreads between people and animals
 - It appears that the virus that causes COVID-19 can spread from people to animals in some situations. CDC is aware of a small number of pets worldwide, including cats and dogs, reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19
 - At this time, the risk of COVID-19 spreading **from animals to people** is considered to **be low**



- Protect yourself and others
 - The best way to prevent illness is to avoid being exposed to this virus. You can take steps to slow the spread
 - Stay at least 6 feet away from others, whenever possible. This is very important in preventing the spread of COVID-19
 - Cover your mouth and nose with a mask when around others. This helps reduce the risk of spread both by close contact and by airborne transmission
 - Wash your hands often with soap and water. If soap and water are not available, use a hand sanitizer that contains at least 60% alcohol



- Avoid crowded indoor spaces and ensure indoor spaces are properly ventilated by bringing in outdoor air as much as possible. In general, being outdoors and in spaces with good ventilation reduces the risk of exposure to infectious respiratory droplets
- Stay home and isolate from others when sick
- Routinely clean and disinfect frequently touched surfaces
- Pandemics can be stressful, especially when you are staying away from others. During this time, it's important to maintain social connections and care for your mental health



- Aerosol
 - Aerosol is a catch-all term for any solid or liquid particle so tiny and lightweight it can become suspended in air and float.
 Smoke and dust are examples. Some viruses can become aerosols, making airborne transmission possible
 - The World Health Organization defines aerosol transmission, also known as <u>airborne transmission</u>, as "very small droplets ... that are able to stay suspended in the air for longer periods of time."



Infection Control Core Elements Adhere to Precautions

• Droplets

- Droplets are large mucus or saliva particles heavier than air that fall toward the ground as soon as they're expelled, and droplet transmission typically occurs when a droplet containing a virus comes in contact with another person's eyes, nose or mouth. An example might be a loud-talking person whose droplets make contact with your face
- According to the WHO, current evidence suggests that close-contact, person-to-person transmission is the primary way COVID-19 spreads, as droplets "are released from the mouth or nose when an infected person coughs, sneezes, speaks or sings, for example." People in close contact with an infected person can become infected "when those infectious droplets get into their mouth, nose or eyes."



- How has our understanding of COVID-19 changed over time?
 - COVID-19 originally was thought to be spread only by droplet transmission 6-foot social distancing guidelines were based on research that showed droplet transmission occurred most easily at such short distances. Scientists still believe this is the primary way coronavirus spreads person to person
 - But more evidence is mounting that the virus could become an aerosol, leading to airborne spread. Although many scientists now believe airborne transmission is possible, many agree the majority of infections happen when people are crowded close together, exchanging the heavier droplets.





- The WHO updated its online COVID-19 guidance in July 2020 to include information on airborne transmission.
- The CDC Centers for Disease Control and Prevention followed suit on September 18th, 2020 but retracted the information a few days later, stating it was posted in error.
- The CDC has yet to issue an update on airborne transmission
- For many scientists, the CDC's confusing, disjointed stance on airborne transmission has been discouraging. The scientific community decried the **mixed messaging**, emphasizing the need for clear, unified public information
- According to Schaffner, with clearer guidance from the CDC, businesses operating indoor spaces can better prepare by taking precautions, such as adding new ventilation systems and limiting crowds, to defend against possible transmission



- Contact Precautions
 - Staff don gloves and isolation gown before contact with the resident and/or his/her environment
- Droplet Precautions
 - Staff don a facemask within six feet of a resident
- Airborne Precautions (Aerosol)
 - Staff don an N95 or higher-level respirator prior to room entry of a resident





- Undiagnosed Respiratory Infection
 - Staff follow Standard, Contact, and Droplet Precautions (i.e., facemask, gloves, isolation gown) with eye protection when caring for a resident unless the suspected diagnosis requires Airborne Precautions (e.g., tuberculosis)



- Known or Suspected COVID-19
 - Staff wear gloves, isolation gown, eye protection and an N95 or higher-level respirator if available
 - A facemask is an acceptable alternative if a respirator is not available
 - Additionally, if there are COVID-19 cases in the facility or sustained community transmission, staff implement universal use of facemasks while in the facility (based on availability)





- Known or Suspected COVID-19
 - When COVID-19 is identified in the facility, staff wear all recommended PPE (i.e., gloves, gown, eye protection and respirator or facemask) for the care of all residents on the unit (or facility-wide based on the location of affected residents), regardless of symptoms (based on availability)





- Patient Placement
 - Isolate patient in private room
 - Co-horting (2 sick patients in same room) is being readdressed by CDC and CMS
 - <u>Do not cohort</u> unless you have no other option. Isolate.
 - 50% of infected patients have NO SYMPTOMS!



- Patient Placement
 - AIIRS are single patient rooms at negative pressure related to surrounding areas and a minimum of 6 air changes per hour exhausted directly to the outside.
 - HEPA High Efficiency Particulate Air
 - Facemask on patient
 - PPE on Staff
 - Only essential staff enter room
 - Designated equipment



- PPE Personal Protective Equipment
- Training and Staff Demonstrate an Understanding
 - Gloves
 - Wash hands before and after donning
 - Replace Gloves if tear or become contaminates
 - Gowns
 - On upon entering. Change if becomes soiled



- PPE Personal Protective Equipment
- Training and Staff Demonstrate an Understanding
 - Eye Protection
 - Goggles, Disposable face shield
 - Remove before leaving room
 - N-95 filtering facepiece





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- Patient Placement
 - Keep log of staff who care for or enter room
 - Dedicated non critical patient care items (Blood Pressure Cuffs)
 - If cannot, clean and disinfect before and after usage



Infection Control Core Elements Adhere to Precautions

• Hand Hygiene

- Before and After patient all contact
- Contact with potentially infectious material
- Before putting and removal PPE



- PPE Personal Protective Equipment
- Training and Staff Demonstrate an Understanding
 - Gloves
 - Wash hands before and after donning
 - Replace Gloves if tear or become contaminates
 - Gowns
 - On upon entering. Change if becomes soiled


2

- PPE Personal Protective Equipment
- Training and Staff Demonstrate an Understanding
 - Respiratory Protection
 - Isolation
 - Diagnostic Respiratory Specimen
 - Eye Protection
 - Goggles, Disposable face shield
 - Remove before leaving room
 - N95 filtering facepiece





- Do what you know to do
- When what seems to be contradictory information seems to be coming from multiple known sources, follow evidence-based infection control practices



- When the mode of a pathogen's transmission has not been determined, a facility should follow the most stringent precautions they can support
- If they can support Airborne Precautions, use them
- If not, enhance droplet measures without leaving out the basics
- Masks are important, but they are not the foundation of precautions
- Each escalation over standard precautions is an enhancement
- We don't stop washing our hands and disinfecting surfaces because we think masks are going to save us
- Help your staff snap out of complacency mode
- Healthcare workers are exposed to sick people every day without getting sick Perhaps this is one reason precautions are not strictly followed. Healthcare workers may be desensitized to the risk



- Many of us who use social media have seen the meme with a shirtless Brad Pitt from the movie "Fight Club" imposed next to a person in a complete HazMat suit, full gear
- The caption is, "How a nurse enters a MRSA room vs. how a nurse enters a room with bedbugs."
- Instead of debating the frustrating and maddening underlying truth of that meme, use it
- Teach staff to treat every isolation room like it was bedbugs, scabies, or headlice
- Find your staff's threshold of aversion and use it
- Provide refreshers for all staff, not just clinical staff. Kitchen staff spent a lot more time being educated about food borne illness than they did on Droplet Precautions When was the last time your housekeepers or maintenance staff had to don full PPE? When was the last time they had to doff it?



2

- Demonstrate and explain. It all comes back to the chain of contamination
- Careful donning and fastidious doffing of PPE breaks the chain of contamination
- Careless or thoughtless donning and doffing creates a link in the chain of contamination
- This is not just an education issue
- By the time your staff has worked in the industry a few years, they have seen the educational videos over and over again and can recite parts of them ad nauseum
- It is crucial to develop systems and programs to get the knowledge from the head to the hands
- Infection prevention and control must become a habit



- Create an environment where it is easier to follow precautions than not
- Tucking ABHR stations in out of the way corners for aesthetics makes staff walk out of their way to get to them
- Every step out of the way is a link in the chain of contamination
- Build a culture of compliance where peer to peer reminders and support is encouraged, and not treated like bullying or harassment
- The Infection Preventionist cannot do it all
- If a facility who has had a full time dedicated Infection Preventionist in place for several months gets a hand hygiene tag during survey, it's time to dig deeper



- If the tag was given because one surveyor saw one staff member who didn't do hand hygiene one time, then look into that one staff member
 - Maybe they were a new team member
 - Maybe they were distracted.
- But if the hand hygiene tag came from multiple surveyors seeing several incidents of several staff not cleaning their hands, then it's time to look over the Surveillance Plan
- How much time is the Infection Preventionist actually spending on Surveillance?
 - Is the paperwork immaculate, thorough, and complete, but maybe he or she gets pulled to a cart a couple of times a week, and told to do the surveillance while they are on the cart?



 Phase 3 of the Mega Rule required that SNFs have a dedicated Infection Preventionist who worked at the facility at least part time and that there is written evidence of their participation in QAPI/QAA committee

- State mandates may be more specific

- A full time manager may have Infection Prevention and Control assigned to them among other duties
 - In this case, the facility should carefully evaluate the surveillance needs and determine how many hours are dedicated Infection Prevention and Control hours
- Infection Prevention and Control hours must be sacred. Infection Prevention and Control cannot be treated as a record-keeping-for-survey responsibility, or it isn't going to work



- The wise and prudent Infection Preventionist logs the time spent on Infection Prevention and Control if they have other responsibilities as well
- Surveillance, follow up, and education all must be a constant routine, but the most important system is accountability
- Nurse managers and administrators over the years have produced worksheet after worksheet
 - We have scheduled in-service after in-service, and sometimes we actually hold them all
 - Sometimes even most of the staff members even show up
 - This is all to address some obstacle or issue, but even with the best ideas and tools, the desired change will never happen without accountability

Harmo

Healthcare

2

- Accountability is System 1
 - Without it, all other systems eventually fail
 - This includes Infection Prevention and Control
- This is evidenced by the way Infection Control is handled in many facilities
 - It's part of orientation for new team members, and it's part of the annual in-services we do to satisfy state regulations
- The only other time we look at Infection control is in the Plan of Correction when we get the handwashing tag



- We break out the same old audit sheets
 - We do not analyze the problem
 - We do not acknowledge the problem. "It was just those couple of times the Surveyor saw, honest."
 - We revisit the same old education
 - 100% of staff can parrot the right terms
 - "ABHR." "20 seconds." "Friction." "Before and after every patient contact."
- The Plan of Correction is accepted, the deficiency is rectified to State's satisfaction, we get paper compliance and all is good
 - Except that maybe it isn't so good.
- Would we act differently if hand hygiene tags were Immediate Jeopardy? Perhaps more proactively?



- COVID 19 exposed a deficit in Infection Prevention and Control in many facilities.
 - As an industry, we were not prepared
 - We must take the initiative to change this
- We can treat the inherent obstacles, such as staffing shortages, supply deficits, and uncooperative visitors as excuses, or we can find ways to mitigate the risks



3. Manage Visitor Access and Movement within Facility



Manage Visitor Access and Movement within Facility

- Procedures for Mentoring, Managing and Training Visitors
- Restrict Visitors
- Screen Visitors
- Limit Movement within facility
- Not present during aerosol-generating procedures
- Follow respiratory hygiene and cough etiquette



Manage Staff Movement within and without Facility

- Staff Assignments to Specific Units
- Staff with Secondary Positions
- Showers and Locker Rooms (Supplied by DPH)
- COVID Unit with Separate Entrance
- Staffing COVID Units with COVID positive staff as long as no fever
- COVID positive staff no need to wear masks but need to wear gloves and gowns
- Staff residing at facility



- With a single patient on isolation, the family may visit after first being thoroughly educated about the infection and their risks
- They must also be instructed on hand hygiene and proper PPE use



- The facility may choose to limit the number of visitors and/or the time they can visit
- Visitors should be instructed to exit the building immediately after visiting
- Many facilities provide an escort to and from the patient room to limit visitor access to the rest of the facility



- The SNF is a community not in name alone. Long-term Care units have a socially diverse population, and each individual has their own opinion and acceptance of risk vs. reward for the precautions taken due to COVID-19
- The introvert who has never in the span of their 80+ years particularly enjoyed group activities and prefers to spend most of their time in their room may venture out into the hallways more, since many people may be spending more time in their rooms because they fear getting sick. It's not so "peopley" out there now



- The "people persons" who faithfully attend every activity (even if it's to complain about the activity) may withdraw into their rooms and experience significant depressive symptoms
- On one extreme are the residents who are fearful and want every precaution taken to keep the virus out of the building. On the other are those who feel like they have lived a full life, and they want their activities and visitors because living without them is a fate worse than death



- At some point between the two extremes lies everyone else
- The saying, "The residents do not live where we work. We work in their home" has never been truer and meeting that ideal has never been more of a challenge than it is with COVID precautions



- Facilities must have specific visitation policies and procedures that fluctuate with the status of the community
- Determining criteria to guide when face to face visits are appropriate and when they must be restricted is crucial
- Revisit the criteria and review the effects on residents' quality of life as well as the level of protection they provide to determine whether they are appropriate with each transition between levels of visitation



- Utilizing technology such as FaceTime for video visits should always be available for residents, but when face to face visits are not possible, video visits will increase
- Social Services and Activities should explore the resident's desired contacts for visits
- Do not leave the person with advanced dementia out of the mix. Their family may need to see them and speak with them, whether staff believes the person can participate at any level or acknowledge what is happening by any discernable means or not



- To care for the person means to care for their families as well
- If families do not wish to or are not able to participate in video visits, it's important to keep them updated on the resident's condition regularly
- The responsible party who only visited every couple of months should be contacted for any change of condition



- Some changes of condition are subtle day to day but are a striking difference to the person who has not had visual contact for several months. Weight loss, falls, minor injuries, any injury of undetermined origin have always required notification of the responsible party. This must continue faithfully when visitation is restricted
- If efforts to reach the responsible party over the phone fail, review your facility policies and procedures for written communication. Leaving changes in condition unreported with restricted visitation is not a viable option
- If it isn't documented, it was not done. Recording the contact and summarizing the content of the conversation is necessary



- Take measures to secure the necessary devices while making them available for use presents a challenge
- Staff may resort to using their own personal devices to meet the residents' needs, but this creates a link in the chain of contamination when devices are not properly sanitized between use. Make the devices available with sanitizing instructions and supplies
- When weather allows, "window visits" are a possibility
- Environmental services should evaluate the landscape outside resident rooms for potential hazards and make changes that enhance safety and facilitate visits, such as setting up folding chairs at a safe distance or providing dividers between visiting families when nearby rooms have visitors with overlapping times



- Face to face visits, whether inside or outside of the facility should be observed to make sure close contact policies are followed, no items go into the facility that may be contaminated, and that food and beverages are not shared
- The visiting area should be well ventilated and completely sanitized between every visit



- Visitors arriving early for their visit cannot be seated at the table until the appropriate contact time for disinfectants has passed
- Management of the psycho-social needs care plan is ever changing during these times. Make sure each resident's plan of care includes their preferences for visits when face to face visiting is not possible
- It is challenging, but it provides opportunity to improve patient-centered plans of care that should carry on after the crisis is over



4. Implement Engineering Controls



- Implement Engineering Controls
 - Physical Barriers
 - Air Handling Systems
 - Private Rooms
 - Curtains



• First determine the most appropriate placement for the patient

 It may be necessary to move a Patient with a draining MRSA wound away from other surgical patients to a medical area



- If it is determined that there is a need to create an entire isolation unit, first look at areas with a natural barrier like fire doors instead of building a temporary barrier
- A dedicated isolation should have an entrance only from the facility and an exit to exit the building
- The entrance is considered <u>clean</u> and the exit is considered <u>dirty</u>



- Implement Engineering Controls
 - Physical Barriers
 - Air handling Systems
 - Private Rooms
 - Curtains



- Implement Environmental Infection Control
 - Dedicated medical equipment for patient care
 - Disinfect
 - Routine Cleaning
 - Laundry, Food Service Utensils and Medical Waste



- Implement Environmental Infection Control
 - Cleaning and Disinfecting Facility
 - Disposable gowns
 - Clean surfaces soap and water
 - High Touch Surfaces
 - Soft Touch Surfaces
 - Electronics
 - Laundry
 - Building
 - Additional Considerations





- Physical Barriers
- Air Handling Systems
- Private Rooms
- Curtains
- Dedicated medical equipment for patient care
- Disinfect
- Routine Cleaning
- Laundry, food service utensils, and medical waste



5. Monitor and Manage III and Exposed Staff


- Monitor and Manage III Patients and Exposed Staff
 - Public Health Authorities
 - CMS Memo 4.19.20: Notify State or Local health department residents and staff with suspected or confirmed COVID-19 resulting in hospitalization or death, or 3 or more residents or staff with new-onset respiratory symptoms within 72 hours of each other



- Monitor and Manage III Patients and Exposed Staff
 - Testing (broader and faster)
 - Implement Sick Leave Policies
 - Tracking Sheet
 - Room, Name, Age, Date of Onset Symptoms or Quarantine, Date of Testing, Results of Testing, Code Status, Hospitalization Status, Individuals in Contact, Family Contacted, Date of Deaths



- Staff that provide direct care for patients in isolation precautions need education about the infection and what to look for in themselves
- This education goes hand-in-hand with the education on PPE



- Staff members who are suspected of being infected should be seen by their primary care physician
- In some cases, the medical director will provide this support depending on the arrangement with the facility
- Staff usually may not work while actively infected and should require a physician statement to return to work. The ICP and Human resources will monitor the employee



- Testing
- Implement sick leave policies
- Tracking sheets
- Education on PPE



6. Train and Educate Staff





- Train and Educate Staff
 - Medically Cleared, Trained and Fit Tested for Respiratory Device Use
 - Comfort Care Staff Education





- With each decision to place a patient in isolation, it is imperative that HCP be trained and re-educated
- This training should be a review of the sources and modes of transmission for the infective agent
- Training should also include a review of PPE needed and hand hygiene



6 Infection Control Core Elements Train and Educate Staff

- It is important to personalize the care of each patient in isolation specifically for that resident
- It is extremely difficult for dementia patients to understand isolation



6 Infection Control Core Elements Train and Educate Staff

- Do not forget to train and educate the patient and their visitors
- Visitors can become infected and transmit an infection like anyone else
- They must be assisted and taught the proper use of all PPE





Infection Control Core Elements Train and Educate Staff

- Comfort care staff education
- Train and review on PPE and hand hygiene
- Difficult for dementia patients to understand isolation
- Personalize the care of each patient in isolation
- Train and educate patients and visitors



7. Implement Environmental Infection Control



Infection Control Core Elements Implement Environmental Infection Control

- All state and local health departments have reporting requirements for certain infections that pose higher potential for spread to the public in general
- Along with reporting specific diseases, there are reporting guidelines for reporting outbreaks that involve multiple residents, usually this is any outbreak which involves greater than 10/% of the residents



Infection Control Core Elements Implement Environmental Infection Control

- Implement Environmental Infection Control
 - Cleaning and Disinfecting Facility (CDC attachment)
 - Disposable gowns
 - Clean surfaces soap and water
 - High Touch Surfaces
 - Soft Touch Surfaces
 - Electronics
 - Laundry
 - Building
 - Additional Considerations



7 Infection Control Core Elements Implement Environmental Infection Control Role of Resident Care Equipment in the Chain of Infection

- Study sampled 203 blood pressure cuffs at a single hospital
- Bacterial contamination found on
 - Inner surface of cuffs: 45%
 - Outer surface of cuffs: 23%
- Potentially pathogenic organisms, including methicillin-resistant MRSA, isolated from 13% of cuffs
- Study encouraged the development of standardized cleaning and disinfection procedures for blood pressure cuffs.
- Proper use, including reprocessing of reusable resident care equipment, is necessary to break the chain of infection



7 Infection Control Core Elements Implement Environmental Infection Control Single Resident vs. Multi-Resident Equipment

• Refer to the manufacturer-provided labeling and instructions for use



7 Infection Control Core Elements Implement Environmental Infection Control Single Resident Equipment

- Single-use equipment: Intended to be used once and then discarded
 - Examples include needles and syringes
- Reusable single-resident equipment: Can be used more than once but must be dedicated to a single resident
 - Examples include insulin pens; reusable fingerstick devices; and personal care items like razors, nail clippers, and toothbrushes



7 Infection Control Core Elements Implement Environmental Infection Control Multi-Resident Equipment

- May be used for more than one resident after reprocessing (cleaning followed by either disinfection or sterilization)
- Examples include podiatry equipment, dental equipment, rehabilitation equipment, blood pressure cuffs, and pulse oximeters



7 Infection Control Core Elements Implement Environmental Infection Control Spaulding Classification Scheme

- Categories are based on the degree of risk for infection involved in use of the equipment
- Non-Critical
- Semi-Critical
- Critical



7 Infection Control Core Elements Implement Environmental Infection Control Critical Equipment

- Enters sterile tissue or the vascular system
 - Examples include surgical instruments
 - Must be cleaned and sterilized before reuse
- Cleaning:
 - Manual or mechanical removal of visible soil from an object using water with detergents or enzymatic products
 - Reduces bioburden and removes foreign material that could interfere with disinfection or sterilization
- Sterilization:
 - Destroys all microorganisms on the surface of an object



7 Infection Control Core Elements Implement Environmental Infection Control Semi-Critical Equipment

- Comes into contact with mucous membranes or nonintact skin
 - Example: Cuticle and nail nippers
- At a minimum, requires cleaning followed by high-level disinfection
- High-level disinfection:
 - Complete elimination of all microorganisms, except for small numbers of bacterial spores



7 Infection Control Core Elements Implement Environmental Infection Control Non-Critical Equipment

- Comes into contact with intact skin but not mucous membranes
 - Examples: Blood pressure cuffs, stethoscopes, rehabilitation equipment, and walking aids
- Requires cleaning followed by low- or intermediate-level disinfection



7 Infection Control Core Elements Implement Environmental Infection Control Low-level Disinfection

- Destroys all vegetative bacteria (except tubercle bacilli) and most viruses Does not kill bacterial spores
- Examples of low-level disinfectants include hospital disinfectants registered with the Environmental Protection Agency (EPA) with a HBV and HIV label claim
- Generally appropriate for most non-critical equipment



7 Infection Control Core Elements Implement Environmental Infection Control Intermediatelevel Disinfection

- Kills a wider range of pathogens than a low-level disinfectant. Does not kill bacterial spores
- EPA-registered hospital disinfectants with a tuberculocidal claim are considered intermediate-level disinfectants
- Should be considered for non-critical equipment that is visibly contaminated with blood
 - Low-level disinfectant with label claim against HBV and HIV could also be used



7 Infection Control Core Elements Implement Environmental Infection Control Considerations for Reprocessing Non-Critical Equipment

- Most equipment used for multiple residents in nursing homes will be non-critical
- Cleaning and disinfection of non-critical equipment can often be performed at the point of use
- Frequency of cleaning and disinfection of non-critical equipment:
 - Multi-resident equipment: Clean and disinfect after each use
 - Reusable single-resident equipment: Clean and disinfect when visibly soiled and on a regular basis (e.g., daily or several times per week)



7 Infection Control Core Elements Implement Environmental Infection Control Considerations for Reprocessing Non-Critical Equipment

- Use an EPA-registered disinfectant labeled for use in healthcare
- Follow the label's safety precautions for handling and instructions for product preparation and application
- <u>https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants</u>



7 Infection Control Core Elements Implement Environmental Infection Control Application of Disinfectants and One-Step Cleaners and Disinfectants

- Cleaning should be performed before disinfection
 - Cleaning removes foreign material that could interfere with disinfection
- Contact time:
 - The time that a disinfectant should be in direct contact with the item that is being disinfected to ensure that the pathogens specified on the label are killed
 - Disinfectants with long contact times (e.g., 10 minutes) may require more than one application



7 Infection Control Core Elements Implement Environmental Infection Control Application of Disinfectants and One-Step Cleaners and Disinfectants

- One-step cleaners and disinfectants:
 - Distinct cleaning step may not be required if the item is not grossly soiled
 - Review the label instructions for use; there may be different steps when the product is used as a cleaner versus as a disinfectant



7 Infection Control Core Elements Implement Environmental Infection Control Selection of Disinfectant Products

- Refer to the manufacturer's instructions to identify which disinfectants are appropriate
 - Contact the manufacturer if you are not able to locate instructions
- If you are not able to obtain instructions from the manufacturer, obtain input from your Quality Assessment and Assurance Committee to determine if:
 - Equipment should be used for more than one resident
 - Low- versus intermediate-level disinfection is required



7 Infection Control Core Elements Implement Environmental Infection Control Other Considerations for the Selection of Disinfectant Products

- Kill Claims
- Contact Times
- Safety
- Ease of Use
- Other Factors



7 Infection Control Core Elements Implement Environmental Infection Control Onsite High-level Disinfection and Sterilization

- Most nursing homes will not perform onsite high-level disinfection or sterilization of reusable resident care equipment
- If these activities are performed, they should be addressed in policies and procedures, and dedicated space in the facility should be provided
- Additional guidance about high-level disinfection and sterilization can be found in the Centers for Disease Control and Prevention (CDC) <u>https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html</u>



7 Implement Environmental Infection Control Reprocessing Performed by Consultants

- Consultants, such as podiatrists and dentists, will use equipment that requires high-level disinfection or sterilization
 - Consultants will typically bring a sufficient quantity of equipment for their scheduled appointments without needing onsite reprocessing
 - High-level disinfection or sterilization will then be performed in their office



7 Implement Environmental Infection Control Reprocessing Performed by Consultants

- Infection control breaches included:
 - No separation of clean and dirty counter space
 - Contaminated instruments placed in close proximity to sterile instruments



7 Infection Control Core Elements Implement Environmental Infection Control Reprocessing Performed by Consultants

- Verify that consultants:
 - Have policies and procedures addressing the proper reprocessing of the equipment used during procedures
 - Bring a sufficient supply of equipment to the facility
 - Have sufficient space in the facility to perform procedures and to prevent potential for cross-contamination between clean and dirty equipment
 - Perform proper cleaning and disinfection of environmental surfaces between procedures



7 Implement Environmental Infection Control Reprocessing Performed by Consultants

- Verify that consultants:
- Have sufficient space and supplies to clean instruments after use
 - Consultants should clean instruments after use to ensure that blood and body fluids do not dry on the equipment during transport back to their office
 - You should ensure that sink and counterspace provided are appropriate for cleaning and that proper cleaning and disinfection of that space are performed after the consultant has completed all scheduled procedures
- Have a process to appropriately contain and remove contaminated equipment from the facility for transport back to their office



7 Infection Control Core Elements Implement Environmental Infection Control Providing Staff Education and Competency Assessments

- Staff who use resident care equipment should be educated about proper use
 - Discard single-use equipment immediately after use
 - Proper handling and storage of reusable single-resident equipment.
 - Proper handling of multi-resident equipment:
 - Where to place used equipment
 - How to signal that reprocessing is required


7 Infection Control Core Elements Implement Environmental Infection Control Providing Staff Education and Competency Assessments

- Staff responsible for reprocessing reusable resident care equipment should be provided with hands-on training, including:
 - Where reprocessing should occur
 - Which PPE is necessary to safely handle and reprocess used equipment
 - How to properly prepare and apply recommended cleaners and disinfectants
 - How and where to store equipment once it is ready for reuse
- Manufacturers may have tools and resources for training staff



7 Infection Control Core Elements Implement Environmental Infection Control Providing Staff Education and Competency Assessments

- Training should be provided:
 - Upon hire
 - Annually
 - When new equipment is introduced
 - When new policies and procedures are developed
 - In response to deviations from recommended practices



7 Infection Control Core Elements Implement Environmental Infection Control Providing Staff Education and Competency Assessments

- Verify competency after each training
- Hands-on training and direct observation of practices is particularly important when assessing competency for reprocessing
- Maintain documentation that education and competency assessments were performed



7 Infection Control Core Elements Implement Environmental Infection Control Ensuring Availability of Space and Supplies

 Ensure that a sufficient quantity of supplies—including appropriate PPE, recommended cleaners, and EPA-registered disinfectants—and reprocessing instructions are available in areas where reprocessing will be performed



7 Infection Control Core Elements Implement Environmental Infection Control Ensuring Availability of Space and Supplies

- If reprocessing will not be performed at the point of use or requires the use of a sink, designate space in the facility for reprocessing activities
 - Ensure that the space is sufficient to maintain separation between clean and dirty equipment and tasks
 - The sink used for cleaning should not be used for handwashing or other resident care activities



Infection Control Core Elements Implement Environmental Infection Control Conducting Performance Monitoring and Providing Feedback on Staff Adherence

• Use a standardized

assessment tool to conduct performance monitoring

- Tools should be based on facility procedures and manufacturer's instructions
- Focus on the most critical steps in the procedure
- Include assessment of consultant practices
- Provide feedback to staff and the Quality Assessment and Assurance Committee



7 Infection Control Core Elements Implement Environmental Infection Control Definition of Environmental Surfaces

- "Environmental surfaces" refers to:
 - Surfaces of resident care equipment
 - Housekeeping surfaces, which are divided into two categories:
 - Those with minimal hand contact (e.g., floors and ceilings)
 - Those with frequent hand contact, also known as high-touch surfaces (e.g., doorknobs, bedrails, light switches, and areas around the toilet)



7 Infection Control Core Elements Implement Environmental Infection Control Prevalence of Pathogens on Environmental Surfaces

Environmental surfaces in the healthcare environment are frequently contaminated with pathogens

STUDY

Prevalence of *Clostridioides difficile* contamination in 6 U.S. healthcare facilities.

- C. difficile isolated from surfaces in:
- 100% of rooms housing a patient with *C. difficile.*
- 33% of rooms housing patients who did not have signs or symptoms of *C. difficile* infection.

All rooms cleaned within 24 hours before sampling.



Clostridioides difficile

STUDY

Prevalence of Methicillin-resistant Staphylococcus aureus (MRSA) contamination in 10 nursing homes.

- MRSA identified on ~1 in 6 surfaces in nursing home common areas.
- Surfaces included: handrails, doorknobs, and nurse station counters or carts.
- Frequency of contaminated surfaces varied between nursing homes.



Methicillin-resistant Staphylococcus aureus (MRSA)



7 Infection Control Core Elements Implement Environmental Infection Control Survival of Pathogens on Environmental Surfaces

• Pathogens can survive for long periods of time if proper cleaning and disinfection are not performed



7 Infection Control Core Elements Implement Environmental Infection Control Transfer of Pathogens from the Environment to Residents

- Susceptible residents can become infected or colonized with pathogens if they have direct or indirect contact with contaminated surfaces or equipment
- Patients admitted to a room in which the prior occupant was infected or colonized with a pathogen were more likely to acquire that pathogen than patients admitted to rooms in which the prior occupant was not infected or colonized
- Staff hands play a role in the transfer of pathogens from environmental surfaces
- Hand cultures were positive for pathogens after touching surfaces in:
 - 53% of experiments in occupied rooms
 - 24% of experiments in vacant rooms that had been terminally cleaned



Infection Control Core Elements Implement Environmental Infection Control Need for Improvements in Environmental Cleaning and Disinfection Practices

- Study: 23 hospitals used fluorescent markers to evaluate the thoroughness of terminal room cleaning
- Terminal cleaning: process of cleaning and disinfecting surfaces in a room after a patient has been discharged
- Fluorescent markers:
 - Applied to surfaces before cleaning
 - Presence assessed using special lighting
 - Continued presence after cleaning indicates the surface was not adequately cleaned



7 Infection Control Core Elements Implement Environmental Infection Control Proper Cleaning and Disinfection of Environmental Surfaces Reduces Risk of Pathogen Transmission

- Efforts to better standardize cleaning and disinfection practices at one hospital
 - Reduce transmission of MRSA and VRE in their intensive care units
 - Eliminated increased risk of acquiring MRSA associated with admission to a room that previously housed an MRSA-positive patient
- Interventions included
 - Use of fluorescent marker to assess adequacy of cleaning practices
 - Changing process for how disinfectant was applied to clean cloths
 - Educating staff on importance of adhering to new process for applying disinfectant



• Environmental surfaces are non-critical and should be cleaned followed by low or intermediate level disinfection



- Cleaning
 - Removal of visible soil from surfaces through physical action of scrubbing with a surfactant or detergent and water
 - Reduces the volume of organisms on a surface and removes foreign material that could interfere with disinfection



- Low-Level Disinfection
 - Destroys all vegetative bacteria (except tubercle bacilli) and most viruses
 - Does not kill bacterial spores
 - Examples of low-level disinfectants include hospital disinfectants registered with the Environmental Protection Agency, or EPA, with a HBV and HIV label claim
 - Low-level disinfection is generally appropriate for most environmental surfaces



- Intermediate-Level Disinfection
 - Kills a wider range of pathogens than a low-level disinfectant
 - Does not kill bacterial spores
 - EPA-registered hospital disinfectants with a tuberculocidal claim are intermediate-level disinfectants
 - Should be considered for environmental surfaces that are visibly contaminated with blood
 - Low-level disinfectant with a label claim against HBV and HIV could also be used



7 Infection Control Core Elements Implement Environmental Infection Control Product Selection Considerations

- Decisions about product selection should be made in consultation with environmental services staff
- Select and use disinfectants that are EPA-registered and labeled for use in healthcare settings
 - Typically have "hospital-grade disinfectant" or "hospital disinfectant" on the label



7 Infection Control Core Elements Implement Environmental Infection Control Other Considerations for the Selection of Disinfectant Products

- Kill Claims
- Contact Times
- Safety
- Ease of Use
- Other Factors



- Follow the instructions for use included in the product labeling
- This is important to ensure the pathogens specified on the label will be killed
 - Is the Disinfectant in a ready-to-use format?
 - Is a cleaning step required prior to application?
 - What is the contact time?
 - Is the disinfectant compatible with the surface upon which it will be used?



- Is the disinfectant in a ready-to-use format?
 - Do not mix or dilute unless specified in the label
 - Follow instructions for how frequently fresh solutions should be prepared
 - Dilute solutions can be a reservoir for pathogens
 - Do not "top off" or add new solution to containers of old solution



- Is a cleaning step required prior to application?
 - Even if you are using a one-step cleaner and disinfectant, if the surface is grossly soiled, a distinct cleaning step may be required before application of the disinfectant



- What is the contact time?
 - How should the disinfectant be applied?
 - How long should it remain in contact with the surface?
 - How many towelettes or how much disinfectant is required for the area you are disinfecting?



- Is the disinfectant compatible with the surface upon which it will be used?
 - Ensure staff know which disinfectants are intended to be used on which surfaces and under which circumstances



- Lapses that can result in the spread of pathogens in the environment include:
 - Failure to clean and disinfect all surfaces
 - Cleaning and disinfecting surfaces in the wrong order
 - Failure to follow recommended practices for use of cleaning equipment
- Develop a standardized process to ensure that you are cleaning and disinfecting surfaces appropriately



7 Infection Control Core Elements Implement Environmental Infection Control Developing a Standardized Process for Cleaning and Disinfection

- Always work from the cleanest surfaces to the dirtiest surfaces
- Work from top to bottom
- Consider establishing a consistent process or pattern for cleaning and disinfecting surfaces in the room
- Wipe surfaces in a manner to prevent recontamination



7 Infection Control Core Elements Implement Environmental Infection Control Using Cleaning Equipment Appropriately

- Microfiber mops and cloths are preferred
 - Change cleaning cloths frequently
 - Change microfiber mop heads after use in each room
 - Environmental services carts should not enter resident rooms, and supplies brought into the room should be limited to the minimum necessary for that space



- Routine cleaning and disinfection for resident rooms:
- High-touch surfaces are those most likely to be touched by residents and staff and therefore pose the highest risk for pathogen transmission
- Examples include bedrails, doorknobs, light switches, call buttons, bedside tables, remote controls and surfaces in the bathroom, particularly those around the toilet
- Horizontal surfaces with infrequent hand contact, like floors and window sills, should be cleaned:
 - On a regular basis (e.g., daily)
 - When spills occur, and
 - If the surfaces become visibly soiled
- Walls, blinds, and window curtains should be cleaned when visibly soiled Harmo

Healthcare

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7 Infection Control Core Elements Implement Environmental Infection Control Frequency of Cleaning and Disinfection: Terminal Cleaning of Resident Rooms

- Terminal cleaning of a room is performed when a resident has been discharged or transferred and the room is being prepared for another resident
- All high-touch surfaces should be cleaned and disinfected
- Horizontal surfaces with infrequent hand contact, like floors and window sills, should also be cleaned and disinfected
- All linens, including sheets, towels, and privacy curtains, should be bagged and removed for laundering



7 Infection Control Core Elements Implement Environmental Infection Control Frequency of Cleaning and Disinfection Procedure and Treatment Areas

- Invasive procedure and treatment areas:
- High-touch surfaces in rooms where invasive procedures are performed should be cleaned and disinfected after each procedure
- Non-invasive procedure and treatment areas:
- High-touch surfaces in other common treatment areas (e.g., therapy gyms) where invasive procedures are not performed should be cleaned and disinfected:
 - When visibly soiled
 - At least daily
 - Immediately after use by residents colonized or infected with highly resistant organisms (e.g., *C. difficile* or carbapenem-resistant Enterobacteriaceae)



7 Infection Control Core Elements Implement Environmental Infection Control Cleaning and Disinfection of Common Areas

- High-touch surfaces in the facility's common areas (e.g., family room or lounge) should be cleaned and disinfected:
 - When soiled
 - On a regular basis (e.g., daily)



7 Infection Control Core Elements Implement Environmental Infection Control Cleaning Carpeting

- Harder to keep clean and cannot be reliably disinfected, especially after spills of blood or body fluids
- Recommended practices:
 - Minimize use in high-traffic zones within resident care areas or where spills are likely
 - Vacuum on a regular basis with equipment designed to minimize dust dispersion
 - Periodically deep clean using a method that minimizes production of aerosols and leaves little to no residue
 - Promptly spot clean spills of blood or body fluids



7 Infection Control Core Elements Implement Environmental Infection Control Cleaning Upholstered Furnishings

- Pose challenges with cleaning and disinfection
- Recommended practices:
 - Minimize use in areas with increased potential for body substance contamination
 - Maintain in good repair; promptly repair tears and holes
 - If furniture in a resident's room requires cleaning to remove visible soil or body substance contamination, promptly move that item to a maintenance area



7 Infection Control Core Elements Implement Environmental Infection Control Supplies and Space

- Dedicate space to store cleaning and disinfection products and equipment
 - Maintain separation between clean and dirty equipment
- Cleaning and disinfection schedules should include clean and dirty utility areas
- Designate staff to monitor supply levels in these areas and restock, as appropriate



7 Infection Control Core Elements Implement Environmental Infection Control Supplies and Space

- Carts commonly used to transport supplies throughout the facility can serve as a source of pathogen transmission if they are not regularly cleaned and disinfected
 - For example, in an outbreak of drug-resistant Enterobacteriaceae at a hospital, the organism was identified on an environmental services cart, suggesting a potential role in transmission
- Carts should not enter resident rooms and should be cleaned and disinfected at least daily



7 Infection Control Core Elements Implement Environmental Infection Control Performance Monitoring and Feedback

- Performance monitoring and feedback ensure adherence to facility policies and procedures
- Frequency and locations of audits should be informed by your annual IPC risk assessment
 - More frequent monitoring may be performed on higher acuity units or the rooms of residents on Transmission-Based Precautions
- Results of performance monitoring should be documented and shared to reinforce adherence to recommended practices
- Self-assessment checklists and signoff sheets can be helpful reminders but these alone are not sufficient



7 Infection Control Core Elements Implement Environmental Infection Control Methods of Performance Monitoring

- Methods for auditing cleaning and disinfection practices vary
 - There are pros and cons to each of these methods
- Facilities could consider implementing more than one approach to performance monitoring


7 Infection Control Core Elements Implement Environmental Infection Control Visual Assessment

- Visually inspecting the cleanliness of a room after cleaning and disinfection has been performed
- Visual assessment, alone, is not sufficient to ensure that all surfaces have been properly cleaned and disinfected
- Just because a surface appears clean does not mean that it was disinfected



7 Infection Control Core Elements Implement Environmental Infection Control Direct Observation

- Observe staff practices with the assistance of a checklist
 - Confirm they have prepared and applied cleaners and disinfectants in accordance with facility policies and procedures
 - Confirm they have addressed all required surfaces in the room
- Staff may modify their typical practices if they are aware they are being observed



7 Infection Control Core Elements Implement Environmental Infection Control Fluorescent Markers

- Apply fluorescent markers before cleaning and assess the markers using special lighting after cleaning
 - If the marker is still present after cleaning, it objectively indicates the surface was not adequately cleaned
- This method would not identify deviations in preparation of cleaning and disinfection products or in how products were applied



7 Infection Control Core Elements Implement Environmental Infection Control Adenosine Triphosphate Bioluminescence Assay Systems

- Adenosine triphosphate (ATP) bioluminescence assay systems measure residual organic matter, both microbial and non-microbial, that is left on a surface after cleaning
- Provides quantitative results that can be used to track and document improvement in daily cleaning practices
- Method would not identify deviations in preparation and use of cleaning and disinfection products



7 Infection Control Core Elements Implement Environmental Infection Control Culturing of Surfaces

- Not recommended for routine monitoring of staff adherence
- May be performed in consultation with the health department as part of an outbreak investigation



7 Infection Control Core Elements Implement Environmental Infection Control Performance Monitoring and Feedback

- Results of monitoring should be documented and shared
- Additional information about options for evaluating environmental cleaning available on CDC website
- <u>https://www.cdc.gov/hai/toolkits/evaluating-environmental-</u> <u>cleaning.html</u>



7 Infection Control Core Elements Implement Environmental Infection Control Water Use in Healthcare Facilities

- Water is used for a variety of purposes in healthcare facilities
- Examples include:
- Drinking and food preparation
- Environmental cleaning
- Resident care activities:
 - Bathing
 - Toileting
 - Personal hygiene
- Therapy equipment (e.g., hydrotherapy tanks and whirlpools)
- Facility maintenance systems (e.g., cooling towers, hot water heaters, humidifiers)



7 Infection Control Core Elements Implement Environmental Infection Control Waterborne Pathogens

- Bacteria are found naturally in the environment
- Municipalities treat water with disinfectants to reduce level of pathogens
- Disruptions and inadequate water safety controls within facility water systems can impact water quality and contribute to growth and spread of waterborne pathogens



7 Infection Control Core Elements Implement Environmental Infection Control Legionnaires'

<u>Disease</u>

- Severe form of pneumonia caused by *Legionella*
- Commonly reported cause of waterborne infection outbreaks in nursing homes
- Transmitted by inhalation or aspiration of water containing *Legionella*
- Risk factors for Legionnaires' disease include:
 - Age \geq 50 years old
 - Chronic lung disease
 - Smoking
 - Impaired immunity



7 Infection Control Core Elements Implement Environmental Infection Control Legionnaires' Disease Outbreak in a Nursing Home

- Environmental cultures were positive for *Legionella* strains highly related to the clinical isolates from ill residents
 - Closed pipes (dead legs) with no water flow may have contributed to Legionella growth in the water system
- Interventions included:
 - Maintaining adequate disinfectant levels
 - Ensuring constant circulation of hot and cold water
 - Additional flushing or removal of dead legs



7 Infection Control Core Elements Implement Environmental Infection Control Other Waterborne Pathogen Outbreaks

- Multiple waterborne pathogens can cause infections due to water exposure
- <u>https://www.cdc.gov/hai/prevent/environment/water.html?CDC_AA_ref</u>
 <u>Val=https%3A%2F%2Fwww.cdc.gov%2Fhai%2Fprevent%2Fwater-</u>
 <u>management.html</u>



7 Infection Control Core Elements Implement Environmental Infection Control Water Management Program

- Reduces the risk of water serving as a source of infections in healthcare facilities
- Identifies both hazardous conditions and corrective actions that can minimize the growth and spread of waterborne pathogens
- https://www.cdc.gov/legionella/wmp/toolkit/index.html



7 Infection Control Core Elements Implement Environmental Infection Control Elements of a Water Management Program

- Establish a water management program team
- Describe the building water systems using text and flow diagrams
- Identify areas where Legionella could grow and spread
- Decide where control measures should be applied and how to monitor them
- Establish ways to intervene when control limits are not met
- Make sure the program is running as designed and is effective
- Document and communicate all the activities
- https://www.cdc.gov/legionella/downloads/toolkit.pdf



7 Infection Control Core Elements Implement Environmental Infection Control Element 1 – Establish a Water Management Team

- Water management program team
 - Knowledge of the water systems
 - Ability to identify control locations and control limits
 - Ability to identify and take corrective actions
 - Ability to monitor and document program performance
 - Ability to confirm program performance
 - Ability to communicate regularly about the program
 - Ability to oversee the program



7 Infection Control Core Elements Implement Environmental Infection Control Element 2 – Describe the Building's Water System



 https://www.cdc.gov/legionella/h ealth-depts/environmental-invresources.html



7 Infection Control Core Elements Implement Environmental Infection Control Element 3 – Identify Areas Where Legionella Could Grow and Spread

- Identify potential hazards to water quality or areas of vulnerability that could lead to the growth of waterborne pathogens within the plumbing infrastructure
- Age of pipes and reservoirs
- Flow and recirculation of hot water
- Areas of low flow or stagnation
- Disruption to the water system



7 Infection Control Core Elements Implement Environmental Infection Control Age of Pipes and Reservoirs

• The accumulation of debris, scale, and sediment within pipes or storage tanks can alter the circulating disinfectant levels and allow for biofilm formation



7 Infection Control Core Elements Implement Environmental Infection Control Flow and Recirculation of Hot Water

- The process of heating water can reduce disinfectant levels
- Recirculating hot water pipes that return water with reduced disinfectant could cool to a temperature where *Legionella* can grow
- Stagnation, when water is allowed to sit in pipes, can result in:
 - Inappropriate temperature
 - Sediment accumulation
 - Biofilm formation



7 Infection Control Core Elements Implement Environmental Infection Control Areas of Low Flow or Stagnation

- Piping with low or no flow due to design or decreased water use can encourage biofilm growth:
 - Water is not flowing well
 - Failure to maintain adequate temperature or disinfectant levels
- Areas of a building where water is not being used frequently may facilitate pathogen development in the pipes and fixtures



7 Infection Control Core Elements Implement Environmental Infection Control Disruptions to the Water System

- Construction, renovations, and installation of new equipment can be sources of vibration and changes in water pressure or flow
- Dislodges biofilms and pathogens into the water system
- Occurs in the building or in the municipal water system
- Impacts water quality and safety in the facility



7 Infection Control Core Elements Implement Environmental Infection Control Element 4 – Define Control Measures and Points for Water Monitoring

- Identify the measures you are going to use to monitor water quality and the points within the building's water systems to be monitored. Examples include:
 - Visual inspection
 - Water temperature
 - Disinfectant levels
- <u>https://www.cdc.gov/infectioncontrol/guid</u> <u>elines/environmental/index.html</u>
- <u>https://www.epa.gov/sites/production/file</u>
 <u>s/2016-</u>

<u>09/documents/legionella_document_mast</u> er september 2016 final.pdf



7 Infection Control Core Elements Implement Environmental Infection Control Element 5 – Establish Interventions for When Control Measures Are Not Met

- Establish an action plan to address what happens if control measures are out of range:
 - Who is notified?
 - What is the immediate action?
 - Document the interventions
 - Verify that control measures are back within acceptable limits





7 Infection Control Core Elements Implement Environmental Infection Control Engage Public Health Partners for Water Quality Concerns

• State and local public health departments can offer support and guidance on how to investigate and address problems in water quality



7 Infection Control Core Elements Implement Environmental Infection Control Engage Public Health Partners for Water Quality Concerns

- Contact the health department to assist in investigating a possible waterrelated outbreak for the following:
 - A single case of Legionnaires' disease
 - A rise in the rate of infections due to the same waterborne pathogen, such as *Pseudomonas or Acinetobacter*
- Health department can also provide:
 - Guidance for water quality concerns that cannot be resolved by the facility's water management team
 - Information about waterborne infections in the community



7 Infection Control Core Elements Implement Environmental Infection Control Element 6 – Ensure That the Program Is Effective

- Verification that the water management program is running as designed
 - Ensuring that temperature levels have been checked for each control point (at intervals specified in the water management program)
 - Ensuring that values outside established control limits have prompted the appropriate, pre-determined action



7 Infection Control Core Elements Implement Environmental Infection Control Element 6 – Ensure That the Program Is Effective

- Validation that the program is effective
 - Environmental testing for hazards
 - Clinical surveillance of infections
- When selecting a validation strategy, your facility should consider the following:
 - Facility and resident population risk factors
 - Available resources
 - Recent experience with Legionella, Pseudomonas, or other waterborne infections (e.g., Legionella infections in the community within last 12 months)
- <u>https://www.cdc.gov/legionella/wmp/healthcare-facilities/water-mgmt-validation.html</u>
- <u>https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html</u>
- <u>https://www.cdc.gov/legionella/clinicians.html</u>



 7 Infection Control Core Elements
 7 Implement Environmental Infection Control Element 7 – Document and Communicate Program Activities

- Review and update documentation related to water management program activities, including:
 - Water systems flow diagram, risk assessment, and control monitoring plan
 - Results of control measure monitoring
 - Detection of and responses to water quality incidents or increases in infections from waterborne pathogens
 - Updates to the water management program and processes for monitoring water quality can be used to educate facility staff



7 Infection Control Core Elements Implement Environmental Infection Control Additional Strategies to Prevent the Spread of Waterborne Pathogens

- Infection prevention practices to prevent transmission of waterborne pathogens:
 - Avoid splash contamination in medication preparation areas.
 - Eliminate reservoirs of contaminated water within equipment.
 - Clean and disinfect sink bowls and surfaces around the sink.
 - Avoid fountains in resident care areas.
 - Use the type of water appropriate to the medical device or procedure.



7 Infection Control Core Elements Implement Environmental Infection Control The Role of Linens in Pathogen Transmission

- Resident linen can become contaminated with pathogens from contact with intact skin or body substances, including blood, stool, vomitus, and other body fluids
- Pathogen transmission can occur through:
 - Direct contact with contaminated linens
 - Aerosols generated from sorting and handling contaminated linens



7 Infection Control Core Elements Implement Environmental Infection Control Pathogen Transmission Associated with the Handling of Used Linen

- During an outbreak of foodborne Salmonella gastroenteritis among nursing home residents, three laundry staff developed infections through the inappropriate handling of linen soiled with feces
 - Gloves were not consistently worn when handling contaminated linen
 - Staff regularly ate their own food in the laundry room



7 Infection Control Core Elements Implement Environmental Infection Control Pathogen Transmission Associated with Transport and Storage

- Clean linen can also become contaminated with pathogens if they are not appropriately transported and stored
- Outbreak:
 - Five hospital patients developed cutaneous mucormycosis caused by *Rhizopus*, a type of fungus
 - *Rhizopus* was isolated from cultures of clean linens and clean linen delivery bins from the offsite laundry facility



7 Infection Control Core Elements Implement Environmental Infection Control Breaking the Chain of Infection

- Proper linen management is important to break the chain of infection
- Linen needs to be "hygienically clean," which is defined as "free of pathogens in sufficient numbers to cause human illness"



7 Infection Control Core Elements Implement Environmental Infection Control Recommended Practices for Linen Management

- Recommended practices for linen management include:
 - Collection and transport of used linen
 - Sorting and laundering of used linen
 - Transport and storage of clean linen
- If laundry services are provided by an offsite entity, facilities should still have policies and procedures to address:
 - Proper collection and transport of used linen
 - Proper transport and storage of clean linen returned to the facility
- Facilities should also verify that the offsite laundry facility has policies and procedures to launder and transport linen in a way that maintains a hygienically clean state



7 Infection Control Core Elements Implement Environmental Infection Control Proper Collection and Transport of Used Linen

- The laundry process starts with the removal of used linen from the point of use (e.g., resident room or care area)
- All used linen should be handled using Standard Precautions, including hand hygiene and use of personal protective equipment (PPE)
- Minimize handling of used linen
 - Do not sort or rinse used linen at the point of use
 - Do not shake used linen or hold it close to the body
- Place used linens into designated bags or other appropriate containers at the point of use
 - Single bags of sufficient tensile strength are adequate for containing laundry
 - Leak-resistant containment is needed if laundry is wet and capable of soaking through a cloth bag
 - Securely tie bags or close collection containers to prevent leakage during transport



7 Infection Control Core Elements Implement Environmental Infection Control Laundry Area

- If laundering is performed onsite, you should ensure that the laundry area is designed to maintain two separate areas
 - A dirty area for receiving and handling used linen
 - A clean area for processing washed items
 - To minimize the potential for recontaminating clean linen with aerosolized contaminated lint, the dirty area should be at negative air pressure relative to the clean area
- Staff should have access to hand hygiene supplies and appropriate PPE
- All laundry equipment should be used and maintained according to the manufacturers' instructions



7 Infection Control Core Elements Implement Environmental Infection Control Sorting Used

- Sorting of used linen includes removal of any hard objects that are inadvertently mixed in with used linen
- Whenever possible, sorting should be performed before washing
- Facility policy should address when and how sorting is performed
 - Sorting should not be performed at the point of use (e.g., resident room)
 - Gloves used for sorting (e.g., utility gloves) should be of sufficient thickness to minimize sharps injuries


7 Infection Control Core Elements Implement Environmental Infection Control Sorting Used

- Sorting Before Washing
 - Protects machinery and linen from hard objects
 - Reduces the potential for recontamination of clean linen
 - Allows for customization of laundry process base on mix or linen and types of soil



7 Infection Control Core Elements Implement Environmental Infection Control Sorting Used Linen

- Sorting After Washing
 - Minimizes staff exposure to pathogens in used linen
 - Reduces airborne microbial contamination in the laundry area



7 Infection Control Core Elements Implement Environmental Infection Control Laundry Process

- Laundering cycles consist of:
 - Initial flush with water
 - Main wash with cleaning agents and other laundry additives
 - Rinsing with clean water
 - Drying
 - Pressing, as needed
 - Preparation for distribution back to the facility (if offsite) or to the clean storage area



7 Infection Control Core Elements Implement Environmental Infection Control Laundry Process

- Facilities should follow the fabric-care instructions, laundry detergent labels, and washing machine instructions to prevent damage to laundered items and maintain the detergent's effectiveness
- If hot-water cycles are used, wash with detergent in water ≥160°F for ≥25 minutes
- If low-temperature washing cycles are used, choose chemicals suitable for low-temperature washing at proper use concentration
- <u>https://www.cdc.gov/infectioncontrol/guidelines/environmental/background/laundry.html</u>



7 Infection Control Core Elements Implement Environmental Infection Control Transporting Clean Linen

- Clean linen must be packaged to prevent contamination during transport or storage. Options include:
 - Placing clean linen in a hamper lined with an unused liner, which is then closed or covered.
 - Placing clean linen in a properly cleaned cart and covering the cart with disposable material or a properly cleaned reusable textile material that can be secured to the cart.
 - Wrapping individual bundles of clean linen in plastic or another suitable material and sealing or taping the bundles.



7 Infection Control Core Elements Implement Environmental Infection Control Storage of Clean Linen

- Clean linen should be stored in dedicated clean areas in a manner that keeps them dry and free from soil and contamination
- Storage areas (both central and on-unit) should be:
 - Designed to minimize dust contamination
 - Maintained at normal room temperature and humidity ranges
- Using separate rooms, closets, or other designated spaces with a closing door is the most secure way to reduce the risk of environmental contamination



7 Infection Control Core Elements Implement Environmental Infection Control Incorporating Best Practices Into an Infection Prevention and Control Program

- Developing policies and procedures
- Provide staff education and competency assessments
- Ensure the accessibility of space and supplies
- Conduct performance monitoring and feedback



Infection Control Core Elements Implement Environmental Infection Control

- All state and local health departments have reporting requirements for certain infections that pose higher potential for spread to the public in general
- Along with reporting specific diseases, there are reporting guidelines for reporting outbreaks that involve multiple residents, usually this is any outbreak which involves greater than 10/% of the residents
- Cleaning and disinfection the facility
- Single use resident equipment vs. reusable single-resident equipment vs. reusable equipment after reprocessing



8. Establish Reporting within Facility to Public Health



Infection Control Core Elements Establish Reporting within Facility to Public Health

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- Communication is one of the most important parts of crisis management
- In corporate crisis communication, effective, timely, and transparent communications are critical to maintaining the trust of patients and families
- Letters or other communications with residents and their families should, for example, explain the steps a PALTC facility is taking to limit adverse impacts on its residents and other affected stakeholders and illustrate how steps align with CDC or other Federal and state guidance



- Long-term care facilities dealing with COVID-19 or a similar crisis can minimize the potential for miscommunication and frustration by establishing communication channels and partnerships with their stakeholders, which include, but are not limited to: residents and their families; facility staff; vendors and other facility service providers; community healthcare providers, such as local hospitals and home health agencies; and public health departments
 - Ideally, channels of communication are established long before a crisis emerges to avoid frustration, miscommunication and inefficiency
 - Provider communication with residents and families should detail how they will support on-going resident and family care if in-person visits are limited: for example, scheduling times for virtual visits or assisting with phone calls



- Because crisis communication of health information must be complete, transparent, and compliant with HIPAA privacy and security regulations, planning is best handled by a team that includes medical (e.g., medical director, director of nursing), administrative (e.g., nursing home administrator), and legal and communications representatives
 - However, to ensure consistency across communications, one individual should coordinate the communication for the team whenever possible



Establishing Communication Identify the Crisis (or crises)

- During the COVID-19 pandemic there may be several crises that your facility will face concurrently, such as a severe staff shortage and shortage or absence of essential PPE
- Identifying and prioritizing needs can help you plan next steps



Establishing Communication Identify the Communicators

- Because crisis communication of health information must be complete, transparent, and compliant with HIPAA privacy and security requirements, planning is best handled by a team
- The team will vary depending on the setting; for example, in a nursing home a team may include medical (e.g., medical director, director of nursing), administrative (e.g., nursing home administrator), and legal and communications representatives
- To ensure consistency across communications, one individual should coordinate the communication for the team whenever possible



Establishing Communication Identify Stakeholders

- Your stakeholders may include staff; residents and their loved ones; state and local government entities, such as the health department or survey agency; and local healthcare providers and coalitions. They can also change depending on the crisis, so taking a moment to define who they are will allow you to develop a strategy and tailor your message. Sometimes, you may be forced to prioritize the needs of some stakeholders over others.
- For example, there may be a lack of PPE in a COVID-19 naïve nursing home in a state that has mandated every nursing home admit COVID-19 positive individuals. By taking these patients, there is a risk of exposing an unprepared, naïve facility to COVID-19. The team will need to effectively express its facility's limitations to its acute care partners as soon as possible and work with them and health officials to identify an alternative.



Establishing Communication Identify Stakeholders

- In this instance, the immediate stakeholders are your organization's acute hospital referral partners. Other stakeholders you could consider prioritizing include the health department, state survey agency, emergency management agency, and the long-term care Ombudsman partners in your area. You will need to effectively communicate to them:
 - Your facility's lack of exposure to COVID-19
 - Your PPE counts
 - Why you should not be forced to take a resident



Establishing Communication Identify Stakeholders

 Your assessment should be transparent and coincide with your data. Communicating these facts effectively will show why it would be mutually beneficial to avoid exposing your vulnerable population to this disease



Establishing Communication Create a Hierarchy for Sharing Information on the Crisis

- The crisis team should be known to the entire organization
- Inquiries should be delivered to the crisis team and answered by their designated person
- This will decrease the chance of inconsistent communications to stakeholders
- All answers should also be aligned with policies and procedures



Establishing Communication Assign People to Create Fact Sheets

- During a crisis your organization will be inundated with questions
- Many of them will be predictable and others may be unpredicted but common
- Your organization should publish and continually update a page of frequently asked questions with clear answers pertaining to the crisis
- You may have separate documents depending on the intended audience—clinicians, staff or residents/families
- These documents can be developed by experts identified by your crisis team



Establishing Communication Create a Repository of Best Practices

- When dealing with a rapidly evolving crisis such as the COVID-19 pandemic, it is a good idea to develop a repository of best practices
- These best practices should be made readily available to leaders in your organization, and the date (or revision date) should be bolded at the top
- It should also be continually evolving and updated to conform to CDC and governmental regulations
- Assign someone on your crisis team to keep an eye out for the latest guidance from the government
- This guidance should be consistent with your organization's policies and procedures
- In some cases, your best practices may precede and even influence your facilities' policies and procedures



Establishing Communication Identify Potential Risk

- The communications team should think about potential risks to the organization that your communication plan can expose and how they will respond to missteps
- For instance, in an effort to be transparent, you accidentally disclose protected health information under the HIPAA Privacy Rule
- What must your team do? How do you mitigate reputational injury related to having to report your COVID-19 data to the state for publication?



Establishing Communication Create Guidelines Specific to Broadcast, Print and Social Media

 This can be an important tool to promote transparency and highlight what your organization is doing to combat COVID-19. Things like listing your visitation policies and explaining why they are in place, sharing ways that your staff is keeping residents engaged and active during isolation, and encouraging family members and friends to donate needed items and call/video conference with their loved ones in the nursing home can lead to positive stories in the media.



Establishing Communication Create Guidelines Specific to Broadcast, Print and Social Media

 You may also want to publish certain stories internally. Many of your own healthcare providers will be watching what you do during this crisis. Many will be nervous, and some may be ready to quit. Consider interviewing staff in your facility who have recovered from COVID-19 and returned to work. This will abate some of the fears your team has. Be ready to listen to them and respond accordingly. Weekly staff huddles can help with this.



Supporting Staff



Supporting Staff The Basics

- Communication
 - The staff wants to know the facts
 - If you don't tell them the facts, chances are they will create their own
- Communication is a two-way street
 - You need to get their input
 - Listen to their concerns and their ideas
- Going back to leadership
 - Staff want to know that you are compassionate about them
 - their work and what sacrifices they are making



Supporting Staff The Basics

- Supplies
 - Staff must have the supplies they need and be confident that they will continue to have them
 - Hand sanitizers must be frequently and conveniently located
- On-going education
 - With so many changes in requirements for PPE, visitations, activities, dining etc, is it any wonder, staff gets confused
 - Bring the Education to them and bring it timely



Supporting Staff Emotional Care

- Physically and emotionally exhausting work
- Nurses and CNAs are fearful and stressed about their work in several ways:
 - they are concerned for their own health and safety
 - they are concerned they could infect their families
 - they have a feeling of isolation if they work on the COVID-dedicated wing
 - they are working with long-term residents who may not recover/have not recovered



Supporting Staff Emotional Care

- Be aware of the post-crisis "melt-down"
 - Have you seen your strongest nurse collapse emotionally after the crisis subsides?
 - If you had an extended time, where you had many positive residents and deaths, your staff may have worked tirelessly throughout
 - Only after it is "over", your staff has time to think through their experiences
- An emerging consequence of the COVID-19 pandemic is post-COVID stress disorder



Supporting Staff How to Help

- Offer emotional support
 - Information on the company's Employee Assistance Program
 - Listing of Community agencies providing counseling services
 - HR Department contact
 - Chaplaincy service information
- Offer flexible scheduling when possible
- Give an extra day off, as scheduling allows
 - If someone says I need a few days off, find a way to give it to him/her
- Provide company paid meals delivered to their work areas
- Offer assistance with daycare costs
- Provide monetary incentives



Supporting Staff More Creatively

- Send hand-written personalized notes to staff members, from the Administrator, or others who may know of a specific act of kindness or effort, or a more generalized letter of appreciation.
- Have the Activities Staff assist residents in writing thank you notes, or an appreciation banner for each nursing unit
- Send every employee a packet of sunflower or wildflower seeds, and a note about starting a garden
- Send to each employee's home a care package
 - It could include a box of tea and some comfy socks, a little spa gift basket or some luxury soaps



Education and Monitoring



Education and Monitoring Providing Staff Education and Competency Assessments

- Training should be provided:
 - Upon hire
 - Annually
 - When new equipment is introduced
 - When new policies and procedures are developed
 - In response to deviations from recommended practices



Education and Monitoring Providing Staff Education and Competency Assessments

- Verify competency after each training
- Hands-on training and direct observation of practices is particularly important when assessing competency for reprocessing
- Maintain documentation that education and competency assessments were performed


- Train and Educate Staff
 - Medically Cleared, Trained and Fit Tested for Respiratory Device Use
 - Comfort Care Staff Education



- With each decision to place a patient in isolation, it is imperative that HCP be trained and re-educated
- This training should be a review of the sources and modes of transmission for the infective agent
- Training should also include a review of PPE needed and hand hygiene



- It is important to personalize the care of each patient in isolation specifically for that resident
- It is extremely difficult for dementia patients to understand isolation



- Do not forget to train and educate the patient and their visitors
- Visitors can become infected and transmit an infection like anyone else
- They must be assisted and taught the proper use of all PPE, and specifically for a compassionate care visit, should be shown how to don and doff PPE properly.



Education and Monitoring Providing Staff Education and Competency Assessments

- Staff who use resident care equipment should be educated about proper use
 - Discard single-use equipment immediately after use
 - Proper handling and storage of reusable single-resident equipment.
 - Proper handling of multi-resident equipment:
 - Where to place used equipment
 - How to signal that reprocessing is required



Education and Monitoring Providing Staff Education and Competency Assessments

- Staff responsible for reprocessing reusable resident care equipment should be provided with hands-on training, including:
 - Where reprocessing should occur
 - Which PPE is necessary to safely handle and reprocess used equipment
 - How to properly prepare and apply recommended cleaners and disinfectants
 - How and where to store equipment once it is ready for reuse
- Manufacturers may have tools and resources for training staff



Facility Policies and Operations



Facility Policies and Operations

- Facility policies and operations, including engineering controls, e.g., ventilation and personal protective equipment (PPE) e.g., respirators may need to be (further) adjusted to reduce disease transmission and exposure risks for residents and staff (e.g. limiting visitation to necessary support persons for individuals with disabilities, and compassionate care situations; cohorting residents in non-restrictive environments; cancelling unneeded visits or delaying visits for routine and preventive care; practicing social distancing (6-feet) where possible)
- Enhanced decontamination of facility surfaces and equipment would need to be implemented



Facility Policies and Operations Legal

 PALTC facilities should also coordinate operational adjustments with relevant state, regional, and local authorities—including relevant medical direction



Facility Policies and Operations Response & Operations

- The PALTC facility's emergency preparedness program and supporting emergency operations plan (EOP) should address the unique challenges presented by COVID-19 including but not limited to: potential staffing shortages and limited resources; crisis communication; significant modifications to operations to prevent the spread of the virus; and coordination with other hospitals, PALTC facilities, local government, and PALTC organizations
 - PALTC facilities should review their current plans and response structure to ensure they position the organization to rapidly identify and adopt operational shifts aimed at avoiding transitions to contingency or even crisis standards of care



- Develop and institute an Incident Command System (ICS)
- Form an Incident Management Team (IMT) that includes a designated leader (incident commander), key command staff (including the infection preventionist and medical director), and designated staff charged with managing operations, logistics, planning, finance, and administration
 - The Infectious Disease Response Guide from Nursing Home Incident Command System offers additional details about the roles and key responsibilities of each team member



- Use the facility's existing emergency plan to develop and institute an Incident Action Plan (IAP) that addresses the unique challenges presented by the COVID-19 pandemic and:
 - Considers the organization's mission, policies, procedures and EOP;
 - Takes stock of and accounts for, the current situation based on available data and assessments;
 - Establishes incident objectives according to the principle of Management by Objectives;
 - Determines appropriate strategies to achieve the objectives;
 - Gives tactical direction to facility staff and others and identifies mechanisms to judge their effectiveness; and
 - Identifies the support needed to institute and refine or revise elements of the IAP based on evolving conditions



- Develop new, or repurpose existing, systems to monitor and proactively identify potential shortages in critical internal and external resources, such as staff, PPE, testing supplies (e.g., swabs), and body bags
- Institute administrative and operational infection prevention controls that preserve and conserve available resources, including staff and PPE, by reducing resident and staff risk of exposure to, or transmission of, COVID-19. These include, but are not limited to:
 - Restricting visitor entry12 and building access points;
 - Repurposing existing space within the facility (e.g., dining rooms or visiting areas) to create observation units for residents with suspected COVID-19;
 - Changing infection control standards to permit group isolation (i.e., cohorting) for confirmed cases of COVID-19 or other communicable diseases rather than single person isolation unit; and
 - Moving residents with confirmed COVID-19 to dedicated spaces within the facility and assigning dedicated staff to work in that unit



- If shortages begin to emerge, institute conservation and risk mitigation strategies, such as:
 - Activating local, regional, and state partners and partner networks, including health departments and healthcare coalitions, for assistance addressing staffing, PPE, testing, and other critical resource shortages;
 - Extending use, reuse, or prioritization for certain activities of PPE including gowns, facemasks, respirators, gloves, and eye protection;
 - Changing staffing patterns and increasing hours in ways that prioritize ongoing service provision for direct resident care needs;
 - To help staff accommodate these changes, PALTC facilities may need to provide additional support in the form of onsite housing, negotiated access to local day care provider services, and transportation
 - Expanding the roles of existing staff;
 - Expanded staff roles should occur incrementally and only for as long as necessary. Those performing expanded roles should be under the supervision of an experienced, licensed MD, DO, APRN, RN or other person of appropriate discipline for the specific types of care, who delegates and directs a team of healthcare workers and oversees a patient caseload
 - Allowing asymptomatic staff with confirmed COVID-19 to provide direct care for residents/patients with confirmed COVID-19, preferably in a cohort setting; and
 - Implementing regional plans to transfer patients with COVID-19 to designated healthcare facilities, or alternate care sites with adequate staffing and resources for the patient



- Collaborate with key healthcare and public health stakeholders in the community (including other PALTC facilities, local and regional hospitals and health systems, and state and local health departments) to institute medical operations coordination cells (MOCCs) or other, similar coordination and communication structures that:
 - Act as a single point of contact for requests from multiple stakeholders such as healthcare facilities, and
 - Facilitate movement of patient and resources (e.g., PPE and staff) across the health system to better align demand and capacity for supply



- Modify the crisis communication plan to prevent gaps or lack of communication to authorities, residents and resident representatives, and other stakeholders
- Take steps to prevent staff burn out, encourage staff self-care, and support staff physical, mental, and emotional resilience



Questions ?



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Thank You!

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Kris B Harmony

Knowledge | Inspiration | Motivation

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Month	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17
Total Part A Revenue	\$189,711.70	\$202,597.35	\$228,482.48	\$176,144.00	\$192,332.99	\$148,861.18
Rehab Revenue	\$181,514.58	\$201,631.41	\$227,975.42	\$175,546.71	\$190,248.65	\$146,559,14
Therapy Portion	\$80,465.58	\$83,667.77	\$100,444.39	\$79,055.93	\$86,172.60	\$67,534.29
% Therapy Portion	42.4%	41.3%	44.0%	44.9%	44.8%	45.4%
% Therapy of Total Revenue	95.7%	99.5%	99.8N	99.7%	98.9%	98.5%
N Therapy RUG Days (P)	93.9%	99.4%	99.6%	99.5%	98.6%	97.5%
Part A Rate	\$442.22	\$434,76	\$454.40	\$465.99	\$453.62	\$462.30
% of Max Rate	61.9%	60.9%	65.0%	65.3%	63.5%	64.8%
ADC	14.30	15.03	15.87	13.50	13.68	10.73





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- PDPM Revenue and Risk Analysis
- Medicare Part A Revenue and Risk Analysis
- Five-Star Quality Measure Points Analysis
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