Evolving Trends in the Inpatient Care of Early Onset Scoliosis

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Disclosures

- **Murphy** – committee member: POSNA, SRS
- **Barfield** – none
- **Corrigan** – none
- **Sawyer** - Mosby: Publishing royalties, financial or material support
  Nuvasive: Paid presenter or speaker
  Republic Spine: Paid presenter or speaker
  Wolters Kluwer Health - Lippincott Williams & Wilkins: Publishing royalties, financial or material support
- **PSSG** - Research support: POSNA, FDA, NuVasive, DePuy Synthes Spine, Growing Spine Foundation, Children’s Spine Foundation
Background

- EOS rapidly advancing/evolving field

- 10 year
  - Patient population
  - Inpatient hospital experience
  - Financial metrics
Hypothesis

- # patients
- associated hospital charges
- average length of stay
- rate of complications
Methods

PHIS – Pediatric Health Information System

Aged 0-10
Diagnosis of scoliosis
Methods

• Average Number of cases/center
• Average length of stay
• Rate of complications
• Hospital based charges
Results

- 50 participating children's hospitals
Number of Patients Treated

# treated at each hospital

- 2009: 58
- 2018: 75 (range 20-217)
  - $p=0.012$
Length of Stay

- Similar across all years

- 2009: 7.95 days
- 2018: 8.08 days
- p=0.83
Surgical Complications

Rates unchanged

- 2009: 17%
- 2018: 17%
  - \( p = 0.95 \)
Medical Complications

• Increase in the rates of medical complications
  o 2009: 0.36%
  o 2018: 1.4%
    • p=0.004

• Increase in the rate of infection
  o 2009: 39%
  o 2018: 47%
    • p=0.007
Medical Complications

• Increase in the rates of medical complications
  o 2009: 0.36%
  o 2018: 1.4%
    • p=0.004

• Increase in the rate of infection
  o 2009: 39%
  o 2018: 47%
  • p=0.007
Hospital Based Charges

2X during study period

2009: $80,753
2018: $145,311
p=0.001
Conclusions

Patient Volume Increasing

Room for Quality Improvement?

Charges up

LOS Stable

High rates of infection with these kids
Limitations

• PHIS

• Associated Diagnosis of EOS – for ALL admissions

• Not linked to procedures/CPT codes
Take Home

• Volume Up

• Room for Improvement
  o 8-day (!!) hospital stay
  o 47% (!!) rate of infection

SICKER PATIENTS???
Thank You