

Fluid Resistance Properties of the TIDIShield™ Disposable Pillow Barrier

INTRODUCTION

Hospital beds and in particular hospital pillows pose a patient risk if not appropriately disinfected and maintained. Spills, body fluids, and blood can easily contaminate a pillow that is only protected by a linen cover. This contamination can pass through the linen and expose the pillow to contamination that may or may not be removed by cleaning at a later date. For patient protection, it is important that the materials used to cover reusable patient pillows do not allow the pass through of fluids.

PURPOSE

The purpose of this study was to evaluate the design of the TIDIShield Disposable Pillow Barrier for its ability to resist penetration by fluids.

MATERIALS AND METHODS

An 18"x18" cut sample of the TIDIShield material was placed into a 20 fluid ounce beaker with the fabric side up. 100cc of H₂O was poured directly onto the fabric side of the sample paying attention to not let the water wick up the sample to the cut edges. At the following intervals (1, 3, 6, 24 and 48 hours) the sample was removed from the beaker by holding the top edges to keep the fluid in the inside area. The bottom of the sample and the inside of the beaker were visually inspected for moisture or fluid pass through.

RESULTS

The sample tested demonstrated zero pass through of liquid after 48 hours.

TABLE

1 Hour	3 Hours	6 Hours	24 Hours	48 Hours
0 fluid pass	0 fluid pass	0 fluid pass	0 fluid pass	0 fluid pass



CONCLUSION

The TIDIShield Disposable Pillow Barrier is an effective barrier protecting the pillow that it covers from fluids and splashes that are present in the hospital environment.