CLINICAL EVIDENCE

The SorbaView® SHIELD is a Useful Product for Use in Perioperative Management

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Background
We studied the stability of the continuous arterial pressure line (A line) achieved by using a catheter securement device.

Methods
A total of 100 patients requiring an arterial catheter were divided into 2 groups of fixation: (1) fixation achieved by using the SorbaView SHIELD (Centurion Medical Products Corporation, USA) and (2) fixation by using Tegaderm 3M (Tegaderm 3M, Japan). We analyzed the stability of the fixation, presence or absence of skin disorders, and the preference by nurses.

Results
The SorbaView SHIELD was superior judged by nurses and was found to render more stability to the fixation of the A line as compared to Tegaderm 3M, especially when transferring a patient into the intensive care unit after surgery.

Conclusions
We conclude that stability of the A line maintained by the use of the SorbaView SHIELD is more effective in maintaining the stability of the A line.

Summary
- Study Location: Saitama Medical University International, Japan (ICU, Anesthesiology, and Surgery departments)
- Objective of Study: To determine whether SorbaView SHIELD (an ISD - Integrated Securement Dressing) provides stable securement and waveforms for A-lines, compared to current practice Tegaderm
- Catheters Used: PIA - Peripheral Intra Arterial (20ga & 22ga) connected to remote Stopcocks via tubing
- PIA Site Location: On forearm, midway between antecubital fossa and wrist.
- Number of Patients: 100 total - (50) with SorbaView SHIELD and (50) with Tegaderm.
- PIA Dwell Times: 53.5 hrs. SHIELD/48.3 hrs. Tegaderm, with the maximum time on any of the 100 patients of less than three days (72 hours)
- Patient Average Age: 66.5 yrs. SHIELD/65.7 yrs. Tegaderm
- Incidence of Skin Irritation at Catheter/Dressing Removal (< days): 0 out of 100 patients
- Nurse opinions on SorbaView SHIELD: (34) easier to use; (8) no difference; (1) more difficult; (7) no response

Key Points
- Stability of the securement of arterial line at (4) different check/assessment times (two before surgery and two after surgery)
- The study's criteria and measure of the integrity of the securement used IS:
  - The number and percentage of patients who did NOT exhibit a NORMAL arterial BP waveform: SorbaView SHIELD (SV233DBSXT), 3/50 patients = 6% vs. Tegaderm, 14/50 patients = 28%
- Conclusion: Tegaderm had a (28-6)/6 x 100% = 367% higher occurrence of ABNORMAL BP waveforms than SorbaView SHIELD. Conversely, SorbaView SHIELD had a (14-3)/14 x 100% = 79% lower occurence of ABNORMAL BP waveforms.

For more information, go to https://www.ncbi.nlm.nih.gov/pubmed/26422948