AutomaTed Incontinence Detection and Notification

Incontinence Management System: Use Significantly Reduces Incontinence Exposure Time

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Abstract

Purpose

Studies have shown that, after exposure to incontinence, healthy subjects exhibit signs of skin breakdown within 15 minutes. Incontinence associated dermatitis (IAD) is an independent risk factor for pressure injury (PI), and patients with IAD are more likely to have full-thickness PI.

Method

In a controlled study, we compared patients’ exposure time to incontinence events during blinded (control) and unblinded (intervention) phases of an incontinence management system implementation that detects presence of incontinence events in real-time. In the unblinded phase, nurses were alerted to event detection via the nurse call system. The duration of the control and intervention arms were 54 days and 93 days respectively.

Results

A total of 1548 incontinence events were identified: 507 during the blinded phase and 1041 during the unblinded phase. Comparison of the average exposure time in the blinded phase to that of the unblinded phase, there was a significant decrease (from 123 minutes to 18.9 minutes; P<0.001).

Conclusion

Use of the incontinence management system to detect and notify nurses of incontinent events was associated with a statistically significant decrease in exposure time.

Background

- Incontinence associated dermatitis (IAD) is an independent risk factor for pressure injury (PI).
- Patients with IAD are more likely to have full-thickness PI.
- Signs of skin breakdown are seen within 15 minutes exposure time in healthy subjects.
- IAD increases PI risk up to 6 times. Studies have shown exposure to incontinence leads to signs of skin breakdown within 15 minutes.
- Incontinence associated dermatitis (IAD) is an independent risk factor for pressure injuries (PIs) and full-thickness pressure injuries.
- Mean exposure time decreased from 123 minutes in the blinded phase to 18.9 minutes in the unblinded phase (P<0.001).

Conclusions

- Exposure to incontinence significantly decreases exposure time to incontinence events (123 minutes to 18.9 minutes).
- Further studies are necessary to determine whether the use of the incontinence management system significantly decreases IAD and PI risk.

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References