The Impact of a Protocol on Improving Sexual Assault Care in an Emergency Department

Category of submission (select as many as apply):

Reducing Disparities

Resident/Fellow Project

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?

Sexual assault is a serious public health issue and common emergency department (ED) presentation. In 2018, we conducted a quality assessment in our ED that showed deficiencies in our care for these patients, particularly in sexually transmitted infections (STI) testing, treatment, and post-exposure prophylaxis (PEP). In response, we implemented an ED sexual assault protocol in March 2020 that outlines all the procedures for these patients from triage to discharge and follow-up. This protocol also included information on testing and pharmacologic therapy as recommended by the Centers for Disease Control and Prevention (CDC) and state law. It was made available and easily accessible to any ED provider. By examining the change in provider adherence to these guidelines before and after implementation, the goal of our intervention was to improve provider knowledge, patient care, and outcomes.

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?

We performed a retrospective chart review of all adult patients presenting with a chief complaint of sexual assault from April 2020 to April 2021. Patients who were under eighteen years old, refused to be examined, eloped, or presented more than five days after the incident were excluded. We compared this data to the 2018 pre-implementation data in order to evaluate for any change in provider adherence to the guidelines. We focused on the areas of care that we noted deficiencies in previously, specifically for STI testing, treatment, PEP, and pregnancy assessment and prevention.

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)?

Prior to creating the protocol and implementing it in the department, we found that multiple factors contributed to the deficiencies found in patient care highlighted in our initial study. For example, lack of knowledge in state and CDC laws, knowledge deficiencies for certain STI testing, treatment, and PEP, as well as dependence on the recommendations made by the Sexual Assault Nurse Examiner. Because of the complexity of sexual assault care that happens in the ED in addition to the need for close outpatient follow-up, we chose to create and implement our QI method as a protocol that lists out management in a step-by-step fashion for all ED providers to use.

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?

24 charts were reviewed post-implementation (T2), and compared to the 25 charts pre-implementation (T1). There were statistically significant increases in gonorrhea/chlamydia (GC) treatment (T1: 56%, T2: 96%, p=.0012), trichomonas treatment (T1: 48%, T2: 79%, p=0.0239), and HIV PEP (T1: 32%, T2: 88%, p=0.0001). There were no significant differences found for the testing of pregnancy (T1: 95%, T2: 100%, p=0.54), human immunodeficiency virus (HIV) (T1: 50%, T2: 58%, p=0.16), hepatitis B (T1: 24%, T2: 46%, p=0.10), and syphilis (T1: 20%, T2: 33%, p=0.23). There were also no significant differences found for the provision of emergency contraception (T1: 70%, T2: 94%, p=0.07) and hepatitis B PEP (T1: 12%, T2: 33%, p=0.07).

We used Fisher's exact test to compare the data. While it is reassuring that all areas showed improvement in adherence after the intervention, some aspects of care such as HIV, hepatitis B, and syphilis testing as well as the provision of emergency contraception and hepatitis B PEP still have room for improvement.

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)?

The implementation of a protocol can be part of an effective approach to improving sexual assault care in the ED, particularly for STI treatment and prophylaxis. We are now two years after implementation and there is ongoing monitoring. Future analyses of our data can take into

consideration short and long term health outcomes and patient adherence to outpatient follow-up processes. We presented our data as an abstract at SAEM academic assembly this year in May 2022.