Instrument-Testing Validation Study in the Clinical Setting: Incontinence-Associated Dermatitis Severity Instrument

Chenel Trevellini MSN RN CWOCN Philomena Grossmann MSN RN CCRN St. Francis Heart Center™, Roslyn, New York







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Introduction

Reducing use of indwelling urinary catheters (IUC), may have the untoward effect of increasing the incidence of Incontinence associated dermatitis (IAD). In fact an aggressive campaign to reduce IUC utilization in acute care 300+ bed Magnet designated hospital was experiencing this clinical problem. Accurate identification and classification of IAD drives appropriate prevention and treatment interventions. When IAD lesions are inappropriately classified as pressure ulcers, healthcare agencies risk regulatory fines, reduced reimbursement, and litigation. Borchert and colleagues developed/tested the incontinence associated dermatitis severity instrument (IADSI), published research results demonstrated good inter-rater reliability; however recommendation was made for further study in various clinical settings.

Research Question

"What is the intra rater reliability of the Incontinence-Associated Dermatitis and its Severity Instrument when rated by the Certified Wound Ostomy Continence Nurse (CWOCN) Specialist on patients in the critical care area?"

the inter-rater reliability of "What Incontinence-Associated Dermatitis and its Severity Instrument when rated by the CWOCN Specialist as compared with nursing group without certification in wounds (clinical nurse, CNS, NP)?"

Methods

Quantitative Design Instrument development testing study of IAD-SI tool

Procedures

Phase I and Phase II

Inclusion Criteria

- Critical Care Patients and/or IMCU Patients
- Able to give informed consent
- Or proxy was able to give informed consent

Exclusion Criteria

- Non-critical Care Patients
- Non- IMCU Patients
- Unable to obtain informed consent from patient or proxy

Phase I

- 80 patients recruited
- 77 patients included in study
- 1 patient discharged before assessment
- 2 patients withdrew
- CWOCN rater/tester completed IADSI for 77 patients
- Each patient was assessed 2x within 1 hr timeframe
- Data collected over 5 week time frame

Phase II

- 66 patients recruited
- 63 patients included in study
- 1 patient discharged
- 2 patients withdrew

IADSI Raters/Testers

During **phase II**, there were clinical nurses, Clinical Nurse Specialist, and CWOCN specialist who tested the tool. Listed below are some of their demographics:

	#	BSN	MSN	AAS	National Nursing Certification	Total Accumulative Years of RN Experience
CN	18	11	4	3	10	195.5
CNS	5	0	5	0	5	25
CWOCN	1	0	1	0	1	17

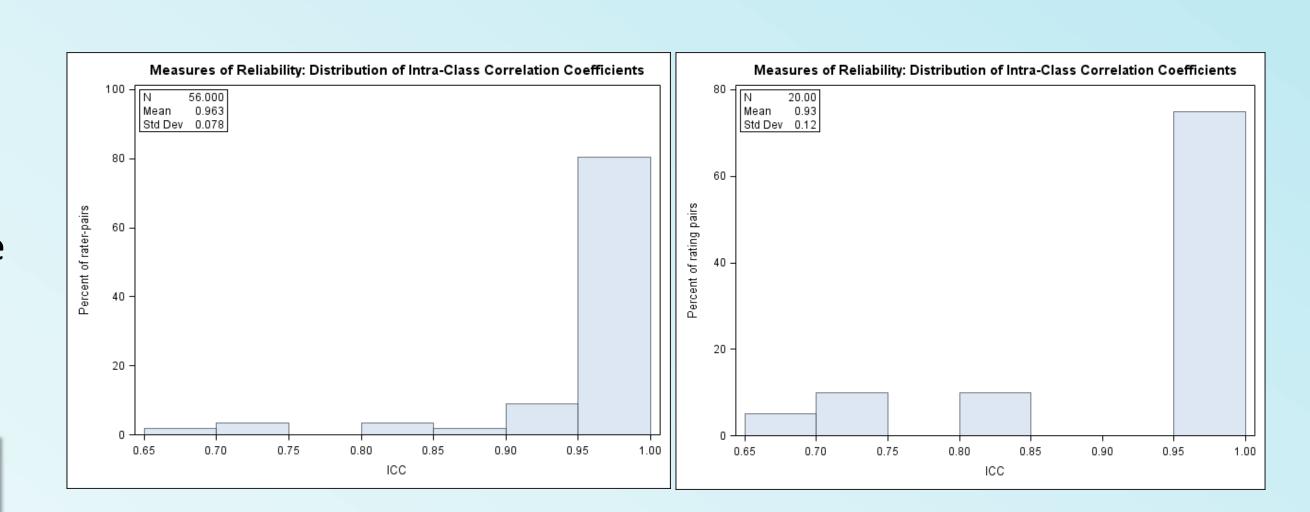
Results

Phase I

The Intra-class Correlation Coefficient of WOC Nurse IADSI Scores						
IADS Scoring Categories	Intra-class Correlation Coefficient					
IADS WOC Nurse Total SCORE	0.99					
IADS WOC Nurse -01 Perianal skin	0.98					
IADS WOC Nurse -02 Crease between buttocks	0.99					
IADS WOC Nurse -03 Left lower buttock	0.98					
IADS WOC Nurse -04 Right lower buttock	0.89					
IADS WOC Nurse -05 Left upper buttock	0.89					
IADS WOC Nurse -06 Right upper buttock	0.91					
IADS WOC Nurse -07 Genitalia (labia/scrotum)	0.99					
IADS WOC Nurse -08 Lower abdomen	0.87					
IADS WOC Nurse -09 Crease between genitalia and thigh	0.95					
IADS WOC Nurse -10 Left inner thigh	0.99					
IADS WOC Nurse -11 Right inner thigh	0.94					
IADS WOC Nurse -12 Left posterior thigh	0.99					
IADS WOC Nurse -13 Right posterior thigh	0.98					

Phase II

There were 3 nursing research assistant raters who were removed from analysis due to the limitation of completing only one assessment with the WOC Nurse expert. The remaining 20 nursing research assistant raters scored at least four assessments with the WOC Nurse expert. Overall agreement in the IADS total score between each of the 20 nursing research assistants and the WOCN specialist was excellent (with 3 exceptions; ICC of 0.70, 0.70, and 0.67). The mean ICC across these pairs was 0.96 with a standard deviation of 0.08. The median was 0.995. Reliability Rating Excellent =>0.9, Good, =>0.8, Moderate =>0.7

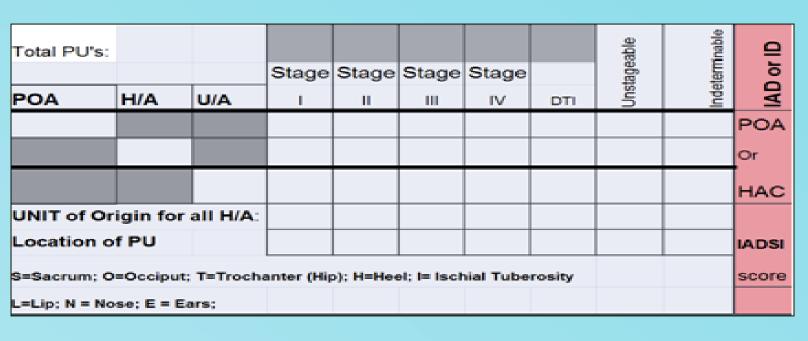


All analyses were conducted using SAS v.9.3 (SAS Institute, Inc, Cary, NC)

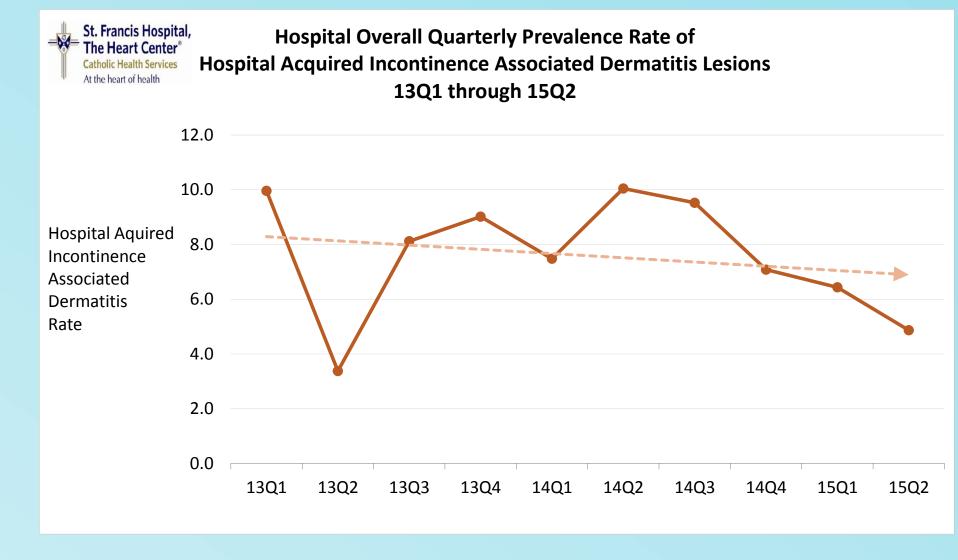
Implications for Practice

Reduce or avoid the use of indwelling urinary catheters, potentially causing IAD. Validate a tool for use in planning patient care for incontinent patients. Greater improvement with incidence of incontinent associated dermatitis (IAD) with the use of a reliable tool to measure severity. Reduce, objectively monitor and provide consistent treatment for IAD.

- EMR Daily assessment for incontinent patients
- Monthly point Prevalence & Incidence study to include IADSI score



- Track & trend progress of innovative microclimate focused interventions
- Future research with bundled microclimate focused interventions



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