

Head Protection Device (HPD) Compliance Prediction for Elderly Patients with Fall Risk

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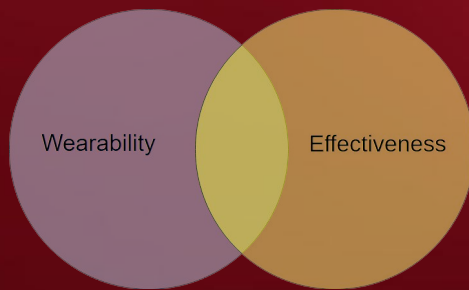
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Elderly falls are common and associated with high morbidity and mortality. In particular in patients who are on anticoagulants.

Screening and targeted interventions have had only a modest impact in preventing falls.

Head protection devices (i.e. helmets) have a long history of use in preventing head injury.

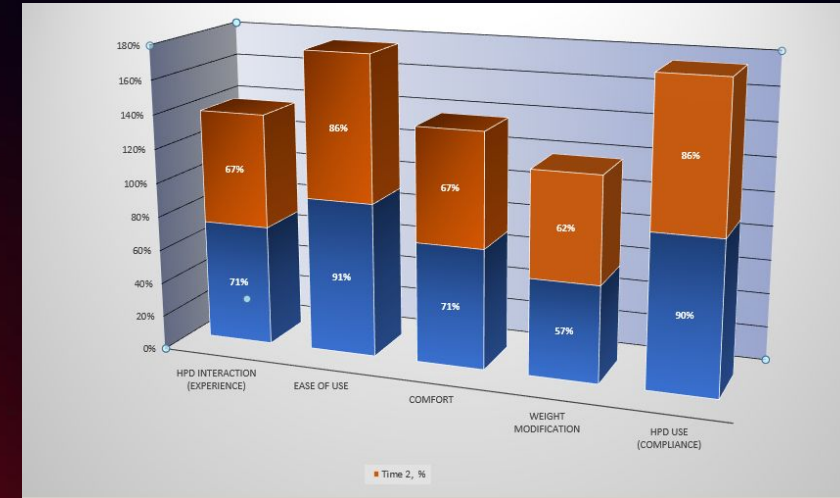
To ensure compliance, a head protection device would have to be comfortable enough for an elderly person to wear during daily activities.



Ground level falls sustain an impact force of 3.9-24.5 kN.

We identified a commercially available, reasonably comfortable head protection device than can withstand a force of at least 15kN.

Utilizing user experience research techniques, we predicted the compliance and identified areas of improvement.



With modifications, predicted compliance is high.

Long term study will be necessary to determine effectiveness.

The potential for injury prevention is high.

