stryker

IsoFlex® SE

Premium shear management

IsoFlex SE, featuring ShearGel technology, provides a 30% reduction in shear force compared to ComfortGel SE.

Situation

With 2.5 million patients diagnosed with pressure injuries every year[1] at an estimated treatment cost of $11 billion,[2] facilities are focused on preventing these prevalant and costly never events. Shear, in combination with pressure and micro-climate imbalance, are major contributors to the development of pressure injuries with some estimating that pressure injuries are twice as likely to develop when shear forces are present.[3] Stryker utilized the research done around shear testing developed by the Support Surface Standards Initiative (S3I), a national consensus group formed in part to help healthcare providers choose support surfaces with features that have the ability to help reduce the incidence of pressure injuries in a clinically relevant way.[4]

Test purpose

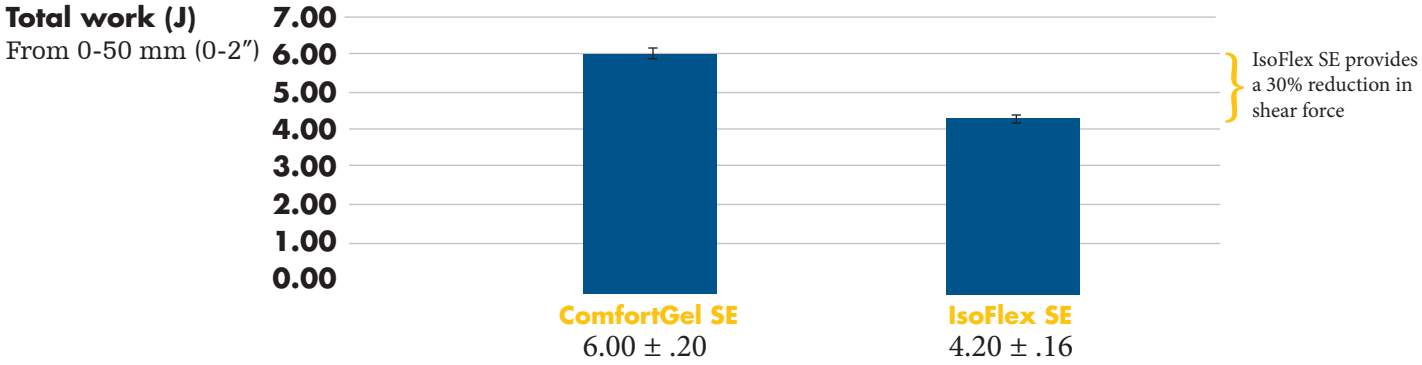
Shear, as defined and measured in this test, is the resistive force to a body's movement along the top layers of the support surface. Work is the unit of energy that we use to capture this resistance. The less work recorded, the less resistance, or shear force, felt by the body as it moves on the support surface. Because shear force is a contributing factor in the development of pressure injuries, reducing shear force has the ability to assist in pressure injury management.

Test protocol

In this shear test, for both IsoFlex SE and ComfortGel SE, we followed the S3I draft protocol which evaluates shear by simulating a body sliding on a support surface. The test was performed for Stryker by an external lab, EC Services. All test surfaces were oriented with HOB (head of bed) at 30 degrees which represents the typical resting position of a patient on a support surface. Shear performance was calculated as the total work required to move the simulated body from 0-50mm (0-2″).

Test results

The results of the third party shear test showed that Stryker's IsoFlex SE support surface, featuring ShearGel technology, required less total work or amount of energy to move a body on a support surface, than Stryker's ComfortGel SE support surface. Both support surface models were tested using three different units, each tested five times, with the results being the average of these tests.



Conclusion

IsoFlex SE provides a 30% reduction in shear force compared to ComfortGel SE.

References
1. Agency for Healthcare Research and Quality http://www.ahrq.gov/professionals/systems/hospital/pressureulcer toolkit/putool5.html Last accessed November 13, 2015.
2. National Pressure Ulcer Advisory Panel, & European Pressure Ulcer Advisory Panel (Eds.). (2009). Prevention and treatment of Pressure Ulcers: Clinical practice guideline. Washington, DC: NPUAP
3. Lyder, Courtney H. (2011) The Benefits of a Multi-Disciplinary Approach to the Prevention and Treatment of Pressure Ulcers. Infection Control Today http://www.infectioncontroltoday.com/news/2011/08/the-benefits-of- a-multi-disciplinary-approach-to-the-prevention-and-treatment-of-pressure-ulcers.aspx
4. National Pressure Ulcer Advisory Panel; Shear A contributory Factor of Pressure Ulceration 2012

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