

INCIDENT MORBIDITY AND INCONTINENCE IN NURSING HOMES.

Hypothesis / aims of study

To establish the effect of incident morbidity on the development of urinary incontinence (UI) and fecal incontinence (FI) in nursing home patients

Study design, materials and methods

Cohort study with assessment at baseline and at the 3 month follow-up.

All patients aged 65 or over in nursing homes in the state Ohio in the USA were included in October, November, and December 2002. From a total of 101189 patients, 16420 patients (including 2336 with incident UI, 414 with incident catheter) were included in the analysis of UI and 32965 patients (including 7298 with incident FI, 73 with incident ostomy) were included in the analysis of FI. Assessments were done with the Minimum Data Set (MDS) at baseline and 3 months later. Patients were scored UI or FI when there was no complete control for either urine or feces. Toileting skills were scored with the toilet dependency scale (TDS), which is made from the MDS items 'locomotion on the unit', 'toilet use' and 'find the room'. Incident morbidity (also scored with the MDS) was: stroke, hipfracture, congestive heart failure (CHF), mood decline, cognitive decline, and constipation. Patients with incident catheter and ostomy were analyzed separately. Data were analyzed with multinomial regression, adjusted for age, gender, morbidity, and toileting skills.

Results

Incident morbidity was associated with both incident UI and incident FI, which remained significant for stroke (UI;RR 1.77, CI 1.21-2.59 and FI; RR 1.58, CI 1.24-2.01), cognitive decline (UI;RR 1.88, CI 1.64-2.16 and FI;RR 1.91, CI 1.74-2.09), and hip fracture (FI;RR 2.45, CI 1.84-3.27) after adjustment for change in toileting skills. Change in toileting skills is associated with a 6.55 (CI 5.60-7.28) times higher risk of UI and a 3.46 (CI 3.22-3.72) times higher risk of FI. UI at baseline is associated with a 6.84 (CI 6.40-7.31) times higher risk of FI, independent of change in toileting skills.

Interpretation of results

This study showed that incident morbidity is associated with UI, and FI, independent of loss of toileting skills. This suggests that other factors than loss of toileting skills contribute to the development of incontinence. The risks were highest for stroke, cognitive decline and hip fracture, and lowest for mood decline and constipation.

Concluding message

Incident morbidity has considerable influence on the development of UI and FI, independent of loss of toileting skills, which proved to be a very important factor. UI at baseline is associated with a high risk of developing FI.

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	Use of a datasource
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No