Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
AALNA Section

Importance of infection control and continence management plans in assisted living communities during the COVID-19 pandemic

Ara Sayabalian, Ed.Da,*, Sheri Easton-Garrett, MSN, RN, CDPb, Armen Kassabian, MDc, Margo B. Kunze, RN, CALAd, Melissa Carolyn Bruce, RN-BC, C-ALe

a Director of Clinical Services of TotalDry www.totaldry.com
b SVP of Clinical Services for Belmont Village and a member of the National Board of Directors of AALNA
c Board-certified urologist specialist in Los Angeles with over 20 years of experience
d Secretary Treasurer of the American Assisted Living Nurses Association, President, AL Consulting
e VP Of Community Based Care Clinical Services for Avamere

ARTICLE INFO

Article history:
Available online 4 December 2020

ABSTRACT

A robust and comprehensive infection control plan in a senior living community is a must. Delirium manifestations of Covid-19 and or Urinary Tract Infections, may be confused or misdiagnosed with dementia symptoms in memory care residents. A robust incontinence care program is a key pillar of infection control to reduce symptoms causing hospitalization. Misdiagnosis, transfer infections, acute treatment dementia challenges, worsening incontinence are all risks of residents being hospitalized. A comprehensive incontinence assessment, plan, and education program are all paramount to seeing a reduction in hospitalizations and misdiagnosis of Covid-19 and other symptoms.

An infection control plan (ICP) is complex and multifaceted. A comprehensive ICP must consider all aspects of managing and preventing infections of all types caused by many different circumstances. The American Geriatric Society (AGS) recommends all assisted living (AL) communities implement an infection control plan, as a precautionary measure for COVID-19, which includes advanced hygiene and personal care practices not only for the workforce but also for the residents.1

It is important to have a comprehensive infection control plan to minimize unnecessary hospitalizations, since during transfers, residents can be exposed to COVID-19 as well as other adverse outcomes of hospitalizations. A robust incontinence and infection control plan reduce the risk of infections that cause delirium, leading to a quick and more accurate assessment. In today’s world, symptoms overlap, and diagnosing symptoms can easily be confused with symptoms of COVID-19, Urinary Tract Infection, Dehydration, and manifestations caused by current environments of isolation.

Delirium, also a symptom of COVID-19, is a multi-factorial syndrome, which in most cases results from combined actions of predisposing factors, such as dementia, or precipitating factors such as UTI’s, dehydration and psychological distress. Additionally, delirium occurs often in elders during hospitalization and is often interpreted as dementia and therefore not addressed appropriately. Symptoms of delirium can become more pronounced if the resident is in an intensive care unit where orientation to time is distorted by the continuous medical activities. Elders with delirium might have trouble focusing, reading, or remembering where they are. They may be withdrawn or have trouble falling or staying asleep. You may not be able to understand them when they talk. Additional signs could include being more emotional, experiencing personality changes, and demonstrating depression.

Some symptoms of rash are manifestations of COVID-19.2 Additionally, a poor continence management protocol will exacerbate skin symptoms and issues due to wet skin and increase the risk of Moisture Associated Skin Damage (MASD) pressure injuries, and UTIs.3 While hospitals are often the most appropriate site to address acute care needs, evidence suggests that the resident’s health and safety may be compromised in these settings.3

Inadequate management of cognitive impairment during hospitalizations frequently triggers a cascade of adverse events such as falls, malnutrition, delirium and incontinence7 as well as increased risk of hospital acquired infections, psychological distress and dehydration.7 Hospital providers report they don’t have the time or skills
to implement feeding, toileting or mobility strategies to ensure elders are adequately nourished or their functional abilities maintained. Infection prevention and control must be considered to reduce hospitalizations as well as reduce risk during transfers of residents to and from the hospital. Gram-negative organisms predominate in hospital acquired UTIs, which can prove fatal to elders. Often, anti-biotic therapy use/overuse is the single most important risk factor for development of C. difficile (CDI) infection among elders which is highly contagious. The passing of CDI is easily spread through a memory care unit. As those with dementia do not remember they are contagious, nor do they wash their hands or refrain from touching other residents or their belongings. Many AL residents with acute changes in condition could be safely managed in their community with a good infection control plan, including a robust continence care protocol within the plan. This will help reduce potential physical or emotional trauma within the community, reduce the risk of hospital-acquired infections, or the stresses of transfers, such as delirium, complications of immobility, injurious falls or even possible exposure to COVID-19.

Accidents and lack of proper protection during hospital transfers are times when potential infections can occur. AL settings must comply with and observe all COVID-19 recommendations by the CDC and state-based regulations, restrictions and precautions. Protocols and practices must be strictly adhered to further protect residents during transfers, physician encounters, staff interactions and contact with visitors and outside providers. Complete infection control programs are available on the CDC web site (CDC.GOV/infection control/guidelines and https://www.cdc.gov/longtermcare/training.html). AHAC/NCAL also have infection control programs and training available at: https://educate.ahcancal.org/products/infection-preventionist-specialized-training-ipco.

The creation, development or adaptation of an infection control program and training of staff in this pandemic or any other preventative program or outbreak is paramount to the protection of our residents, staff, visitors and all with contact within a community. Having a comprehensive program is no longer a choice.

**Scenario 1 - Without infection control program**

A resident has frequent incontinence and a history of UTI's. The onset of symptoms is not fully assessed. The family ships products to the AL community for their loved one, as needed basis. The caregivers change the resident as always to the best of their ability, without a clear service plan protocol or training. The resident begins to show signs of delirium and fever.

The primary care provider is unable to visit the resident. No urine culture is collected, and the resident is prescribed antibiotics based on resident’s profile, history, and previous diagnosis. During the antibiotic therapy, the resident develops a Clostridium difficile infection (CDI) with symptoms of diarrhea and dehydration, making delirium worse and must be transferred to the hospital.

Meanwhile, while in the community, other residents have been infected with CDI since it is highly contagious. Once the resident is transferred to the hospital, she is diagnosed with COVID-19. Was the initial delirium caused by COVID-19, UTI, or something else? Did she contact COVID-19 during transfer? A complete contact tracing work was done, and the resident is negative for COVID-19 during transfer? A complete contact tracing work was done, and the resident is negative for COVID-19.

As a result, the resident is prescribed antibiotic therapy, again; however, the antibiotics are ineffective, and the infection becomes septic and the resident goes back to the hospital.

**Scenario 2- With infection control program**

The same resident presents symptoms of delirium. The AL community has and implements a robust/strict infection and infection control program. The nurse assesses the delirium, and checks for fever, which the resident does not have. The nurse obtains orders for a urine culture and it comes back negative. A trained caregiver reports the resident’s skin and perineal area is dry and there are no rashes. The resident is tested for COVID-19, because delirium/mental status change can be a manifestation of the virus, and findings show her delirium is not due to COVID-19.

The well-trained caregivers continue to follow the incontinence care protocol and infection control program of the community. Through consultation, the primary provider follows Infectious Disease Society of America (IDSA) Guidelines and decides against antibiotic therapy because there are no systemic signs of infection. With change in condition, the nurse uses tools to reassess the care plan moving forward. It was ruled the symptoms of delirium are caused by the change in environment due to the pandemic protocols of isolation from relatives and group activities.

Through the step by step following of protocol, it is uncovered that the resident may be suffering from dehydration, which also causes delirium. The resident’s family begins to use technology to improve communication and touchpoints with their loved one. Additionally, the care staff reinforced training on the importance of hydration for incontinent individuals. As a result, she is toileted in advance of need and offered fluids every two hours while awake.

These are two common scenarios for the same resident, with common themes but different outcomes. Both scenarios show the same manifestation of symptoms and the same level of incontinence with two different plans of care and two very different outcomes.

During today’s COVID-19 pandemic, within AL communities, the risk of not implementing a robust infection control plan is simply not worth the possible negative outcomes. A clear Infection Control Plan which includes a clear incontinence care plan is necessary. A key component of the infection control plan must be an incontinence care program, which educates and provides the tools necessary to address an important factor of this Geriatric Giant. Professor Isaac, one of the founding fathers of geriatric medicine described which are the major categories of impaired that appear in elderly, especially as they begin to fail. These include immobility, instability, incontinence and cognitive decline. Unfortunately, families and resident communities willingly discuss all categories of these Geriatric Giants, except incontinence because nobody wants to discuss or implement a program on a topic nobody wants to talk about.

Sayabalian, Easton-Garret, and Kassabian explain how incontinence remains a root cause of a variety of infections and skin damage. Additionally, if a proper and robust incontinence program is not implemented, it is the seed exposing a community to liability due to acceleration of cognitive decline falls and skin damage. Why is it, a family or resident is willing to go the extra mile to discuss diabetes, hypertension or cholesterol of a loved-one, but their incontinence care discussion remains a taboo? Why is it families continue to purchase a value brief or pull-on, but they complain to the AL community of a loved-one’s UTI’s, IAD’s, or odor?

During today’s COVID-19 pandemic, every measure of infection control must be taken to prevent and reduce the risk of any type of infection. In regard to incontinence, a key component of an incontinence care program is not just the products, because products alone are not a program. A good program includes education and training of licensed and unlicensed staff and assessment tools provided to not
only create and implement a plan of care but also to adjust the plan of care if needed. Workforce training, communication and education is key in minimizing spread of infections.12 Peer-reviewed articles state that assisted living residents are at high risk and strict infection control measures should be taken to minimize the risk and spread of infection.13 A simple and robust incontinence management system simplifies a key component of a comprehensive infection control plan, especially during today’s COVID-19 pandemic.

We leave you with these facts:

1. Families do not know the manifestation of poor-quality products purchased online or from a big box wholesaler.
2. Unlicensed caregivers must be educated and trained.
3. Incontinence is a Geriatric Giant rarely discussed or care plans implemented.
4. The liability exposure is high if a community doesn’t have an infections control with an incontinence care program in place.
5. In today’s COVID-19 world, every precaution should be taken to minimize symptoms of delirium, fever and/or skin rashes for quick and correct diagnosis.
6. Proper assessment and diagnosis are essential to minimize transfers to and from hospitals.

As involved as setting up these programs and protocols may be, as hard as the training of staff may be the end result is well worth your time as a nurse leader. You will have increased staff satisfaction for a job well done protecting and caring for their residents. You will find with decreased hospitalizations, reduced readmissions, decreased need for isolation of residents with CDI, integrated toileting programs and continence management your resident satisfaction and outcomes will improve exponentially.

Infection control and continence management programs provide your residents with access to the best we as assisted living communities have to offer; care, safety, health and comfort.

References

1. American Geriatrics Society (AGS) Policy Brief: COVID 19 and assisted living facilities. J Am Geriatr Soc (JAGS). 2020;68(6):1131–1135. https://doi.org/10.1111/jgs.16510.
2. Bouaziz J, Duong T, Jachiet M, Velter C, Lestang P, Cassiue C, Arsoze A, Domerge Than Trong E, Bagot M, Begon E, Sulimovic I, Rybojad M. Vascular skin symptoms in COVID-19: a french observational study. J Eur Acad Dermatol Venereol. 2020. https://doi.org/10.1111/jdv.16544.
3. Ouslander JG, Berenson RA. Reducing unnecessary hospitalizations of nursing home residents. N Engl J Med. 2011;365(13):1165.
4. Ouslander JG, Schnelle JF, Han J. Is this really an emergency? reducing potentially preventable emergency department visits among nursing home residents. J Am Med Dir Assoc. 2015;16(5):354–357.
5. Becker M, Boaz T, Andel R, DeMuth A. Predictors of avoidable hospitalizations among assisted living residents. J Am Med Dir Assoc. 2012;13(4):355–359.
6. Wysocki A, Kane RL, Golberstein E, Dowd B, Lum T, Shipee T. The association between long term care setting and potentially preventable hospitalizations among older dual eligibles. Health Serv Res. 2014;49(3):778–797.
7. Assisted Living and Infection Prevention and Control. Geriatr Nurs (New York). 2020;41(3):343–344.
8. Peleg AY, Hooper DC. Hospital-acquired infections due to gram-negative bacteria. N Engl J Med. 2010;362(19):1804–1813.
9. Salem Schatz S, Griswold P, Kandel R, Benjamin Bothwell S, DeMaria Jr A, McEllroy N, Doron S. A statewide program to improve management of suspected urinary tract infection in long term care. J Am Geriatr Soc. 2020;68(1):62–69.
10. Isaacs B. The giants of geriatrics: a study of symptoms in old age. University of Birmingham; 1976.
11. Sayabalian A, Easton-Garrett S, Kassabian A. Incontinence: a root cause of incidences assisted living nurses try to prevent. Geriatr Nurs. 2019;40(1):111–112.
12. Zimmerman S, Sloane P, Katz P, Kunze M, O’Neil K, Reinchick B. The need to include assisted living in responding to the COVID-19 pandemic. J Am Med Dir Assoc. 2020;21(3):372–375.
13. Applegate W, Ouslander J. COVID 19 presents high risk to older persons. J Am Geriatr Soc. 2020;68(4):681. https://doi.org/10.1111/jgs.16426.