

STARS Education and Research Alliance

CREATING KNOWLEDGE | TRANSFORMING CARE

STARS Critically Appraised Topic (CAT) Group: Skin Integrity

Specific Question:

What interventions are most effective in reducing skin tear rates in older adult inpatient rehabilitation/aged care settings?

Clinical Bottom Line

The application of leave-on products containing glycerine and petrolatum and regular application are most effective in reducing skin tears rates in older adults. This evidence is primarily drawn from older adults in aged care settings rather than inpatient rehabilitation settings.

Why is this important?

Older adults often experience skin barrier issues such as reduced natural moisturizing factors, that may result in dry skin and epidermal and dermal thinning; this in turn leads to higher risk for shearing injuries such as skin tears. Disruption of skin integrity can result in increased patient discomfort, complex treatments, and longer length of stay.

Inclusion Criteria

Older adults, inpatient rehabilitation setting, aged care setting

Search Dates

2011 -2021

Types of Studies

Systematic reviews, RCTs, prospective cohorts

PICOT

	Description	Search terms
Population and Setting	Older adults in inpatient rehabilitation or aged care	Aged, aged, geriatric, older, frail elderly
Intervention or Exposure	Skin tears	Skin/physiopathology AND Tear, lacerations/therapy, soft tissue injuries
Comparison, if any	No skin tears	
Outcomes of interest	Reduction in skin tear rates	
Types of studies	RCT/cohort studies, systematic reviews, scoping reviews	Randomized controlled trial OR placebo OR clinical topic OR systematic review

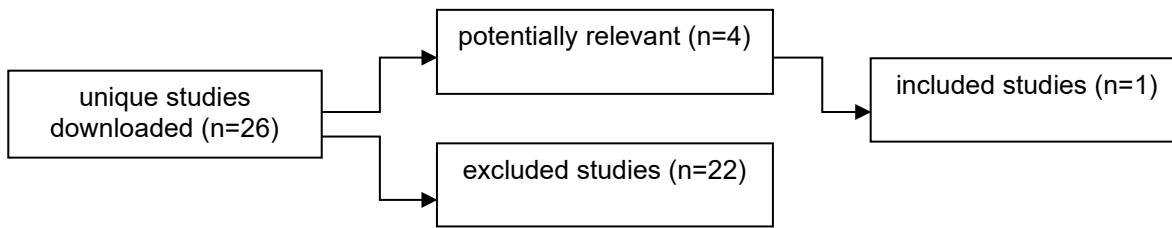
Databases Searched

PubMed (n=122), Embase (n=59), CINAHL (n=114), Cochrane (n= 39)

Date of Search

21/10/2021

Results



First Author, year, and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Lichterfeld-Kottner, 2020; Systematic Review (this was an update of a previous systematic review published 2013)	Aged nursing care recipients	Primary prevention studies reporting prevention effects of basic skin care strategies in aged people -outcome domains and -outcome measurement instruments	Volume of studies: 63 studies (RCTs, quasi-experimental designs) were included in the review in total (up to 2018) only 5 were focused on preventing skin tears, of which only 1 was an RCT (Carville et al 2014) providing best evidence to answer this question. It was not possible to combine the results of the 5 studies into a meta-analysis due to heterogeneity in treatments and outcome measures. Clinical Bottom Line: Formulations containing glycerine and petrolatum reduced the incidence of skin tears.	Studies assessed using Cochrane Collaboration's Tool for assessing risk of bias and levels of evidence assigned Systematic review paper itself assessed using CASP Systematic Review checklist.

Summary

There were no studies specific to inpatient rehabilitation settings. Of all the skin care strategies for older adults assessed in the studies included in this systematic review, two demonstrated a positive effect on improving skin barrier and only one specific to formulations containing glycerine and petrolatum reduced the incidence of skin tears.

Implications for Practice

The results from this CAT will be presented to the implementation of care committee and care continuum committee in STARS. These findings present an achievable intervention to reduce the rate of skin tears. The next steps will include:

February 2022

Analysis of the STARS inpatient rehabilitation cohort to discover how regularly we apply glycerine and petrolatum-based moisturisers to older adults' skin.

Reviewing our skin tear and skin care procedures to reflect this evidence

March 2022

Disseminating our findings to clinical areas, educators, and medical officers to increase awareness and implement this evidence into clinical practice

April 2022

Developing a research protocol to investigate whether these moisturisers are as effective as limb protectors at reducing the incidence of skin tears.

November 2022

Reviewing our data again in one year to see how well this evidence has been incorporated into practice and to investigate the effect of this intervention in reducing skin tears in the STARS patient cohort.

What would you tweet? (140 characters)

The regular application of leave-on products containing glycerine and petrolatum are most effective in reducing skin tears rates in older adults

Critical Appraisal Topic Group Team Members

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References

Lichterfeld-Kottner, A., et al. (2020). **Maintaining skin integrity in the aged: A systematic review.** International Journal of Nursing Studies **103**: 103509.