COMMENTARY

A Significant Step Forward: New Definitions for Surveillance of Infections in Long-Term Care

Maria Luisa Moro, MD

(See the article by Stone et al, on pages 965–977.)

According to a recent European expert consultation, healthcare-associated infections in long-term care facilities (LTCFs) are one of the "eight plausible infectious disease threats with the potential to be significantly more problematic than they are today."[1(p2068)] In fact, LTCFs pose several challenges to infection control, including high prevalence of infections, high rates of colonization with antimicrobial-resistant microorganisms, frequent and inappropriate prescribing of antimicrobials, frequent transfer of residents from the hospital, scarce resources, and absent or poor coordination of clinical and nursing care.[2]

These challenges have long been recognized, but in recent years they have possibly become worse. The growing number of elderly individuals with medically complex situations that require long-term care, the higher proportion of LTCF residents receiving several invasive procedures, and the establishment of new healthcare settings such as long-term acute care hospitals in the United States[3] have significantly increased the risk of infection and created "the perfect storm of antimicrobial resistance."[4(p920)]

Surveillance is universally recommended in LTCFs as a core component of infection control programs,[5] with the aim of increasing the awareness of the problem, establishing an infection control ''presence'' in the facility, identifying critical areas for infection control, determining trends, and identifying and preventing outbreaks in a timely fashion. However, definitions of infections must be adapted to the specific characteristics of this resident population: elderly patients with infections frequently present with clinical manifestations that are different from those of younger adults, such as absent or blunted fever, atypical manifestation of a disease, or a subacute course of disease.[6]

In the past 30 years, the infection surveillance definitions developed by McGeer and colleagues[7] specifically for LTCFs have been widely used in North America and Europe.[8] These definitions were the result of an expert consultation and were developed to be used in facilities that provide homes for elderly residents who require 24-hour personal care under professional nursing supervision. Intravenous therapy or laboratory or radiology facilities are not usually available in these facilities.[7] Not only were the reliability or validity of these definitions not assessed, the populations studied also changed dramatically.

In this issue of *Infection Control and Hospital Epidemiology*, Stone et al[9] present the results of a comprehensive effort to revise the McGeer Criteria. This is a significant step forward, for 3 reasons: (1) after 30 years, new definitions for specific infection sites were developed; (2) harmonization of surveillance across different settings was pursued; and (3) a change in the methodology to evidenced-based criteria and a focus on avoidable infections was established.

The new criteria are based on a structured review of the literature and were reviewed, modified, and approved by members of the Society for Healthcare Epidemiology Long-Term Care Special Interest Group and a panel of outside reviewers. However, "most of the studies were small or uncontrolled,"[9(pXXX)] thus suggesting that additional efforts are needed to improve our knowledge in this field.

Only those infection criteria for which recent and relevant research is available were revised. Criteria for systemic infections, common cold, conjunctivitis, ear infections, sinusitis, and herpes simplex and zoster infections were left unchanged; criteria for influenza were only slightly modified to keep track of cases that occurred outside of the influenza season, as a consequence of the A/H1N1 pandemic. Criteria for gastrointestinal infections were left unchanged, but specific criteria for norovirus and *Clostridium difficile* infections were added. Skin infection criteria were not substantially changed, except in this setting National Healthcare Safety Network criteria for surgical site infections were included. Major changes were made to the criteria for defining respiratory tract and urinary tract infections (UTIs).

The revisions were made with the aim of increasing the specificity and positive predictive value (PPV) of the criteria.

Affiliation: Area Rischio Infettivo, Agenzia Sanitaria e Sociale Regionale Emilia-Romagna, Bologna, Italy.

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