Cost of pediatric liver transplant among commercial and Medicaid insured patients

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Introduction

- Pediatric liver transplant (LT) is associated with significant healthcare expenditures and resources, including hospitalization, outpatient visits, and costs beyond LT costs.
- Previous work has suggested that LT costs are high, with costs exceeding $1 million per patient.
- We previously reported LT costs as part of a larger study, including children with cholestatic liver disease.
- LT is an effective approach for a range of pediatric liver diseases; however, it is costly and results in a burden of healthcare visits and costs to patients and families, especially those with Medicaid.
- This analysis aimed to evaluate the costs, healthcare utilization, and mortality associated with pediatric LT among commercially insured patients.

Study objectives

- Evaluate total LT costs and healthcare visits among pediatric LT patients.
- Identify predictors of economic burden.
- Assess the impact of LT on mortality.

Methods

Data sources and cohort selection

- Commercial Claims Database: Includes patients aged ≤18 years with a diagnosis of LT between 2010 and 2015.
- Study cohort: Includes patients who received ≥1 LT between 2010 and 2015.
- Commercially insured: Includes patients with commercial insurance at the time of LT.

Outcomes

- LT costs: Included LT costs, inpatient, outpatient, and pharmacy costs.
- Healthcare visits: Included all healthcare visits, including hospitalization, outpatient visits, and emergency department visits.
- Mortality: Identified patients who died within 1 year after LT.

Results

- Total LT costs were highest in the 0 to <2 years age group.
- Patients with LT had an increased risk of mortality within 1 year of LT.
- Pediatric LT patients experienced ≥1 emergency department visit per year.

Conclusions

- Pediatric LT results in high costs and increased healthcare utilization.
- LT is associated with increased mortality risk in the short term.
- Pediatric LT patients require continued healthcare monitoring and management.

References

- J R Marden and K Gaburo are full contributors to this work.
- This analysis utilized data that were de-identified and does not contain protected health information.
- All authors have a stake in the work, including intellectual property, management, or control of the topic.
- The study was funded by Mirum Pharmaceuticals, Inc.
- The results are generalizable to other identical populations.

Appendix

- Supplementary tables and figures are available online.
- Additional analysis can be provided upon request.