Observational Tool for Research of Ultrasound Guided Peripheral Catheter Barrier and Securement Dressing

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Purpose/Design:

The purpose of this qualitative observational tool is to assess the ease of use of a barrier and securement dressing in the clinical setting during ultrasound guided peripheral catheter insertion (UltraDrape™ UGPIV Barrier and Securement dressing, Parker Laboratories, Fairfield, NJ). **(Figure 1)**

Methods:

The tool is designed for application in a hospital cohort of difficult access intravenous patients selected for ultrasound guided insertion of a peripheral or midline intravenous device. This validated psychometric item scoring Likert five-scale tool facilitates collection of data from inserting clinician oral responses tabulated by a researcher during the procedure. Data provides the opportunity for analysis with rank, median and ranging results.

Figure 1

Results:

Results of the observational study are analyzed and converted into a continuous variable with a calibrated line to indicate responses to each question. Responses to evaluation questions of intuitive use, application ease, facilitation of aseptic technique, image quality with ultrasound, comparison with probe cover and time savings, avoiding needlestick, gel management, need for assistant, successful procedure and recommendations fall into performance categories. Comments on the tool are included as an evaluation of support of the key elements or reflective of difficulties in the procedure.

Limitations:

Responses associated with qualitative research are subjective in nature, based on opinion and judgment of the individual. Qualitative assessments present limitations in the dependence on individual skill of the researcher and are easily influenced by personal bias. Likert scales contain multiple items and are therefore likely to be more reliable than single item. (1,2)

Conclusions:

The results will suggest or deny that clinicians found the dressing intuitive, easy to apply and use with gel and ultrasound facilitating the aseptic non-touch technique.

1. Allen IE, Seaman CA. Likert scales and data analyses. Quality progress. 2007 Jul 1;40(7):64.
2. Brown JD. Likert items and scales of measurement. Statistics. 2011 Mar;15(1):10-4.

Evaluation of UltraDrape™ Securement Barrier Experience

Clinician Performing Insertion: _____ Date: ____/____/____ Patient age ____ gender ____ diagnosis _____

Using the tool below, rate the performance of the dressing experience.

A - Excellent B - Above Average C - Neutral
D - Below Average E - Poor N/A - Not Applicable

1. How intuitive and clearly labeled were the instructions on the UGPIV Dressing?	A	B	C	D	E	N/A
2. In applying the UGPIV Dressing to the skin, was it easy to correctly position in relation to the intended insertion area or marked site?	A	B	C	D	E	N/A
3. How well did the UGPIV Dressing functionally separate ultrasound gel from the insertion site and provide an adequate barrier?	A	B	C	D	E	N/A
4. How well did the UGPIV Dressing facilitate the Aseptic Non-Touch procedure for limiting contamination of the insertion site?	A	B	C	D	E	N/A
5. How was the image quality for the UGPIV Dressing in comparison without UGPIV Dressing using skin/gel contact?	A	B	C	D	E	N/A
6. How would you rate ease of use with the UGPIV Dressing in comparison with a sterile probe cover?	A	B	C	D	E	N/A

7. What was the level of savings with time, ease of use and quantity of gel with UGPIV Dressing versus sterile probe cover?	A	B	C	D	E	N/A
8. In terms of avoiding puncture of the UGPIV Dressing and risk of needlestick to the provider, how did the dressing perform in relation to a sterile probe cover?	A	B	C	D	E	N/A
9. How clean was the skin when you adhered the dressing (without leaving any residual gel on the skin that could promote dressing failure and device dislodgement)?	A	B	C	D	E	N/A
10. How well would the UGPIV Dressing reduce your need for another assistant with the procedure?	A	B	C	D	E	N/A
11. Did the UGPIV Dressing contribute to a successful procedure and how well did it perform?	A	B	C	D	E	N/A
12. My overall recommendation of this dressing for use with ultrasound guided catheter insertion is?	A	B	C	D	E	N/A

Comments, any issues with performance of the UGPIV Dressing?

Other notations about device performance, i.e. problems, bubbles affecting visualization, difficulty maintaining sterile/no touch procedure?

What was your favorite feature with the UGPIV Dressing?

What did you like most? _____