Reducing Variability of Triage Levels Using Real-Life Case Studies

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**Clinical Problem**
Based on direct observations and through anecdotal sources, there was concern of the variability and accuracy of the triage process among triage trained Registered Nurses (TTRNs).

**Background**
Many Emergency Departments use the Emergency Severity Index (ESI) as an objective triage tool to prioritize acuity and predict resource utilization.

**Purpose**
The purpose of this EBP Initiative, was to determine baseline accuracy of our TTRNs, the overall variability of triage, and implement improvement measures.

**Setting**
St. Anthony Hospital is a 224 bed medical center in the Denver, CO metro area and serves the region as a Level One Trauma Center, Chest Pain Center, Comprehensive Stroke Center, and Sepsis Center of Excellence. St. Anthony has a 46 bed ED that is a two-time recipient of the ENA Lantern Award.

**Methodology**
A baseline assessment was completed by 28 ESI TTRNs using 10 standardized cases from AHRQ. The data was evaluated for accuracy and variability. The participants were then given the correct answers with rationale. Over the next 6 months, 13 real-life triage cases were scrubbed of PHI and sent via email asking for an evaluation and ESI rating. At the end of each week, key teaching points for critically evaluating the case and rationale was then socialized back.

**Findings**
- **Pre-intervention Case Study Survey**
  - 0% of the standardized case studies had 100% agreement by the TTRNs
  - 63% of cases were accurately rated
  - 30% of cases under triaged
  - 7% of cases over triaged

- **Post-intervention Case Study Survey**
  Following the 13 real life case studies over a 6 month period, the results positively impacted all areas.
  - 27% of the standardized case studies had 100% agreement by the TTRNs
  - 74% of cases were accurately rated
  - 25% of cases under triaged
  - 1% of cases over triaged

**Conclusion**
While more education and training would likely benefit this cause, a continued utilization of the case study model should be considered to reach the 90% accuracy benchmark with AHRQ.

**Implications for Practice**
Collectively learning from real-life case studies from actual patients enhanced accuracy and reduced ESI variability among TTRNs. Reducing variability in triage facilitates the most optimal care and leads to better outcomes. This low cost educational model could be useful to anyone seeking similar results.

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