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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. post-COVID world and as we strive to achieve President Biden's National Strategy for Family Caregiving.

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Infection Control in Long-Term Care: An Old Problem and New Priority



The COVID-19 pandemic highlights broken systemic processes within our country's nursing homes (NHs) with tragic outcomes. Staff are responsible for preventing, identifying, investigating, and controlling infections without the proper training and personnel. Early studies have shown that between 40% and 45% of COVID-19–related deaths have occurred in LTC facilities.^{1,2} Morbidity and mortality related to COVID-19 has disproportionately affected older adults residing in LTC facilities.^{1,2} Since the implementation of COVID-19 vaccination protocols in December 2020, a sharp decrease in COVID-19 diagnoses and deaths have been observed in the NH population³; however, ongoing infection control concerns remain. The average NH resident is in their 80s, and these residents face an increased infection risk because of a host of factors including age-related lowered physiologic reserves and weakened immune systems, chronic comorbidities, and congregate housing conditions.²

Current Infection Control Challenges

Infection control concerns within NHs is not a new phenomenon. Viral infections, most notably influenza and noroviruses, are commonly diagnosed in LTC settings.^{2,4} The Centers for Medicare & Medicaid Services (CMS) implemented a tiered approach for new infection control regulations (§483.80) in November 2016 and include a systematic approach to prevention, identification, investigation, and control of infections. However, the regulations do not stipulate the educational requirements for a nurse or the amount of time dedicated to infection control duties, and full implementation of the new regulation has been repeatedly stalled.^{4,5}

Geriatric Education

The COVID-19 death toll of NH residents has ignited a growing demand for ensuring education in geriatric care competencies for all NH staff. There is a crucial need for urgent action to protect and care for older adults in LTC settings. The unique care needs of this vulnerable population have been overwhelmingly demonstrated during the current pandemic. Expertise in care of older adults is developed over time and requires that foundational geriatric knowledge and skills be reinforced and advanced through continuing education and clinical practice. Currently, there is no CMS-mandated geriatric education requirement for licensed practical nurses (LPNs) or registered nurses (RNs) working in NHs.⁶ The only CMS-mandated training requirement is that certified nursing aides (CNAs) complete a 75-hour training program with a minimum of 16 hours of clinical training, demonstrating basic competencies in infection control, residents' rights, and basic nursing skills.⁷ During the pandemic, staff shortages intensified, prompting CMS to waive the 75-hour CNA training and thereby allowing NHs flexibility in determining the number of hours dedicated to educational content and clinical training.⁸

Strategies for Improved Care and Stakeholder Responsibilities

There are multiple stakeholders that each have responsibilities for improving the current situation in NHs, including CMS, Congress, professional organizations, and NH owners and administrators. In response to the disproportionate number of NH residents contracting and dying from COVID-19, a position statement was developed by the Gerontological Advanced Practice Nurses Association, outlining such concerns, and suggesting actionable recommendations. *Addressing Nursing Home Safety During the COVID-19 Pandemic and Beyond* recommendations include changes in NHs that support improving infection control practices, such as staffing and education issues, and the amount and quality of education required for all direct care workers employed at LTC facilities.⁹

Multifaceted strategies are necessary to achieve evidence-based infection control practices and properly trained staff, requiring financial and time commitments from stakeholders. CMS should be accountable for improving the quality of care provided to NH residents as payor and regulator. Improved consistency in surveyor training is needed to decrease geographic variability in cited care deficiencies.⁴ Federal regulations should require adequate staffing ratios based on resident acuity levels calculated from comprehensive assessment data. Higher RN staffing is associated with improved quality measures, such as decreased infection rates.⁵ Reimbursement rates from CMS must be increased and earmarked for enhanced staff training, adequate staff-to-resident ratios, and increased pay for direct care staff. Legislation will likely be

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Table 1

Recommended Actionable Items for Improving Infection Control Practices

Infection control preventionist

• Required Centers for Disease Control and Prevention infection control preventionist training

- Dedicated job without additional administrative or resident care responsibilities
- Registered Nurse or Bachelor of Science in Nursing preferred

Mandated education

- Required training for all nursing and ancillary staff on the aging process and clinical presentation of infections
- Required training for all nursing and ancillary staff on basic infection control
 principles
- Regulatory and reimbursement
 - Minimum staffing ratios linked to comprehensive resident assessment data
 Enhanced surveyor training and oversight for consistency across all
- geographic regions
- Increased reimbursement with mandated infection control preventionist position and staff training allocations

Nursing homes

- Up-to-date policies and procedures addressing infection control practices, infection preventionist role, geriatric education, and staffing ratios
- Regular assessment and professional development to maintain staff's
- competencies related to infection control and geriatric care
- Investment in physical plant updates to enhance the environment for effective infection control practices

Educational institutions

• Form partnerships with local nursing homes to assist in providing up-todate training of nursing home staff

required to raise reimbursement rates and mandate minimum wage and staffing ratios.

Next Steps

Infection prevention and control in NHs is an ongoing problem, brought to new and dangerous light with the outbreak of the COVID-19 pandemic. Crisis is a common motivation for change and now is the time to actively lobby for legislation to protect this vulnerable population. Our collective new priority and responsibility must be enforcement of regulations and policies that enhance infection control and geriatric education, improved reimbursement, and federal mandated staff-to-resident ratios to successfully prevent and manage future infectious disease threats.

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