The financial implications of care for patients with spina bifida are important for many stakeholders, particularly as patients transition from pediatric to adult care.

We examined the total cost of care for patients with spina bifida, stratified by age, from 2008-2018.

We hypothesized that the cost of care is increasing over time and higher in the pediatric (<18 years) or adult years (≥27 years) than in the transitional period (18-26 years).

**METHODS**

- Patients with spina bifida in the MarketScan research database from 2008-18 (n=62,885) were identified using ICD codes.
- Patients were categorized into three age groups: 0-17 (pediatric), 18-26 (transitional), and 27+ (adult).
- Cost of care totals were aggregated by category (ED, surgery, inpatient, outpatient) and age; records with a cost of <$1 were excluded.
- Predictive Model:
  - Linear regressions of log-transformed cost vs. age were run for each cost category.
  - Age <1 excluded to reduce noise from neonatal healthcare; ages >90 lumped together due to low counts.
  - Predictive models used to fit additional models with segmented relationships, with a priori assumptions of two breakpoints at age 18 and 26.
- Difference in Cost by Age:
  - Outpatient costs decrease during childhood, plateau during the transitional period, and rise during adulthood.
  - Inpatient costs decrease during childhood and the transitional period, and then are inconsistent (remain stable on average) during adulthood.
  - Surgical costs are highest in the neonatal period, decrease during childhood, plateau during the transitional period, and are inconsistent in later adulthood (remain stable on average).
  - ED costs decrease during childhood, begin to rise during the transitional period, and rise throughout adulthood.

**DIFFERENCE IN COST BY AGE**

- Transitional patients incurred relatively lower outpatient and surgical costs than patients at other timepoints.
- ED costs were highest among adult and lowest among pediatric patients.

**ASSOCIATION BETWEEN OUTPATIENT AND ED VISITS**

- The odds of visiting the ED within a calendar year were higher among patients with a larger number of outpatient visits the previous year.

**BACKGROUND**

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