PRESSURE INJURY RISK FACTORS IN SURGICAL HIP FRACTURE PATIENTS

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Background

- Pressure injuries occur among 6-15% of surgical patients with a hip fracture.
- Hospital acquired pressure injuries (HAPI) produce extended hospitalization stays, diminished functional post-surgical outcomes, and increase expenses.
- Older individuals with hip fracture have increased susceptibility to HAPI and at risk for negative effects.

Purpose

The purpose of the study is to explore specific HAPI risk factors in patients who experience a hip fracture.

Methods

2019 American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) data file merged with ACS-NSQIP 2019 Fracture Targeted Procedure file

Analysis with Pearson Chi-square tests for association between HAPI formation and independent variables; multiple logistic regression to identify independent risk factors

Findings

- Model included 9,190 patients.
- 628 (6.83%) developed at least one HAPI.

Significant risk factors

- Use mobility aid preoperatively (83.3% increased risk)
- Weight loss of 10% within 6 months prior to surgery (77.5% increased risk)
- Diabetic patients with insulin dependency (75.3% increased risk)
- Preoperative BUN >25 (63.4% increased risk)
- Age greater than 70 (48.8% increased risk)
- More than 1 day between admission to operation (40.0% increased risk)
- BMI less than 18.5 (35% increased risk)

Risk Factors of Post-op Pressure Injuries

Variable	*OR*	95% CI for *OR*		*p*
Age greater than 70	1.488	1.100	2.013	0.010*
BMI less than 18.5	1.347	1.004	1.807	0.047*
Preoperative mobility aid use	1.833	1.452	2.315	<0.001*
Diabetes on insulin	1.753	1.299	2.366	<0.001*
Weight loss >10% within 6 months	2.775	1.819	4.234	<0.001*
Preoperative BUN >24	1.634	1.299	2.057	<0.001*
Duration from admission to operation > 1 day	1.400	1.099	1.783	0.006*

Note: BMI = body mass index; BUN = blood urea nitrogen; CI = Confidence Interval;0OR = Odds Ratio

Implications

- Nurses can develop and implement HAPI prevent strategies to foster improvement of patient outcomes.
- Prioritize nutrition promotion in postoperative hip fracture patients with low BMI or weight loss due to increased risk of HAPI development