Emergent Hemodialysis at Harris Health System: History, Law, Immigration, Ethics, and Cost

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Abstract

Hemodialysis is a life-saving treatment for patients with end stage renal disease (ESRD). Unfortunately, the ESRD patient population and the treatment costs have increased since 1972 when the Public Law 92-603 authorized Medicare to pay for ESRD treatment. Additionally, federal legislation has pushed states and counties to absorb the cost of emergent dialysis when treating undocumented patients, which has higher costs and worse outcomes compared to scheduled dialysis. In this paper, I will discuss the history, legislation, cost, and ethics behind hemodialysis at Harris Health System.
Thesis Statement

Given the rising cost of end stage renal disease treatment, and the high number of undocumented immigrants receiving emergent dialysis, there needs to be a change in dialysis policy and healthcare legislation in order to cover the uninsured and prevent futile treatment on certain patients.
Introduction

- Hemodialysis restores fluid environment on patients with end stage renal disease (ESRD) through diffusion of molecules across a semipermeable membrane
- Usually three times per week
- Not offered to undocumented immigrants, unless life-threatening electrolyte abnormalities or severe symptoms present
  - Emergent or “compassionate” dialysis
- Estimated 6,000 undocumented ESRD patients in the United States
- Large portion of cost fall on state and/or county-funded public safety-net hospitals
Key members of Seattle team that developed the shunt and artificial kidney treatment are (clockwise from center foreground): Dr. John S. Murray, Dr. Belding Scribner, Dr. James M. Burnell, Dr. Jerome P. Pendras, Mrs. James Ray Albers, Carol Williams, James Ray Albers, Dr. Robert M. Hegstrom, Dr. Robert O. Hickman, Wayne E. Quinton.
Life or Death Committee

- Selection factors
  - Age
  - Sex
  - Marital status
  - Number of dependents
  - Income
  - Net worth
  - Emotional stability
  - Educational background
  - Nature of occupation
  - Past performance
  - Future potential
  - References

Alexander, Shana. “They decide who lives, who dies: Medical miracle and a moral burden of a small committee,” LIFE magazine, 9 November 1962; 102-125
<table>
<thead>
<tr>
<th>Year</th>
<th>Legislative Act</th>
<th>Summary</th>
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</thead>
<tbody>
<tr>
<td>1972</td>
<td>Public law 92-603, section 2991</td>
<td>Authorizes Medicare payment for ESRD treatment, including dialysis and kidney transplantation [1]</td>
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<td>Permanent Residence Under Color of Law (PRUCOL) is state-dependent and entitles undocumented immigrants who reside in the United States to Medicaid benefits [12]</td>
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<td>Emergency Medical Treatment and Active Labor Act (EMTALA) mandates emergency medical treatment regardless of immigration status [11]</td>
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<td>1996</td>
<td>Personal Responsibility and Work Opportunity Reconciliation Act</td>
<td>Although federal funds only cover emergency services for undocumented immigrants, state-specific laws may extend benefits [3,11,13]</td>
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<td>2010</td>
<td>Patient Protection and Affordable Care Act (ACA; Public Law 111-148)</td>
<td>Government sponsored marketplace exchanges not offered to undocumented immigrants [13]</td>
</tr>
<tr>
<td>2014</td>
<td>Section 2704 of the Public Health Service Act (added by the ACA)</td>
<td>Prohibited health plans and health insurance issuers from imposing any preexisting condition exclusion [13]</td>
</tr>
</tbody>
</table>
- Total Medicare fee-for-service spending in the general Medicare population increased by 3.1% in 2016 to $490.1 billion.

- Between 2015 and 2016, Medicare fee-for-service spending for beneficiaries with end-stage renal disease (ESRD) rose by 4.6%, from $33.8 billion to $35.4 billion, accounting for 7.2% of overall Medicare paid claims.
- ESRD population change from 2015 to 2016

- Medicare fee-for-service as primary payer (MPP) grew by 1.2% to 441,162

- Medicare fee-for-service as secondary payer (MSP) increased by 2.8% to 63,340

- Medicare Advantage managed care increased by 12.4% to 114,316

- Non-Medicare increased by 3.8% to 146,354

- Total: 765,172
In 2016, ESRD spending per person per year (PPPY) increased by 2.5%
For hemodialysis (HD) care, between 2015 and 2016
- Total Medicare ESRD expenditures increased by 4.6% ($26.8 billion → $28.0 billion)
- PPPY expenditures increased by 2.5% ($88,782 → $90,971)

*Total spending includes costs for beneficiaries with Medicare as either primary or secondary payer, and PPPY amounts include only beneficiaries with Medicare as primary payer
Care for Immigrants with End-Stage Renal Disease in Houston: a Comparison of Two Practices

• “Emergent Care” group
  • More frequent emergency room evaluation and hospital admission
  • Repeated placement of temporary catheters for dialysis
  • Frequent blood transfusions
  • Emergency dialysis
  • Management of complications in intensive care units

![Table 3: Mean [median] medical costs by patient group per patient per year, in US dollars.](image)

Harris Health System

• Provided dialysis treatment to every ESRD patient regardless of citizenship through 1997
• Newly encountered undocumented immigrants were denied scheduled dialysis until the opening of Riverside Dialysis Center in 2004
• In 2010
  • 126 patients receiving emergent dialysis at Ben Taub and LBJ
  • 60 patients receiving scheduled dialysis at Riverside
• Peritoneal dialysis program opened in 2017
• 20 patients continue getting dialysis at Texas Children’s Hospital as young adults after initiating treatment in their childhood or after failing renal transplants
New Opportunities for Funding Dialysis-Dependent Undocumented Individuals

- No federal regulation regarding sale of private insurance to undocumented immigrants
- Affordable Care Act created opportunity for patients with preexisting conditions to acquire health insurance
- American Kidney Fund providing third-party payment system

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Table 1.

Significant reduction in care utilization after insuring dialysis-dependent undocumented individuals in Houston, Texas

<table>
<thead>
<tr>
<th>Background</th>
<th>September 1, 2015 to May 1, 2016</th>
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<tbody>
<tr>
<td>No. of patients</td>
<td>32</td>
</tr>
<tr>
<td>Average age (years)</td>
<td>43.6</td>
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<tr>
<td>Hispanic (%)</td>
<td>97</td>
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<tr>
<td>Men (%)</td>
<td>59</td>
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<tr>
<td>Time on emergent dialysis (a)</td>
<td>1.4 yr (511 d)</td>
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<thead>
<tr>
<th>Processes of care</th>
<th>September 1 to December 1, 2015</th>
<th>February 1 to May 1, 2016</th>
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<tbody>
<tr>
<td>Emergency Department visits (b)</td>
<td>596</td>
<td>5</td>
</tr>
<tr>
<td>Total days hospitalized</td>
<td>101</td>
<td>19</td>
</tr>
<tr>
<td>Number of blood transfusions</td>
<td>33</td>
<td>3</td>
</tr>
</tbody>
</table>

Thirty two undocumented dialysis-dependent individuals previously receiving emergent dialysis obtained commercial health insurance and began to receive scheduled, maintenance hemodialysis on February 1, 2016. This resulted in a statistically significant reduction in utilization of Harris Health hospital resources. All comparisons are statistically significant \((P < 0.05)\) using inverted \(\beta\)-binomial comparison testing.

\(a\) Insurance was obtained between December 15, 2015 and January 22, 2016. All 32 patients received only emergent dialysis for the 3 months preceding December 1, 2015.

\(b\) Only includes Emergency Department visits related to dialysis or anemia.
Other Alternatives

• Peritoneal dialysis
• Maintenance dialysis
• Non-standard dialysis
• Kidney transplantation
• Improved pre-ESRD care
Ethics

• Who should get dialysis?
  • Renal Physician Association & American Society of Nephrology
    • Clinical Practice Guideline on Shared Decision-Making in the Appropriate Initiation of and Withdrawal from Dialysis

• Four topic approach to ethical analysis
  • Medical indications
  • Patient preferences
  • Quality of life
  • Contextual features, such as psychological, financial, legal, and spiritual

• Principles of autonomy, beneficence, nonmaleficence, justice, and professional integrity

• Undocumented immigrants are part of our community
Conclusion

• Rising cost of ESRD treatment
• “Compassionate dialysis” results in worse outcomes and higher costs
• Need changes in dialysis policy and healthcare legislation
• Need to withhold or withdraw dialysis when futile
References


Questions?