Surgical Care For the Homeless: Disparities in Outcomes for Access-Sensitive Conditions

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BACKGROUND

• Little is known about access to surgical care among people experiencing homelessness
• Access-sensitive surgical conditions are preferably operated on in a planned, elective setting

 Poor access to care can lead to:
- Delayed presentation
- Symptom progression
- Need for unplanned emergent surgery

Prevalence of surgery and rates of unplanned surgery are indicators of access to care among vulnerable populations.

RESEARCH OBJECTIVES

1. Compare unplanned surgery rates for access-sensitive conditions between people experiencing homelessness and housed patients.
2. Evaluate associations between housing status and postoperative morbidity and mortality

METHODS

Data Source: Healthcare Cost and Utilization Project (HCUP) State Inpatient Database 2016-2017
Patients: People who underwent colectomy, ventral hernia repair, or AAA repair in Florida, New York, or Massachusetts

People experiencing homelessness identified by HCUP’s “Homeless” variable or ICD-10 code Z59

Outcomes:
1. Unplanned surgery for access-sensitive conditions
2. Risk-adjusted morbidity and mortality

Analysis:
- Multivariable regression models controlling for patient and hospital factors
- Estimated the marginal effect of unplanned surgery on morbidity

RESULTS

175,584 patients – 423 (0.2%) people experiencing homelessness vs 1.5% in total inpatient cohort

People experiencing homelessness were more often:
- Male (71% vs 47%, p<0.001)
- Black (19% vs 10%, p<0.001)
- Uninsured/insured by Medicaid (53% vs 12%, p<0.001)
- Alcohol use disorder (29% vs 3%, p<0.001)

Unplanned Surgery
79.2% vs 43.5% OR 7.49, p<0.001

Serious Treatable Complications OR 3.63, p<0.001
Morbidity OR 2.10, p<0.01
Mortality OR 1.88, p=0.01

Compared to housed patients, people experiencing homelessness:

Among people experiencing homelessness, the mean marginal effect of unplanned surgery on odds of morbidity was 12.9% (p<0.001).

People experiencing homelessness had significantly higher odds of undergoing unplanned surgery, likely due to poor access to surgical care.

Worse postoperative outcomes are partly attributable to higher rates of unplanned surgery.

But disparities after elective surgery suggest additional vulnerabilities also play a role.

Policies to facilitate equitable access to safe, elective surgery may mitigate differences in rates of unplanned surgery and improve postoperative outcomes.

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