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Prevalence of infections in long-term care facilities: how to read it?

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Source

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Abstract

PURPOSE:

Prevalence surveys are mostly used in European countries for infection surveillance in long-term care facilities (LTCFs). The purpose of this paper is to document the prevalence of infections in LTCFs and to identify and discuss the potential sources of variation in the overall prevalence of infections.

METHODS:

Six repeated prevalence surveys were carried out over a period of 3 years in 11 LTCFs in the Emilia-Romagna region, involving a mean of 812 residents in each survey. In one facility, continuous surveillance was also conducted. McGeer's infection criteria were used. Observers undertook a 1-day training course and on-field training.

RESULTS:

The average prevalence of infected residents was 11.5/100 residents: respiratory tract infections were the most common (5.7/100 residents), followed by urinary tract infections (2.6 %), skin infections (1.9 %), and ocular infections (1.4 %). In a multivariate model, the prevalence significantly varied by season ($p < 0.001$) and residents' case-mix index (CMI, $p < 0.001$). In individual homes, the case mix varied from 0.91 to 1.1 and the observed prevalence varied from 6.6 to 40.4 %. One facility set up and maintained continuous surveillance: three clusters of lower respiratory tract infection were identified in 1.5 years by a temporal scan test. Cases belonging to one outbreak only were captured by the prevalence surveys conducted in the same periods.

CONCLUSIONS:

The prevalence of infections in LTCFs needs to be interpreted cautiously, given the effects of seasonality and case-mix variation. Repeated prevalence surveys may be a good start in individual facilities, but the identification of outbreaks requires a continuous surveillance system.