Medical

Independently Tested At:
Workplace Ergonomics Consulting

Background
The Nursing occupation (Nurses and Aides) has one of the highest injury rates of any profession\(^1\). Nurses are nearly 4 times more likely than the average population to experience a work-related back injury\(^2\). Repositioning patients within the bed is a leading contributor to this increased rate\(^3\). The last decade has seen advances in the technology to reposition patients, but this technology does not address the root cause of why a patient needs to be repositioned. One factor that has been speculated to impact patient movement within the bed is the design for the articulation of the bed. Some bed designs may minimize the displacement of the patient during the articulation of the bed from flat to an elevated head and back.

Study
HumanTech, Inc. is the nation’s largest workplace ergonomics consulting firm. In their study they evaluated patient displacement in a MedSurg bed, as the head of bed is raised. For the study they compared the Stryker S3 with a StayPut retractable frame and the Hill-Rom Advanta II with a pivot frame.

Results
After testing nineteen subjects ranging in height from 62.5” to 75.5” and ranging in weight from 119 pounds to 324 pounds the results significantly favored the S3 with StayPut frame. The Advanta II produced 103% more patient displacement after only 5 bed articulations, possibly requiring more patient repositioning from caregivers.

Stryker S3 Exclusives
- Only-in-class StayPut retractable frame design
- Best-in-class siderail coverage
- Only-in-class Seat and Stand Assist Siderails
- Centrally located brake system
- One-touch scale system
- Chaperone\(^\text{®}\) Bed Exit System with Zone Control\(^\text{®}\)
- Only-in-class iBed\(^\text{®}\) Awareness Bed Monitor
- Open architecture design

2. Fragaia, G (2002) NIOSH healthcare stakeholder meeting update, J of the Assoc Occ Health Prof in Healthcare, 22(2), 11-13