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**Practice Variations in Sedated Echocardiography and Impact on Repeat Echocardiography in Non-Refractory Kawasaki Disease**

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**Importance**

- Sedated echocardiography (SE) is recommended by the American Heart Association 2017 Kawasaki disease (KD) guidelines for children <36 months of age to facilitate quality imaging.\(^1\)
- Practice variations in obtaining SE and its impact on repeat echocardiography (echo) in non-refractory KD (NRKD) are unknown.

**Objectives**

- **Primary:** To describe hospital-level variability in the percent of SE among children <36 months of age admitted with NRKD prior to the 2017 KD guideline update.
- **Secondary:** To test the association of initial SE with the performance of repeat echos, length of stay (LOS), and total standardized costs.

**Methods**

- Retrospective cohort study using the Pediatric Health Information System.
- **Inclusion Criteria:** Children <36 months of age admitted with NRKD from 3/2010 through 2/2017 who received at least 1 echo, only 1 dose of IVIG, and no immunosuppressive medications.
- **Exclusion Criteria:** KD admissions prior to 6 months, transfers-in, readmissions within 7 days where IVIG or immunosuppressive medication was billed, and hospitals with ≤10 NRKD admissions.
- **Primary Outcome:** Percent of admissions with both echo and sedation medication billed on the same day.
- **Secondary Outcomes:** Repeat echo during the same admission, LOS, and total hospitalization costs.
- Chi-square tests, Wilcoxon rank sum tests, and Pearson correlations were utilized; p<0.05 considered significant.

**Results**

- **Results**
  - 40 children’s hospitals; 2887 NRKD admissions; 3216 total echos.
  - Percent SE varied from 0% to 87% (median 5.9%)
  - Higher NRKD volume was associated with less percent SE
  - Significant variation between children’s hospitals exists in the use of SE
  - No association between SE and hospital mean LOS (Fig 3) or total hospitalization costs (Fig 4).

**Conclusions and Relevance**

- Significant variation between children’s hospitals exists in the use of SE for children <36 months of age with NRKD prior to the American Heart Association 2017 KD guideline update.
- Consideration should be given to performing SE as it may reduce the need for repeat echos without impacting LOS or total costs.

**Reference**


**Contact Information**

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