At Private Equity-Owned Hospitals, Hospital-Acquired Conditions Increased

CONVERSATION WITH THE RESEARCHER

"There remains a lot we do not know about the corporatization of health care, within which private equity is one form of ownership. Additional efforts to understand the implications of private equity for quality of care could be useful for guiding providers, policymakers, and the public in thinking through the tradeoffs involved in further corporate ownership of direct health care delivery."

Zirui Song, MD, PhD, Harvard Medical School & Massachusetts General Hospital

Q: Why are the findings of this study important?

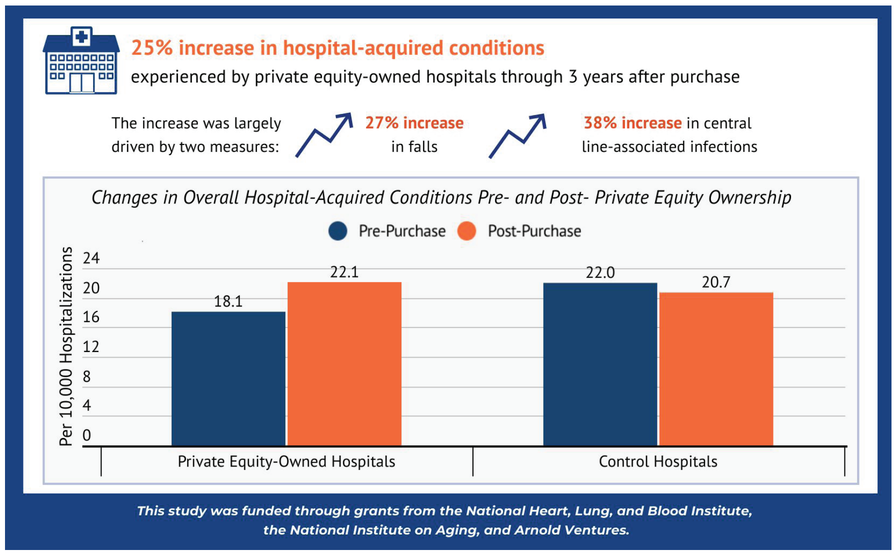
A: *Increased adverse events among hospitalized patients are concerning. Previous research showed increased hospital charges and profitability after private equity buyouts, but evidence on clinical quality had been mixed. Hospital-acquired adverse events are considered preventable and clinically important for patients. The fact that adverse events such as infections went down among non-private equity comparison hospitals while going up in private equity hospitals despite a likely lower-risk pool of admitted patients, may be particularly worrisome to policymakers and the public.*

Q: How does your study inform the need for regulation regarding private equity ownership of health care facilities and the protection of patient well-being?

A: *In previous work, we found that physician practices bought by private equity substituted some higher-cost clinicians for lower-cost clinicians. Other colleagues have found reductions in nursing assistants after private equity bought nursing homes. If changes in staffing and other cost reductions are pervasive in these hospitals, then policymakers may have reason to consider regulations around staffing and hospital assets to protect patients.*

SYNOPSIS

A new study found that private equity ownership of US hospitals was associated with a 25% increase in adverse events occurring while patients were hospitalized, such as falls and infections, persisting through three years after purchase. While previous research highlighted the impact of private equity ownership on health care costs, use, and the workforce, this analysis is the first to examine clinical conditions and events occurring during hospitalization, providing a concrete assessment of the quality of care received at private equity-owned hospitals. These findings offer valuable insights to policymakers and regulatory agencies working towards ensuring patient safety.



PRIVATE EQUITY OWNERSHIP IMPACTS QUALITY OF CARE

Private equity firms' involvement in the health care delivery system continues to deepen across the country, leading to increased attention from policymakers. In December 2023, the Senate Budget Committee launched a bipartisan investigation into the impact of private equity on hospitals. Previous studies found that private equity ownership led to increases in charges, prices, and volume, as well as changes in staffing and workforce experience. By analyzing adverse conditions and events that occur during hospitalization ("hospital-acquired conditions"), this study is the first to examine how private equity ownership, and the apparent changes in health care delivery, impact the quality of care.

Hospital-acquired conditions are preventable measures of inpatient care quality. Analyzing the full Medicare Part A data, this study found that beneficiaries admitted to hospitals purchased by private equity firms experienced a 25% increase in hospital-acquired conditions through three years after purchase. This rise occurred despite the likely lower-risk patient mix observed at the studied private equity-owned hospitals, where beneficiaries were younger and less likely to be dually eligible for Medicaid. In addition, hospital-acquired conditions typically increase a patient's length of stay, but at private equity hospitals, the mean length of stay declined. This likely reflects increased bed turnover and transfers to other hospitals, which were observed and which are consistent with approaches to increase revenue.

These findings are clinically significant as hospital-acquired conditions, including falls and infections, can contribute to other poor health outcomes. Given the overall national decline in hospital-acquired conditions, these findings may inform policymakers and health care organizations seeking to ensure patient safety and well-being.

RESEARCH INSIGHTS

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MORE ABOUT THIS STUDY

This difference-in-difference study analyzed Medicare Part A fee-for-service claims from 2009 to 2019. To be included, a hospital had to be newly purchased by a private equity firm, have at least 1 year of Medicare claims data before ownership, and 2 years of data after ownership. Of the studied private equity hospitals, 67% provided data for at least 2 years pre- and post-private equity purchase, and 33% contributed data for 3 years pre- and post-purchase. Hospital-acquired conditions were defined using ICD-9 and ICD-10 codes. Hospitals studied were primarily medium-sized (150-350 beds) and adverse events were observed in over 10,000 hospitalizations.

CITATION

Kannan, S., Bruch, J. D., & Song, Z. (2023). Changes in hospital adverse events and patient outcomes associated with private equity acquisition. JAMA, 330(24), 2365. https://doi.org/10.1001/jama.2023.23147

National Institute for Health Care Management (2023). The Growth of Private Equity in US Health Care: Impact and Outlook. NIHCM Expert Voices.

MORE INFORMATION

For more information about this study, contact Zirui Song at song@hcp.med.harvard.edu.

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KEY FINDINGS

This analysis examined the association between private equity ownership and hospital-acquired conditions using Medicare Part A claims data for 662,095 hospitalizations across 51 private equity-owned hospitals and 4,160,720 hospitalizations across 259 control hospitals. Hospitalization-level outcomes were evaluated to understand the association between private equity purchases of hospitals, hospital-acquired conditions, and patient outcomes. Private equity hospitals:

- Experienced a 25% increase in hospital-acquired adverse events or an additional 4.6 hospital-acquired conditions per 10,000 hospitalizations relative to control hospitals. This was primarily driven by a 27% relative increase in falls and a 38% increase in central-line-associated infections, despite the placement of fewer central lines.
- Performed 8% fewer surgical procedures, especially orthopedic and bariatric operations, yet doubled their rates of surgical site infections. These infections declined among control hospitals.
- Reported a slight decline in in-hospital mortality pre- to post-purchase by private equity firms, which was likely explained by the younger and lower-risk patients admitted. There was no differential change in mortality found by 30 days after hospital discharge.
- Transferred more admitted patients to other acute care hospitals. This increase was largest in patients with sepsis.
- Shortened patients' average length of stay by 3%, despite the increase in adverse events and the previous trends of patients having longer stays at private equity hospitals.