**Clinical Practice Problem**

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Healthcare organizations use triage to categorize patients based on their injury’s severity and the order in which these patients need care and monitoring. Yancey &O’Rourke (2021) contend that emergency departments (EDs) the world over have utilized triaging concept to help sort and prioritize patient care. The concept is said to have originated in the military as field doctors quickly looked over soldiers and established if a wounded soldier required anything in the early 1700s. From the military, some French doctors led by Weinerman first implemented the triage system in 1964 after publishing a systematic interpretation of triage in civilian ED settings. Contemporary healthcare continues to integrate triage which starts long before the patient has arrived at the facility (prehospital triage), scene of the event triage, and eventually triage upon arrival at the ED.

Most importantly, triage at the hospital’s ED aims to offer practical and prioritized care to patients who need it while also optimizing the available resources and time. Be that as it may, there exist various forms of ED even though inconsistent use of a standard triage system may lead to a lack of a systematic process to facilitate triage. Consequently, the essay develops a clinical question addressing the identified clinical practice problem of the lack of a standardized triage system in the ED of the hospital selected as the site of implementation of the proposed intervention.

**A Clinical Question Related To My Area of Clinical Practice and the Clinical Foreground Question**

Suffice to say that triage marks the starting point of documenting the patient and their needs, further assessment and treatment, reassurance and comfort, and communicating with both patients and their visits in the context of the ED visit.Augustine (2018) reports that over 145 million visited the ED in 2016, jumping from 136.9 million in 2015. The report further notes that the ten-year volume increased by 24.7% while the increase is adjusted to 61.2% over 20 years- baseline estimate was 90.3 million in 1996). Statistics further indicate that less than 20% of the patients were seen within 15 minutes of arriving in the ED, while the average national wait time for a patient to be seen in the ED was 37.1 minutes more than 90 minutes to be taken to room and 135minutes before being discharged (Savva & Tezcan, 2019). One must appreciate the fact that clinical decision-making used in triages endeavors to ensure that all patients with their distinct complaints get appropriate care in a timely way. The RNs stationed in the ED have to complete a rapid, focused assessment on each patient, then assign an accurate triage acuity level utilizing a triage system that is valid and reliable. Triage acuity level decisions that are inaccurate could lead to adverse patient outcomes. Subsequently, my proposed clinical foreground question states ‘Among patients aged eight years and above who visit the ED (P-Population) does the implementation of electronic, acuity support mold installed in the EMR( I-intervention) compared to standard triaging (Comparison) decreased the number of patients who left without being seen( O-outcome) over three months(T-Time)?

**Why Lack of a Standardized Process to Facilitate ED Triage is a Clinical Nursing Practice Problem at the Selected Hospital and the Proposed Intervention EASM-in -EMR Offers an Opportunity for Improving Health Outcomes**

It is common practice for Registered Nurses stationed in the ED to complete the triage assessment and make decisions on triage acuity level premised on a given patient’s severity of their medical condition. Elbaih(2017) notes that various types of triage like the South African Triage Scale(SATS), The Cape Triage Score(CTS), Australian Triage Score(ATS), START, and ESI abound. In the USA, some standard triage systems exist like START (simple triage and rapid treatment) triage system where a patient’s triage status is calculated within 60 seconds for patients eight years or more. Another is the ESI (Emergency Severity Index) triage algorithm, where the triage nurse asks ‘is the patient dying’ to determine whether they require prompt life-saving interventions. Be that as it may, there exists the absence of a systematic process for triage facilitation resulting in inefficiencies in the triage process.

Moreover, lack of systematic triage protocol negatively affects electronic medical records documentation rendering the ED triage process more ineffective. The adverse impact of such an inefficient ED triage process includes increased patient mortality rates in the ED, poor patient outcomes, extended length of stay, ED overcrowding, and ambulance diversion. Most healthcare experts admit that visits continue to increase in the USA and globally, leading to increased wait times to see the provider. As a result, the rate of patients who left without being seen (LWBS) in the ED continues to increase. According to Villa et al. (2018), available data in the US found that the delays disproportionately affect higher acuity patients, but accurate triaging would remedy this anomaly; hence their proposal of a computerized step-by-step triage algorithm concentrated on information available to assign an acuity level. Similar sentiments were echoed by Sterling et al. (202), who emphasized using current natural language processing techniques in their study. While using s retrospective cohort study design, these researchers sought to predict the number of future required ED resources using the ESI triage protocol as a guide. They also used natural language processing of nursing triage notes. Therefore, they concluded that machine learning of nursing-triage notes and clinical data presented at the ED presentation is bound to help predict the number of ED resources required at a future date. These findings have important clinical implications because machine learning holds the potential to augment ED triaging capabilities for the staff, guide the allocation of ED clinical and human resources, and ultimately improve patient flow in the ED.

Krug et al. (2020) have also weighed in their support for machine learning models by conducting a study that purposed to evaluate a state-of-the-art machine learning model on its ability to predict mortality at the triage level. In their retrospective study design, these scholars demonstrated that triage scores target optimizing wait times while simultaneously prioritizing resource usage. It is noteworthy that artificial intelligence algorithms offer several benefits once predictive clinical applications are created. The study findings are significant to nursing and healthcare practice. The gradient boosting model demonstrates the high predictive ability for screening patients at risk of early death by using data available at the timer of triage. The ideas generated in this study are relevant to my proposed project. Incorporating them is bound to improve both patient and health outcomes, just as EASM-in EMR aims to achieve. Successful implementation of this intervention is expected to decrease the rate of patients in the ED LWBS by the provider after triage.

**Article That Best Supports Nursing Interventions For Of My Proposed Research Topic**

I believe that Villa et al.’s (2018) study titled Decreasing triage time: effects of implementing a step-wise ESI algorithm in an EHR+ is the most relevant to my study. At first, the study uses a pre-and-post quasi-experimental design, just like in my proposed study. In terms of objective and approach, my project and this study are similar. We both seek to determine if implementing a triage scale into a computerized algorithm would positively impact ED health outcomes. However, the two are different in that my study anticipates a reduction in the LWBS rates while the article’s primary outcome is a decrease in ED triage time. Another difference is that I propose integrating the computerized algorithm in the patient’s EMR, unlike the cited study’s Incorporation of the algorithm in the patient’s EHR. Last but not least of the vital supports is that we both use an algorithm based on the Emergency Severity Index.

**Conclusion**

In conclusion, the identified clinical practice problem and the developed clinical question seek to achieve evidence-based findings and conclusions that support the utilization of an installed ESI mold to improve efficiencies in the ED triage process. Its success will be evaluated on a decrease in the rates of patients who LWBS. Secondary outcomes include RN increased satisfaction rates. At the same time, an appropriate change theory will be selected as the theoretical framework to guide the proposed project. The proposed PICOT-based EBP project will gather evidence supporting the continued application of an electronic, acuity, support mold incorporated in an EMR.

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