

Do Social Determinants of Health Disparities Increase the Likelihood of Failure to Achieve Same-Day Discharge After Total Joint Arthroplasty?

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INTRODUCTION: Social Determinants of Health (SDOH) disparities have been associated with worse outcomes after total joint arthroplasty (TJA), but the impact of SDOH disparities have not been examined for patients regarding same-day discharge (SDD). The removal of TJA from the Medicare inpatient-only list and increasing shift to surgery centers necessitates the need to understand predictors for failure to launch (FTL) within 24 hours following TJA. We aimed to investigate whether SDOH disparities impact SDD after TJA.

METHODS: 4318 patients who underwent unilateral elective TJA in an urban or suburban institution were queried from an institutional database. Using a patient's residential zip code, a DCI score was assigned based on the percentage of residents with high school diplomas, housing vacancy rate, unemployment, poverty rate, household median income, employment changes, and business changes. DCI scores 1-5 correspond to a community that is "Prosperous" (DCI 1), "Comfortable", "Mid-Tier", "At-Risk", or "Distressed" (DCI 5). Following 1:1 propensity matching, categorical data was compared with Chi-Square tests or Fisher's Exact.

RESULTS: DCI scores significantly varied between patients with SDD and FTL. "Prosperous" (FTL: n=1003, 46.5%; SDD: n=1126, 52.2%) and "Comfortable" (FTL: n=539, 25.0%; SDD n=514, 23.8%), DCI scores were more associated with SDD. "Distressed" (FTL: n=148, 6.9%; SDD: 4.8%, n=104), "At-Risk" (FTL: n=155, 7.2%; SDD: n=117, 5.4%), and "Mid-Tier" (FTL: n=314, 14.5%; SDD n=298, 13.8%) DCI scores were more associated with FTL.

DISCUSSION AND CONCLUSION: Despite institutional protocols to optimize discharge within 24 hours, we found that patients from "Distressed", and "At-Risk" communities were associated with FTL. This supports the inclusion of SDOH disparities as a factor for inpatient status after TJA for Medicare-reimbursement. The accuracy of the DCI score at assessing SDOH disparities and ease of implementation based on zip code make it an ideal tool for evaluating a patient's appropriateness for meeting inpatient status.