Factors Influencing ESI Accuracy

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Purpose and PICOT Question:
The purpose of this evidence-based practice project was to determine if case-scenario based education was an effective way to improve Emergency Severity Index (ESI) triage accuracy and confidence with using the ESI tool in Providence St. Vincent Medical Center Emergency Department (PSVMC) ED nurses.

In PSVMC ED nurses does case-scenario based education compared to current practice improve ESI triage accuracy after attending a one hour class?

Background:
A literature search was conducted on ESI triage accuracy which was then narrowed to focus on factors that affect ESI triage accuracy.

Jordi et al. (2015) looked at the accuracy of triage nurses applying the ESI triage tool and found that nurses were more likely to be accurate if they had regular education on ESI. The study also highlighted that case-scenarios, when used in triage training, could be improved when provided through simulation techniques such as video re-enactments. Smith et al. (2012) also investigated the use of case-scenarios as well as simulation with results that suggested, “The combination of multiple pedagogies can enhance confidence in triage decision making”.

Dateo (2013) conducted a study that examined the Triage Decision Making Inventory. The article discusses the need for critical thinking skills, communication skills, clinical decision making skills, and prioritization skills. The author reiterates that continuing annual education, quality assurance feedback (ideally monthly, realistically, quarterly), minimum of one year of ED experience and mentorship are necessary components to maintain consistency and standardization and enhance triage competence.

Baseline Assessment
Consistent, on-going ESI triage education has not been the standard practice for the PSVMC ED. Figure 1 shows that the percentage of patients assigned to each of the five ESI levels did not match up with national averages, with PSVMC having more Level 2 and fewer Levels 4 and 5 patients.

Intervention:
A one hour long class covering ESI triage was offered three times to all PSVMC ED nurses. A total of 10 nurses attended the class. The class utilized different learning techniques (verbal discussion, written tests, and video re-enactment scenarios of the different triage levels) centered around case-study based scenarios. Nurses from different shifts (4 days, 3 nights, 3 mid-shifts) and with varying levels of experience (<1 year to 16 years) attended. Attendees were asked to complete a survey prior to class and after class rating their confidence level, and a pre-test on ESI triage levels was administered as well as a post-test. Thirty days after the last class, all PSVMC ED nurses were asked to complete a survey and test.

Results:
Survey data was collected on the 10 nurses that attended the three classes. No nurses responded for the 30 day post education evaluation and post-test. Nurses accuracy at assigning ESI triage levels for each scenario improved after education from 3.7 out of 5 correct on pre-tests to 4.9 correct on post-tests (Figure 2). The nurses also rated themselves as more confident using the ESI tool and were more likely to recommend using ESI at other facilities after education (Figure 3). Nurses that attended the class shared that they “enjoyed discussing” ESI with other nurses and this helped them feel more confident in their application of the tool.

Conclusion and Next Steps:
This project demonstrated the possibility that small, focused, educational ESI refresher courses using case-scenario based education can increase both confidence with and accuracy using the ESI tool. For a large department with approximately 150 nurses needing refresher training, small groups may be a quicker, more effective way to maintain an annual competency for all staff. Group discussion of ESI scenarios and rationale for assigned levels made nurses feel more confident in using the tool. Much of the literature noted that random chart audits should be completed on a regular basis. Although the ED does not currently do random chart audits, it may be helpful to suggest to ED leadership to have each nurse randomly audit several charts each year to increase education and compliance with the ESI tool.

References


