

who invented the formula assumed that multiple infections in the same patient were independent, which is certainly not realistic for the majority of NIs (in our patient group, however, multiple NIs were very rare).

Secondly, we considered an infection as prevalent as long as the patient was symptomatic or received antimicrobial therapy. This means that, due to differences in the typical duration of antimicrobial treatment in the various hospitals, the chances of a patient being diagnosed as nosocomially infected were not the same in all hospitals.

Third, values for LA, LN, and INT in the discharged patients were calculated from the incidence study data. A number of patients (495 patients, or 17.2%) already were hospitalized when the surveillance period started. In this group, it was not clear whether the NIs recorded were their first. It may thus be possible that the INT for those patients was incorrect.

Another limitation might be the rather short 3-week interval between the different prevalence studies; patients with long-lasting infections already may have been considered in previous prevalence investigations. However, only one patient was recorded in two prevalence studies, and the second diagnosis of NI was due to a new infection.

Different investigators recording NI for the incidence and prevalence study could have been another source of interconvertibility problems.^{15,16} However, the same investigators recording NI for our study also recorded NI in the prevalence and incidence study in the eight hospitals; thus, an investigator effect in diagnosing NI due to varying sensitivity and specificity could not emerge.

Despite the limitations mentioned, the estimate computed by the method of Rhame and Sudderth is confirmed by this study. However, we do not recommend converting prevalence rates to incidence rates or vice versa, even if it is theoretically possible.

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Transmission of HBV in a Nursing Home

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Japanese researcher Mizokami and colleagues conducted a seroepidemiological study of hepatitis B virus (HBV) infection to investigate the seroprevalence of hepatitis B surface antigen (HBsAg) and the transmission routes of HBV infection among residents of a nursing home for the elderly. HBV serum markers were examined in 119 residents and 71 healthcare workers in the institution, and in the control group of 1,330 healthy subjects from the same geographical area.

HBsAg was detected in 6 (5%), 0, and 20 (1.5%) residents, healthcare workers, and healthy subjects, respectively. Four residents (A-D) who had HBV DNA in the serum were studied by molecular evolutionary analysis. The strains derived from residents A, B, and D were clustered within a close range of evolutionary distances. Residents B and D, who were not positive for HBsAg at the time of admission to the institution, subsequently became HBsAg-positive asymptomatic carriers. These results suggested intrainstitutional transmission of HBV in the nursing home for the elderly and confirmed that the source of trans-

mission of HBV to residents B and D was resident A, who was positive for HBsAg.

The authors recommend that residents in a nursing home for the elderly should be considered a high-risk group for HBV infection and should be vaccinated against HBV.

FROM: Sugauchi F, Mizokami M, Orito E, Ohno T, Kato H, Maki M, et al. Hepatitis B virus infection among residents of a nursing home for the elderly: seroepidemiological study and molecular evolutionary analysis. *J Med Virol* 2000; 62:456-462.