The Effects of a Multi-intervention Incontinence Care Program on Clinical, Economic, and Environmental Outcomes

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Purpose
The aim of the study was to assess the effects of a multi-intervention program consisting of use of new absorbent products (TENA Flex), a structured skin care regimen (TENA Wash Cream, Barrier Cream, Zinc Cream, Wash Mouse and TENA Wet Wipe), and nursing advice on clinical (incontinence-associated dermatitis [IAD]), economic, and environmental outcomes.

Subjects and setting
The study setting was a nursing home in northern Italy. Sixty-three patients with urinary incontinence participated, including 46 women and 17 men. Their average was 84.0 ± 9.1 years (mean ± SD). Thirty-five participants were entirely dependent on others for activities of daily living, such as bathing or dressing.

Design
Single-group, pre-/postintervention study.

Methods
The multi-intervention program was implemented in 3 phases: (1) initial assessment of incontinence care (phase 0, baseline measurement), (2) introduction of new absorbent products for incontinence and a structured skin care regimen (phase 1), and (3) introduction of advice provided by continence nurses (phase 2). Data was collected over a period of 59 days.

Results
All 63 subjects were found to have IAD at baseline. When compared to baseline measurement, the relative risk of IAD following implementation of phase 1 (new absorbent products and structured skin care regimen) was 0.24 (95% confidence interval [CI], 0.16-0.35). Adding advice from continence nurses during this final phase (2) of the study further diminished the relative risk of IAD to 0.15 (95% CI, 0.04-0.59). In addition, the relative risk of IAD was 0.03 (95% CI 0.01-0.12) when the complete intervention (new absorbent products, structured skin care regimen, and continence nurse advice) was compared to baseline measurement. Baseline evaluation revealed that incontinent residents used an average of 5.19 absorbent products, at a mean cost of € 1.79 per day. Following introduction of the multi-intervention program, the mean number of absorbent products consumed per day was 2.02 per incontinent patient, at a mean cost of € 0.97 per day. In addition to these clinical and economic outcomes, implementation of the multitreatment program reduced the daily production of waste generated by the nursing home from 33 to 11 kg/d.

Conclusions
Results of this study suggest that a multi-intervention program, including introduction of new absorbent products, a structured skin hygiene program, and advice from continence nurses, reduce the relative risk of IAD, absorbent product use, and generation of waste materials.