

Pediatric Head Injury-CT Utilization

Category of submission (select as many as apply):

Choosing Wisely

IOM Domains that this project addresses (select as many as apply)

Safety

Patient Centered

Effective

Equitable

Please share how you defined your project. Consider addressing the questions below. (Max 500 Words)

What was the identified Quality Gap? - What was the improvement target? - What was the timeline of the project? - Who were the stakeholders? - What was the stakeholders' input? - What was the method for collecting stakeholder input? - What was the potential for significant impact to the institution? - What was the potential for significant impact to society?

The Collaborative Level Target of less than 20% with an imposed Site Level Target of less than 15%. Quality gap was unnecessary head CT in pediatric trauma with an improvement target of near 100% compliance with protocol. Project timeline was 6 months. Stakeholders included were all ED attendings and residents. Significant impact for the institution was compliance with measured metrics. Impact to society was reducing the amount of unnecessary radiation as well as a reduce in cost.

Please describe how you measured the problem. Consider addressing the questions below. (Max 500 Words)

What data sources were used? - Was a numeric baseline OUTCOME measure obtained? - What defined the sample size? - What counterbalance measures were identified? - What numeric baseline COUNTERBALANCES were obtained? - Was the outcome measure clinically relevant? - Was the outcome measure a nationally recognized measure?

Patient charts reviewed for number of pediatric incidences and subsequent head CT performed. The time frame between 1/1/2021 through 12/31/2021 is considered for the pediatric age group of 0 to 17 years. Data source was all pediatric patients with a chief complaint of head injury. A numeric baseline outcome was obtained. The outcome was clinically significant and this was a nationally recognized measure.

Please describe how you analyzed the problem. Consider addressing the questions below. (Max 500 Words)

What was one factor contributing to the gap? - Were multiple factors contributing to the gap? - Was a structured root cause analysis undertaken? - What was the appropriate QI method or tool used for root cause analysis? - Was a root cause analysis performed prior to identifying potential solutions? - What was the rationale for selecting intervention(s)? - Did the project use a QI method or tool for selecting intervention(s)?

Retrospective study in reviewing ordered CT; rationale and outcome. Data compared to group historical data; then also compared to the national average.

Please describe how you improved the problem. Consider addressing the questions below. (Max 500 Words)

What was the implementation of intervention(s) (date/time of go live)? - Was the target measure re-measured afterwards with comparison graph? - Was a structured plan for managing change used? - Was the project counterbalance re-measured with a comparison graph? - Was the counterbalance adversely affected? - Is the improvement in target outcome measure shown? - Was a statistical significance demonstrated in the outcome measure?

Beginning January 2021 the utilization trend had shown performance at a high of 30% to the current zero percent. Data was presented and reviewed by the QI committee; then presented to the ED group for education.

Please describe the control phase of your project. Consider addressing the questions below.

What were the lessons learned from the project? - Was there communication to stakeholders of the summary of the project, and lessons learned? - Was a process owner identified? - Did the process owner acknowledge ownership of ongoing monitoring? - What control measures were identified? - What was the reaction plan for deficiencies identified in the control measure? - Was there at least one year of sustained monitoring demonstrated? - Was the project successfully diffused in scholarly form (i.e. poster, manuscript, etc)?

Of all pediatric trauma that present to the ED; compared against the national average.

Attachments

[Peds Head Injury](#)