+ Evidence in focus

Poster summary

Smith-Nephew

LEAF^o Patient Monitoring System helped significantly reduce the risk of pressure injuries (PIs), compared with the standard of care, in a meta-analysis of clinical publications

Nherera L. Meta-analysis shows patient wearable sensor reduces incidence of hospital acquired pressure injuries in critically ill patients. Poster presented at: Symposium on Advanced Wound Care Fall 2022; October 14–16 2022; Las Vegas, NV, USA.

Key points

In a meta-analysis of clinical studies, compared with standard of care, the LEAF System resulted in a:

94% reduction in PI risk across 3,935 patients overall (relative risk [RR]: 0.06; p=0.02)



Significant reduction in PI risk irrespective of study design (sensitivity analysis; $p \le 0.01$)

Overview

- Systematic literature review to identify full clinical publications comparing the LEAF System with standard of care for PI prevention, in acutely ill hospitalized or nursing home patients, followed by meta-analysis of PI incidence
- Standard of care included traditional turning care and following PI guidelines
- RR for PI was assessed with the LEAF System versus standard of care for all included publications (primary analysis) and by study design (sensitivity analysis)
- Of the 658 studies identified, three were included (n=3,935 patients); one randomized controlled trial (RCT) and two observational studies
 - Most patients were older than 75 years

Results

- The LEAF System significantly reduced the risk of PI by 94%, compared with standard of care (p<0.02; Figure)
- Sensitivity analyses showed that, in comparison to standard of care, the LEAF System was associated with a reduced risk of PI irrespective of study design (Figure):
 - A 72% reduction in risk of PI was observed in the RCT study (p=0.01)
 - A 97% reduction in risk of PI was revealed in observational studies (p<0.00001)

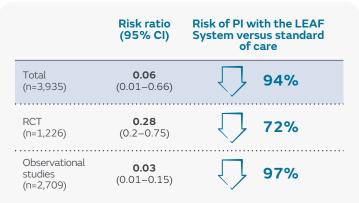


Figure. Relative risk of PI development with the LEAF System compared with standard care across different study groups CI: confidence interval

Conclusions

The LEAF System helped to significantly reduce the risk of PIs, compared with standard of care, across 3,935 hospitalized and nursing home patients in a meta-analysis of clinical publications. A significant reduction in PI risk was seen across clinical study designs assessed.

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