A Comparison of Two Different Skin Care Product Lines on Incontinence Associated Dermatitis Rates and Hospital Acquired Pressure Ulcers in an Intensive Care Unit

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INTRODUCTION
- Incontinence Associated Dermatitis (IAD) presents as a challenge as it:
  - may be painful
  - may increase the risk of infection
  - may increase pressure ulcer (PU) development
- IAD is often mistaken for Stage I and II PUs
- While there is an extensive body of knowledge regarding pressure ulcer prevention (PUP) guidelines, no standards have been set for IAD prevention guidelines. Our study sought to implement and evaluate the effect of clinical education and new micronutritional skin care products on IAD rates, IAD severity and hospital acquired pressure ulcer (HAPU) rates, in an intensive care unit.

METHODS
- The study was conducted over a 4 month time period:
  - 2 months using the facilities’ previously used skin care products*
  - 2 months using a new micronutritional skin care product line†
- A CWOCN examined all ICU patients, weekly for IAD and IAD severity and monthly for HAPU
- IAD was identified and scored using the Incontinence Associated Dermatitis and its Severity Instrument.
- Staff Registered Nurses and Patient Care Assistants were tested on skin care and PU knowledge pre and post clinical education and training, using an established prevention program**
- Comparisons of IAD rates, IAD severity and HAPU rates were concluded between the 2 month time periods using the micronutritional skin care products and the previously used skin care products.

RESULTS
- The rate of IAD was significantly higher for patients treated with previously used skin care products (mean=40.4, SD=14.2) compared to those treated with micronutritional products (mean=18.7, SD=13.0), t(13)=3.06, p=0.009.
- There was no significant difference in the severity of IAD for patients treated with previously used skin care products (mean=6.2, SD=2.78) compared to those treated with micronutritional products (mean=6.25, SD=4.50), t(55)=-1.92, p=0.060.
- Staff Registered Nurses scored significantly better on the skin care exam following training (pre-exam mean score 58.5%, SD=12.3; post-exam mean score 95.8%, SD=5.9; t(126)=30.9, p<0.0001).
- Length of Stay was significantly longer for patients treated with previously used skin care products (mean=20.9, SD=17.5) compared to those treated with micronutritional products (mean=12.1, SD=11.2), t(78)=2.77, p=0.007.
- There was no significant difference between HAPU rates with previously used skin care products (mean=3.77%, SD=3.82%) and with micronutritional products (mean=5.38%, SD=5.93%), t(29)=-0.902, p=0.374.

CONCLUSION
- The implementation of micronutritional skin care products combined with clinical education proved to be beneficial for IAD reduction.
- The was no change in the severity of IAD once it developed.
- There may be a relationship between IAD and increased hospital LOS, which needs further investigation.
- HAPU reduction efforts were insufficient to effect change in this study.
- Previous success in HAPU reduction using a micronutritional skin care regimen has been observed with longer product use.

REFERENCES

* Secura is a registered trademark of Smith & Nephew, Inc.
† Medline Remedy is a registered trademark of Medline Industries, Inc.
** Pressure Ulcer Prevention Program (PUP) from Medline Industries, Inc.