

# How Acquisitions Affect Firm Behavior and Performance: Evidence from the Dialysis Industry

<https://economics.harvard.edu/files/economics/files/ms29704.pdf>



Last 30 years, ↓ # of independent dialysis facilities  
86% have merged with large chains

Davita + Fresenius = 60% of all facilities, 90% of all revenue



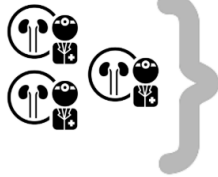
Independent centers = 21% of all facilities

Do such mergers **improve** or **worsen** patient outcomes?



Outcomes assessed:  
urea reduction ratio | EPO use | hospitalizations | transplantation | employee:patient ratios | survival rate

## Independent Dialysis Facilities



**Employee:Patient Ratios**  
Nurse:Technician ↓ 15.1%  
Patient:Employee ↑ 11.7%  
Patient:Station ↑ 4.5%

## Urea Reduction Ratio

↑ 2.1%  
URR ≥ 65%  
Hgb 10-12 g/dl ↓ 5.1%  
Hgb > 12 g/dl ↑ 10%

## EPO use

↑ 129%

## Merged Dialysis Facilities



↑ EPO dosing biggest contributor to ↑ profits  
↑ EPO = 25% of revenue, 40% of profit at 1 chain

USRDS + Annual Facility Survey + HCRIS

Data analyzed from 1998 – 2010 (pre-2011 "bundle")

## Hospitalizations

Overall ↑ 4.2%  
Septicemia ↑ 10.0%  
Cardiac Events ↑ 2.1%  
\*not significant

## Transplantation

Wait Listed ↓ 8.5%  
\*1-year after dialysis initiation

## Survival Rate

One-year ↓ 1.7%  
Two-year ↓ 2.9%

Venofor dosing/reimbursement add to profits

- Reimbursed per 100 mg vial, not per amount
- One company: 100 mg dosed as 25 mg from 4 vials
- Single-use vials discarded once open (4 x 75 mg wasted)



- Mergers deleterious for multiple patient outcomes
- Healthcare mergers immune to external competitive market forces; patients choose dialysis center based on proximity vs patient outcomes

Learn more about mergers at <https://datastudio.google.com/s/sy4YsETk-JY>

