

Improved Data Capture and Quality Following Implementation of Standard Operating Procedures for a Single Site in the Canadian Spine Outcomes Research Network Database.

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Objectives

Databases are challenged by high lost to follow-up rates leading to compromised validity and poor data quality. This affects the Levels of Evidence designation for any proposed research utilizing the database. The objective of the current study is to test the effectiveness of new Standard Operating Procedures (SOPs) to reduce patient attrition at a single CSORN centre.

Method

A data collection report was generated immediately prior to, and 9 months after SOP implementation examining 12 week, 12 month and 24 month time-points. Follow-up rates pre-SOP, post-SOP, and nationally were compared using the nonparametric t-test Man Whitney U. Significance was set at $\alpha > 0.05$.

Results

Significant differences were noted for follow-up rates compared nationally, pre-SOP, post-SOP: 12-months 79%, 75%, 85%; 24-months 73%, 72%, 81% respectively ($p=0.00$). No difference was observed at 12-weeks: 91%, 91%, 93% respectively ($p > 0.05$). With exclusion of patients that were outside the capturable time frame at SOP initiation, the SOP proved very robust with significant improvement in follow-up rates: 12 weeks 99% ($p > 0.05$), 12 months 98% ($p=0.00$), 24 months 95% ($p=0.00$). Data quality was also improved post-SOP due to increased data accuracy and decreased data points missed.

Conclusions

Formal introduction of this SOP at the single centre has decreased patient attrition, providing improved data collection at all study time points to 24 months. The new SOP included regular audits and training to ensure data accuracy. Adoption of SOPs at all CSORN sites could potentially improve follow-up rates and thus quality nationally.