Proposal for a Violence Screening Tool at Triage

Kermit Frog, Miss Piggy, Big Bird

State University

**New page Executive Summary**

The literature identifies that healthcare workers are at increased risk of violence as they are the first line of contact. The risk is worsened by the environment and work conditions. Victims of violence suffer physical, emotional and psychological effects (OSHA, 2015). Such adverse outcomes could affect organizational costs including workers leaving the healthcare profession and low morale (RNAO, 2009). This report proposes a violence screening tool flagging potentially violent patients in the emergency department triage area, in an effort to improve safety processes across the University Health Network, thereby reducing violence.

The system will be accessible through the Electronic Patient Record and transferable and accessible throughout inpatient units, outpatient clinics and UHN facilities. Triage nurses in the emergency department will be responsible for conducting the initial patient assessment utilizing the screening tool.

Background research identified many benefits to violence screening and patient flagging. They include improved communication and awareness of known risks, promoting a healthy work environment maximizing the well-being of healthcare workers including nurses, high quality patient outcomes, and increased organizational performance (PSHSA, 2017).

Employers must protect employees, including disclosure of information pertaining to a violent or potentially violent patient. Implementing the proposed IT solution would assist employers to implement policies that promote safety, the well-being of healthcare workers and the public.

It is proposed that the University Health Network:

(1) immediately improve safety measures beginning with the implementation of an electronic violence screening tool

(2) focus on preparing the organization for change

(3) utilize structured timelines and adequate training for all staff

(4) employ early evaluation strategies enabling timely upgrades and changes to the system and (5) consider the barriers and solutions identified.

Inadequate policies for preventing workplace violence contribute to increased violence across healthcare. Implementing the aforementioned solution would assist employers in meeting their responsibility to implement policies, procedures and practices. Furthermore, it would promote the safety and the well- being of healthcare workers and the public while providing high quality care.

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Information technology can be used to facilitate effective communication. Developing communication support is key when managing risk and offers advantages for workers including improved awareness of known risks, reduced violence-related incidents, and protection from harm (Public Services Health and Safety Association [PSHSA, 2017]). This proposal aims to identify an opportunity to improve communication and implement violence screening for all patients presenting to the emergency department (ED). When a patient is identified as a potential risk for exhibiting violence towards healthcare workers or other patients, the patient would be flagged in the electronic patient record (EPR) communicating the risk of violence to other inpatient units and disciplines, so that proper security precautions can be put in place to ensure the safety of staff and other patients.

**Formulation and Scope of Informatics Problem**

“Ontario nurses….are facing an “epidemic of violence” caused by government and hospitals’ failure to safeguard them from abuse, assault and sexual harassment…” (The Star, 2017, para 1). While the provincial government and unions are working to make hospitals a safer place to work, violence across healthcare persists further justifying the need to increase violence prevention measures in an effort to protect healthcare workers and the public (Stene, Larson, Levy, Dohlman, 2015). In Ontario, nursing staff can log into computers and flag potentially dangerous patients (PSHSA, 2017). However, this is not currently done at time of triage as part of the University Health Network’s (UHN) processes.

UHN is located in Toronto, Ontario and includes five organizations:  Toronto General Hospital, Toronto Western Hospital, Princess Margaret Hospital, Toronto Rehab Institute, and the Michener Institute. The EPR is used across the organizations for accessing and sharing patient information. While some of the inpatient units, such as geriatrics rehab, perform routine patient behavioural assessments, there is no standard procedure for violence screening in the ED. A violence screening tool used to identify and flag potentially violent patients at time of triage can help reduce the potential for workplace violence. The triage system prioritizes patients as well as obtains important information related to healthcare and treatment (Nursing Times, 2001). The information technology (IT) solution being proposed will focus on patients and their family members, as they are the main source of violent incidents (Zhao et al., 2016).

**Significance of Informatics Solution**

Workplace violence makes nursing one of Canada’s most dangerous professions (Occupational Safety and Health Administration [OSHA], 2015). In Ontario, nurses reported more than 760 incidents of violence between 2008 and 2013 (The Star, 2015). Workplace violence has adverse consequences at the individual, organizational and societal levels (Zhao et al., 2016). Assaults include events resulting in serious injury or death (Registered Nurses Association of Ontario [RNAO], 2009). Workplace violence is defined as physical violence, harassment intimidation and behaviour that may result in harm (Stene et al., 2015). Victims suffer physical pain as well as debilitating emotional and psychological effects, such as post traumatic stress disorder (PSHSA, 2017). Healthcare workers who have experienced workplace violence at an individual level show signs of depression, anxiety, higher suicide rates, low job satisfaction, low work performance efficiency, and poor physical health status all of which influence the quality of care provided (Zhao et al., 2016). Such adverse outcomes could affect organizational costs including higher employee turnover rates and greater risk for injury (Zhao et al., 2016). Implementing violence screening at triage would reduce the risk of violence in the workplace and promote a safe environment for healthcare workers and the public.

Under the Occupational Health and Safety Act, employers are required by law to take every reasonable precaution to protect workers, including disclosure of information pertaining to a violent or potentially violent patient (PSHSA, 2017). According to the Registered Nurses Association of Ontario (RNAO), “a healthy work environment is…a practice setting that maximizes the health and well-being of nurses, quality patient/client outcomes, organizational performance, and societal outcomes” (RNAO, 2009, p. 26). UHN must improve safety measures facilitating a safe work environment for their staff. Recommendations that have been made include personal monitors, alarms, and identification of violent patients (Stene et al., 2015). Implementing the proposed intervention would comply with Occupational Health and Safety regulations as well as recent violence prevention recommendations.

Healthcare workers have the second highest number of reported injuries in the province experiencing daily threats that are “unacknowledged, dismissed, or tolerated by administrators and regulators” (The Star, 2017, para 2). A number of factors contribute to violence in the healthcare environment including, inadequate policies for preventing and managing violent incidents (Registered Nurses Association of Ontario [RNAO], 2008). Implementing the proposed IT solutions would assist employers to implement policies, procedures and practices that promote the safety and well-being of nurses (RNAO, 2008).

Violence and aggression in the workplace occur most frequently in healthcare settings (PSHSA, 2017). As many as 30% of violent incidences reported occur in such settings (PSHSA, 2017). Employers are responsible for providing all workers at risk with information about an individual presenting with a history of violence (PSHSA, 2017). Workplaces must implement effective prevention and safety measures, such as the proposed solution, to ensure worker and patient safety (PSHSA, 2017).

**Current Process**

Toronto Rehab Institute consists of a geriatric psychiatric unit responsible for the care and management of patients presenting with symptoms of Alzheimer’s disease and dementia. Patient and staff safety is a primary concern, as patients admitted to the unit generally present with aggressive and violent behaviours. Due to patient risk of self harm and harm to others, environmental safety protocols have been put in place. The unit is locked and only accessible through a key card carried by staff and security. All staff members carry code white pendants on a lanyard to ensure they have access to security and are able to call for staff assistance in any area on the unit. Additionally, staff assistance and code white buttons are set up throughout the units, in patient rooms and common areas.

Patients entering the unit with a history of violent behaviour are placed on a behavioural safety alert (BSA). The BSA is entered as a flag into the EPR and is accessible and transferable across UHN hospitals. The BSA is highlighted on a whiteboard system for staff to quickly reference (See Appendix A). The symbol “B” in bright yellow will provide staff with a quick alert that the patient has the potential to be violent.

**Environmental Risk Analysis**

Annually, 28,065 patients are treated in the ED at Toronto General Hospital (University Health Network [UHN], 2017a). The ED provides expert management, treatment and assessment of all walk-in patients outside of obstetric and paediatric populations. The emergency team consists of nurses, nurse practitioners, nursing students, medical students, doctors, residences, technicians, security and volunteers (UHN, 2017a). Upon arrival, patients are welcomed by security, volunteers or nurses in the triage department to determine the type of injury and specialized care that is needed (UHN, 2017a). Patients are then required to wait for assessment by nurses and doctors. Depending on the complexity of their health needs, wait times range from 4.2 hours for uncomplicated injuries to 18.9 hours for more complicated health needs (OMHLTC, 2017). Since Toronto General Hospital is a teaching hospital in downtown Toronto, there is a larger volume of patients with increasingly acute healthcare needs.

All UHN staff are trained in nonviolent crisis intervention to ensure their safety as the training provides staff with the skills to deescalate potentially violent situations (UHN, 2017a). Incident reporting systems are put in place for nurses to disclose any violent situations or encounters that result in injury (University Health Network Corporate Intranet [UHNCI], 2006). Unfortunately, there is no reporting system for minor injury, verbal assault of risk of violence. When staff members are physically injured by patients and submit an incident report, there is generally a follow-up with occupational health and safety and management (UHNCI, 2006). Additionally, incident reports are not consistently or accurately submitted as staff sense it is not useful and there is no follow-up action or intervention (Stene et al., 2015). Currently there is no evaluation plan available to assess risk factors for aggression or violence (UHNCI, 2006).

As the first line of contact with patients, nurses are at a greater risk for violence at triage, in the ED (Canadian Nurses Association [CNA], n.d). Stress, high turnover rates, crowded space and high pressure environment often promote triggers for violence or aggression (Occupational Health and Safety Association in Healthcare [OHSAH], 2005). Because of this, it is essential that nurses complete a screening tool at triage to assess patient’s medical history, delirium, history of violence and violent behaviour, level of agitation and environmental triggers.

**System Analysis**

The RNAO (2008) recommended the development and implementation of specific strategies such as a system to identify and flag situations that could create a potential for violence. Completing a thorough patient assessment is essential to promote and develop adequate safety interventions to prevent harm to staff and other patients (OSHA, 2015). In order to promote efficiency and transferability of this information, utilizing the screening tool in EPR allows information to be accessible to all healthcare providers. If patients are at risk or presenting with verbal and physical agitation, they would be flagged in the EPR so other units, security and healthcare professionals are aware of the risk. The patient flag will also appear on the whiteboard patient census list at the nursing station. Additionally, staff from other units would be aware of this information if a patient is being transferred through accessing EPR.

Flagging is “a standardized method of communicating safety-related concerns to workers” (PSHSA, 2017, p. 2). Flagging should be a part of prevention and risk management planning and complemented by enhanced prevention practices such as individual client assessments (PSHSA, 2017). The use of electronic medical record alerts is the most common approach to flagging potentially violent patients (PSHSA, 2017). Flags are added to the chart in such a way that they stand out and are easy to understand. Active flags are displayed as pop-up’s each time the file is opened whereas passive flags are visible on the screen at all times (PSHSA, 2017).

UHN utilizes EPR for sharing patient information. Within the geriatric psychiatric unit, for example, patients are assigned a BSA within 24 hours of admission (Woods, & Almvik, 2005). This is due to a predetermined history of dementia presenting with a history of aggressive behaviours. The BSA is based on the Broset Violence Checklist (Woods & Almvik, 2005). The checklist includes factors such as confusion, irritability, agitation, physically threatening, verbally threatening, assaultive and use of attacking objects (Woods & Almvik, 2005).

Through EPR, the evaluation tool will be utilized by triage nurses on initial assessment of patients entering the ED. The evaluation tool will alert the system to initiate a BSA based on the level of patient risk for aggressive or violent behaviour. The BSA will be transferable to other units if a patient is transferred and will remain in their electronic health record.

The tool utilized by the triage nurse in the ED gives a quick assessment of the patients coming into the department. The Broset Assessment portion of the tool is graded on a zero to two scale. A score of two or greater indicates that the risk of violence is high and safety interventions and preventative measures should be put in place (Woods & Almvik, 2005). Nurses should also be aware of the policies and procedures of managing a violent episode. The environmental assessment portion will give managers and supervisors the ability to audit charts and determine whether the environment played a role in any violent episodes in the ED (Emergency Nurses Association, 2015). This too can be transferred to the other units and adapted as needed to suit the unit (See Appendix B).

**Feasibility of Solution**

UHN plans to implement a violence screening tool to reduce the risk of violence across the organization and improve safety processes that are currently in place. The BSA was successfully implemented across the geriatric unit and following its success administration saw the potential benefits to its implementation across the organization. A flagging system for violence is in line with the Public Services Health and Safety Association’s (2017) recommendation to implement a flagging alert program to communicate the risk of violence to health care teams. This is a proactive approach to managing violent and aggressive behaviours thereby, reducing the risk of violence to healthcare workers while providing patients with the best possible care (PHSHA, 2017). Systems currently in place were evaluated for compatibility with the proposed changes and updates will be done as necessary and in conjunction with EPR upgrades.

IT specialists employed by UHN will install the BSA into EPR. Since the software is currently in use at the hospital, staff members are aware of how to navigate through the multiple screens. Because of this, training sessions can be focused on accessing the BSA, how to complete the evaluation tool, scoring to initiate a BSA and where to locate it in the EPR. IT specialists will also complete any software upgrades that are required through the night to minimize disruptions to nursing workflow. Staff will be notified of the EPR downtown to update this software into EPR. An email notification from shared information management will be sent to all staff a week in advance. Updates will take place between the hours of 2400 and 0200. This will occur over the course of one month beginning August 1, 2018. In order to keep management aware of the number of flagged patients in the system, IT specialists will also create a dashboard app that provides real time data on the current number of patients flagged and the units they are on. This will assist with coordinating additional staff and allocating the appropriate number of security as required.

Since the BSA will be initiated in the triage in the ED, it was noted that new desktop computers would be required to ensure nursing staff can complete the assessments at point of contact. In the ED there was a lack of printers noted, which would affect the ability to provide patients with the information of patient flagging (ie. patient handout). To provide full disclosure, two printers were needed to be purchased. All of the necessary equipment will be purchased and put in place prior to the go live date.

**Hardware/Software Selection**

The hospitals under the UHN umbrella all utilize the EPR system. Because of this, implementing a flagging system that is transferrable to all sites is possible. With the assistance of IT specialists, the flagging system can be easily inputted, along with the electronic violence screening assessment.

In order to ensure triage staff nurses have the tools accessible to conduct a BSA in real time (at first encounter), an environmental scan was conducted. It was identified that in order for the triage staff to complete the assessment effectively, four desktop computers would be necessary at the triage station. Additionally, once the patient is in the ED a workstation on wheels (WOW) would be necessary for nursing staff to continue with ongoing assessments and documentation. Six WOWs, which include an ergonomic stand on wheels and laptop, were purchased to facilitate this workflow. Since the WOWs are mobile they can be transported by the nurses.

A whiteboard, a computer patient census screen, will be accessible in the nursing station as a quick reference for staff (nurses, security, and the interdisciplinary) to identify patients that present a safety risk or have a history of violence. This will ensure proper safety precautions are in place when approaching a patient and safety is maintained. The BSA is how the patient is flagged and is represented by a “B” symbol in bright yellow on the whiteboard system. This allows staff to obtain a quick point of reference regarding patient history and risk of aggressive behaviour. As a result, staff members are able to implement and promote the safety protocol such as carrying a code white pendent, bringing an extra staff member when approaching the patient, asking security for support, and removing sharp objects from the room. Since the hospitals currently use whiteboards, no additional ones needed to be purchased. See Appendix C for the floor plan of where the computers, printers and whiteboards will be placed in the ED.

For nurses to be able to effectively communicate the flagging tool to patients and families, two multi-purposed printers were purchased. This allows for the printing of the assessments, when required, as well as patient and family handouts.

**Implementation Plan**

An implementation plan has been created to identify the tasks, subtasks, person(s) responsible, resources needed, and expected completion dates (See Appendix D). UHN plans to go live with the proposed IT solution September 1, 2018. The methods chosen focus on preparing the organization for change, effective communication, champions, education and complementing supports currently in place, as well as the creation of electronic resources. The goal is to reduce the potential for violence in the workplace and create a safe work environment for staff and patients while providing high quality healthcare.

When preparing the organization for change, it is critical to consider attitudinal features of the organization including motivation, leadership, buy-in, climate and communication (Novick et al., 2015). Buy-in is having people believe in the change and has a direct effect on the success of project implementation (Novick et al., 2015). Skepticism and apprehension are inevitable when implementing change therefore ensuring buy-in from stakeholders, administration and staff is a critical step in the implementation process.

The implementation process includes the use of super users. Super users will advocate for the change, go above and beyond, and to make it personal (Novick et al., 2015). Super users will be selected from front line staff, nurses and security. These individuals are selected by the project leader, ED manager and the educator to promote teamwork, facilitate groups, lobby administrators for funds, inspire colleagues, and confront implementation challenges (Novick et al., 2015). These individuals move the implementation process forward and are proponents of its success.

The project team wants to create a collaborative climate with effective communication patterns as this facilitates implementation (Novick et al., 2015). Communications will include a notice in the UHN newsletter and the UHN website, the use of social media (ie. Facebook, LinkedIn, and Twitter), adding the newly developed policy as a staff e-learning module, posters will be posted around all UHN hospitals to notify staff and patients of the change, and daily safety huddles will be initiated to discuss any areas for improvement or successes with the new system. Lastly, a clear and complete education plan is imperative to successfully program implementation.

**Education Plan**

To improve staff safety with regards to workplace violence, it is imperative that all staff, not just nurses, be educated (OHSAH, 2005). Each professional will be made aware of the policy surrounding workplace violence, as well as where to find the flag in EPR. Nurses will be educated on how to conduct the assessment as well as how to enter the data into the patient’s electronic health record. New employees, as well as reassigned employees will attend training sessions as part of their orientation (OHSAH, 2005; PSHSA, 2017). Retraining will be done on an annual basis to keep staff informed of updates and changes through e-learning and in class computer sessions with nurse educators (OHSAH, 2005; PSHSA, 2017). Adequate resources, both financial and non-financial, will be allocated to ensure program success (PSHSA, 2017). Managers and supervisors will provide staff members with adequate time to review the policies and procedures, to ensure understanding as well as compliance to carry out the flagging program.

Timelines are essential to keep the program on track and ensure all staff members have completed the review prior to the program roll out. See Appendix Efor the education training plan. Training will include all Registered Nurses, Registered Practical Nurses, clerical staff, attendants, security, managers and supervisors. Part of the training will include a virtual case scenario for staff to input information related to a fictional patient into the EPR simulation system. It has been noted that staff members who routinely work night shift feel neglected when it comes to staff education sessions (Mayes & Schott-Baer, 2010). In order to prevent this, sessions will occur at varied times throughout the day, evening and night to accommodate shift workers and ensure all members of the organization have access to the training sessions.

Super users will be identified to assist with ongoing education and staff support throughout the roll out of the program. A super user is a staff member who is identified as one who has a higher-level of software skills that is able to assist others with its use (McIntire & Clark, 2009). Having a super user available on each shift for the first few weeks of the implementation process will allow staff members to have a resource to access if concerns arise. Having front line staff be part of the training process will help ensure buy-in for the new program. Throughout the month of June 2018, super users will have their training as well as develop cheat sheets for the units to have for reference. The remainder of staff members will be trained throughout the month of July 2018. It is important to time the training sessions close to the roll out date, not too many months before the program starts (Hilaire, 2015). This allows for staff to retain the information they have learned and be able to utilize what they have learned sooner. During the last two weeks in August 2018, staff will be emailed the policy from their managers to review and sign off. The go live date will be Sept 1 2018.

**Evaluation Plan**

Evaluation is essential to determine the effectiveness of a program once it is implemented. It is necessary to evaluate the program at set intervals to ensure no changes are required and to provide staff an opportunity to bring forward concerns. See Appendix F for the evaluation plan. A survey will be sent out to all staff utilizing the program at 3 months, 6 months and 12 months post implementation. See Appendix G.

In addition to evaluating the effectiveness of the tool, it is important for managers and supervisors to assess the patients that have been screened and any environmental issues that may have existed when the violent episode occurred. Completed quarterly, this will give insight into how future episodes can be averted.

A cost-benefit analysis (CBA) was conducted to assess whether the implementation of this program is valuable and essential for staff safety (See Appendix H).

In order to assess effectiveness and usefulness of the violence screening tool and BSA, continuous evaluations and assessments need to take place. Evaluations will be conducted by nursing, front line staff, and security (Catwell & Sheikh, 2009). Short term and long term evaluations will take place to ensure timely interventions and adaptation of the electronic health system, thereby, maximizing benefit and minimizing risk to patient and staff. The use of the simplified evaluation methods developed by Catwell and Sheikh (2009) provides a straightforward tool to assess effectiveness and benefit of technological interventions and user surveys. Shared information management will email surveys to front line staff to assess the effectiveness of the tool, nurse educators and advanced practice leaders will be responsible to follow-up with the inter-professional team regarding responses and feedback. Use of email surveys allows management staff to reach a larger census of clinical staff (Catwell & Sheikh, 2009).

Incident reports and work place injuries will be reviewed on a quarterly basis. This information will be compared to 2017 quarterly report prior to evaluation implementation.

**Potential Issues**

While the background research identifies many favourable outcomes to violence screening and patient flagging, implementing new tools and processes pose potential challenges and issues. Patient privacy, stigmatization, full disclosure, social and financial issues will be addressed and potential solutions will be provided.

**Patient Privacy**

There are sometimes concerns that flagging a patient’s violent history contravenes the privacy legislation such as the Personal Health Information Privacy Act (PHIPA). While PHIPA protects patient privacy it also protects the worker’s right to safety. PHIPA allows the collection, use and disclosure of risk and violence related information (1) when required by Occupational Health and Safety Act (2) for the purpose of risk management and (3) to reduce or eliminate a significant risk of bodily harm to an individual or a group of individuals (PSHSA, 2017). Therefore, the proposed solution does not breach patient privacy.

UHN will make every possible effort to maintain patients’ privacy. Only pertinent information will be made available to staff. For example, if a patient has a history of hitting, this information will be made available to staff, but not all of the patient’s medical history will be disseminated to staff (Ministry of Labour, 2016). This identifies the risk of violence to healthcare workers while adhering to patient privacy and confidentiality legislation.

**Full Disclosure**

Consent and knowledge of violence screening is required (PHSA, 2016). The information collected can be transferable to other units and other staff members involved in the patient's care so they are aware of the potential safety risk. Flagging the patient with a history of violence or potential of violence ensures that precautions are put in place to maintain staff safety (PSHSA, 2016). PHIPA requires organizations to inform patients that they are being identified as a safety risk to staff and the public (Public Service Health and Safety Association [PSHSA], 2016). As part of UHN’s flagging protocol a handout has been developed for patients and family members. The handout will inform them of their flagged status and how the information will be disclosed within the organization to promote their safety and the safety of others. UHN plans to provide the patient with the literature to educate and explain the rationale and hospital processes in an effort to keep them safe. See Appendix I for a template of the handout.

**Social**

While universal violence screening is largely advocated, it can be difficult to implement in clinical practice. Violence screening is conducted across healthcare settings including physician offices, clinics, outpatient areas as well as emergency departments (Guillery, Benzies, Mannion & Evans, 2012). There are numerous social factors that influence healthcare workers’ ability to conduct violence screening including a lack of time to build a trusting relationship with the patient (Gregory, Rolniak, Hyman, MacLeod, & Savage, 2000; Guillery et al., 2012), a lack of privacy to conduct a screening assessment, discomfort with violence, fear of offending the patient, and expected futility of intervention (Gregory et al., 2000).

A language barrier was also identified as inhibiting a violence screening assessment (Guillery et al., 2012). Interpreters are available in person and over the phone (Guillery et al., 2012). UHN offers language services if the patient prefers to speak in their primary language (University Health Network, 2017b) mitigating language as a barrier.

Healthcare workers also identified a lack of information regarding the screening tool, a lack of instruction on how to ask questions about violence and not knowing what to do in the event of patients disclosing information about violence as barriers (Guillery et al., 2012). Quality management and implementation of the proposed intervention will include appropriate and adequate staff education (Gregory et al., 2000). The content covered in staff training will include how to use and interpret the screening tool, as well as effective, compassionate, and appropriate communication techniques when conducting the assessment at triage.

**Stigmatization**

Some healthcare workers are concerned that disclosing violence related information will lead to stigmatization. However, real life case studies show that implementing safety measures for workers lead to improved patient outcomes and that specific details do not need to be communicated, rather being aware of the increased risk of violence is enough to allow workers to be protected (PSHSA, 2017). On the other hand, being exposed to violent incidents can bring about the stigma of victimization for the healthcare worker. When healthcare workers do not feel supported by management, they often will not disclose these incidents (Clements, DeRanieri, Clark, Manno & Douglas, 2005). Staff will be made aware of administrative support, how the screening tool will be interpreted and the impact on worker safety.

Additionally, there is a risk for bias when front line staff members are assessing the patient to determine their risk factor for aggressive behaviour (PSHSA, 2016). The information collected during the screening is based on subjective interpretation of the patient’s environment and the patient’s behaviour therefore, staff need to be cognizant of these biases. Assessments must be as objective as possible to ensure that a BSA is ethically and clinically appropriate. Staff education will include stigmatization, victimization, and awareness of personal biases thereby reducing the risk of the issue across the UHN.

**Financial**

Financial challenges could affect the organization’s ability to increase staffing to accommodate practical implementation of the tool in the ED (Novick et al., 2015). “The influence of financial concerns and profit-driven management models…significantly impacts the implantation of workplace violence prevention programs” (Blando, Ridenour, Hartley & Casteel, 2014, p.8). Unexpected issues may arise, which can affect the budget and impact the project (Clements, 2017). Costs are not limited to hardware and software. One must take into account the possibility of glitches, which may affect the budget (Brooks & Grotz, 2010).

Furthermore, there may be difficulties with space, scheduling, recruitment and staffing (Novick et al., 2015). The project lead and his or her team have considered these costs and they have been included in the planning process. Finances have been secured from the Ministry of Long Term Care and include contingency funds to cover unexpected costs. The person responsible for managing the budget will distribute these funds accordingly. When barriers are considered in the planning and implementation process, solutions can be derived and implemented to facilitate the transition and changes.

**Conclusion**

Staff and patient safety is at the forefront of every hospital organization. Many interventions can be done to ensure those at the front line are protected, as well as other staff who may come in contact with a potentially violent patient during their hospital stay. With the creation and utilization of a violence screening tool and a BSA, staff across the UHN will be notified of the potential for violence for particular patients. This will allow staff members to institute procedures to protect themselves, the patients, and the public. Flagging systems, like the one proposed, can be very beneficial, but can also pose some issues, such as privacy, stigma and financial concerns. Addressing these concerns, as well as educating staff and patients about the interventions will ensure a seamless transition to the new process.

Developing a violence risk assessment tool allows for staff members to implement appropriate safety interventions. Ensuring a safe environment for ED staff promotes retention, satisfaction and security. Utilizing health information technology encourages consistency and transferability of the assessment tool. It also provides accessibility for all staff to ensure they understand the safety risk and that appropriate security measure are put in place.

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Appendix A

Figure 1.0 EPR Desktop View with BSA alert

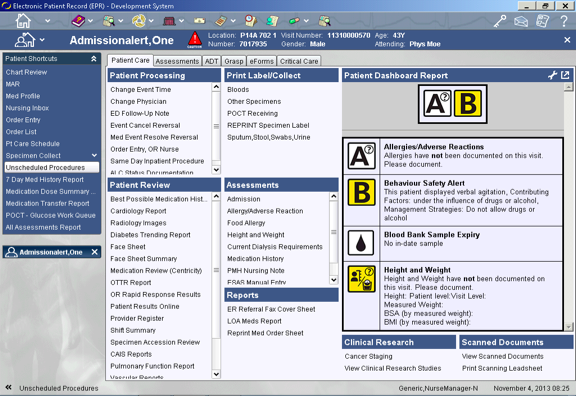


Figure 1.1 BSA alert Symbol

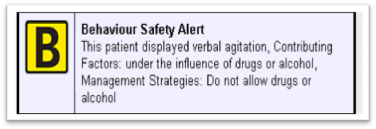
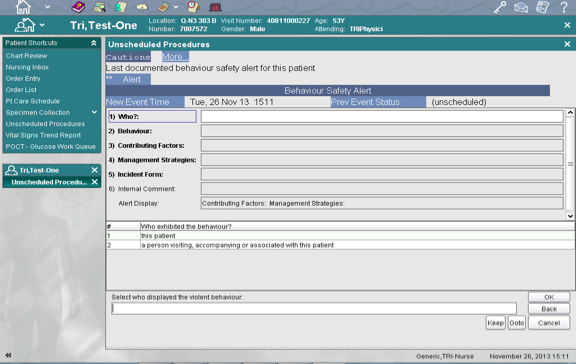


Figure 1.2 BSA evaluation tool



University Health Network. (2006). Occupational health & safety: Violence & domestic violence in the workplace. Retrieved from http://documents.uhn.ca/sites/uhn/Policies/occupational\_health\_and\_safety/staff\_safety/uhnflv027838-doc.pd

Appendix B

Table 1.0 Violence Risk Assessment Tool

|  |  |  |  |
| --- | --- | --- | --- |
| Patient Name: | Questions: | Yes (Y) or No (N) |  |
|  | 1. Previous or current violent behaviour (aggressive act- shoving, kicking, punching) |  |  |
|  | 1. Previous or current substance abuse (alcohol, medications, other substances-cannabis, heroin etc., solvents-glue, aerosol) |  |  |
|  | 1. Previous or current mental illness (schizophrenia, delusional disorder, psychotic affective disorder) |  |  |
|  | 1. Expressing suspicion, verbally or non-verbally- appears “on guard” of the environment |  |  |
|  | Broset Assessment | Yes(Y) or No (N) | Score  0-small  1-moderate  2-severe |
|  | 1. Patient appears confused (person, place, time etc) |  |  |
|  | 1. Patient appears irritable |  |  |
|  | 1. Patient appears boisterous (overtly loud, noisy- slamming doors, shouting) |  |  |
|  | 1. Patient is physically threatening |  |  |
|  | 1. Patient is verbally threatening |  |  |
|  | 1. Patient has attacked an object (throwing an object, banging or smashing windows, kicking, banging or smashing furniture) |  |  |
|  | Environmental Assessment | Yes (Y) or No(N) |  |
|  | 1. Overcrowding/overcapacity in ER |  |  |
|  | 1. Noisy environment |  |  |
|  | 1. Wait time greater than 1 hour |  |  |
|  | 1. Short staffed? |  |  |
|  | 1. Any “Code Whites” called on shift? |  |  |

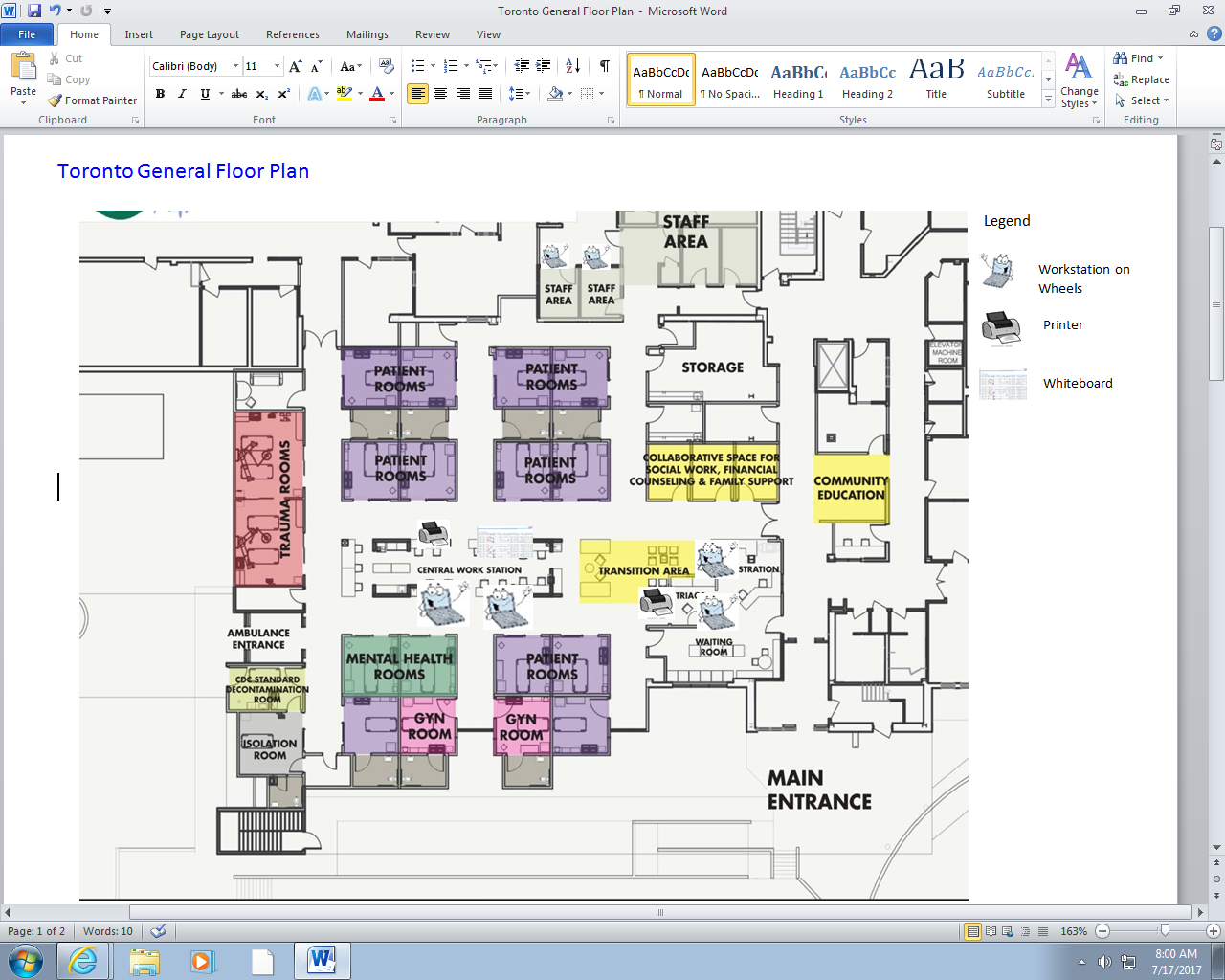
Almvick. (2015)

Woods, P., & Almvik. R. (2005)

<http://www.forensic-psychiatry.no/violence_risk/v_risk_10_english.pdf>

Appendix C

Figure 2.0 Toronto General Floor Plan with Proposed WOW, Printers and Whiteboard Placement



Appendix D

Table 2.0 Implementation Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks and Subtasks** | **Person(s) Responsible** | **Resources Needed** | **Start and Finish Date(s)** |
| Obtain organizational approval | -Project Lead | -Meeting space | December 2017 |
| Establish a project team including “super users” and person responsible for managing budget | -Project Lead  -ED manager  -Educator | -Office/meeting space  -Computer | -A team will be selected (January 1-7, 2018) |
| Current key resources for evidence based violence screening tool for education content | -Educator  -Project Lead  -Safety Committee | -Scholarly databases  -Computer  -Guidelines and recommendations | -A list of key messages for class content will be developed (January 7-12, 2018) |
| Clear and timely communication with staff, patients and visitors regarding changes | -IT  -Privacy Officer  -Communications Officer | -Printing materials for posters,  -Computer  -Internet access | These communications will begin January 2018 and will continue through the implementation and evaluation phase. |
| Develop electronic manual that is meaningful to staff useful for education | -Educator  -Project Lead  -Communications Officer  -Information technology | -Computer  -Guidelines and recommendations  -UHN core values | -Curriculum will be developed between (January 7-31, 2018)  -First draft will be submitted to Communications Officer for approval of content and to verify that material complies with UHN values and privacy legislation  (February 1-9, 2018)  -Educator/leader will have time to make revisions to the content (February 11-23, 2018)  -Will re-submit to  Communications Officer for final approval (February 25-March 2, 2018) |
| Create policy and procedure document | -Communications Officer  -Privacy Officer | -Computer  -Meeting space | July 2018 |
| Install, update, upgrade necessary software and hardware | -Educator  -Project Lead  -Super Users  -IT | -Equipment  -Hardware/Software  -Space and equipment | August 31, 2018 |
| Order/obtain equipment, and supplies | -Project Lead |  | July 1, 2018 |
| Create schedule to reflect increased staffing | -Scheduling | -Telephone  -Computer | Completed by July 31, 2018 |
| Schedule and deliver education to staff | -Project Lead | -Financial means to accommodate education  -Computer Room | Course material will be delivered to super users June 2018 and to all other staff July 2018 |
| Develop and implement evaluation plan | -Project Lead  -Educator |  | An evaluation plan will be developed between (January 1-March 31, 2018)  The evaluation plan will be implemented after September 1, 2018 |

Appendix E

Table 3.0 Education Plan

|  |  |  |
| --- | --- | --- |
| **Education Plan for staff** | | |
| Date | Staff | Resources |
| June 1-30, 2018 | 2 “super users” on each unit will assist when the program goes live  Train these staff on how to input the flag and develop cheat sheets to have on the units | $ for paid training  2 hour sessions  Computer room  computers  Paid facilitator  Laminated cheat sheets for each unit (step by step instructions for inputting data)  “Test environment” for superusers to practice inputting data |
| July 1-30, 2018 | RNs  RPNs  Attendants  Clerical  Security  Managers/supervisors | $ for paid training  1 hour sessions  Computer room  Computers  Paid Facilitator  Ensure times are available to accommodate shift workers (sessions for days, evenings and nights) |
| Aug 1-31, 2018 | Superuser  -  test environment with “dummy patients” to assess for any issues  - virtual scenario through EPR to test inputting a simulated patient into the system based on a case scenario example | Computer room  Computers  Facilitator |
| Aug 14-31, 2018 | Hospital policy roll-out to all staff members. Policy review and sign off prior to go live date | Policy to be emailed from Managers/supervisors to all staff with sign off to be completed by Aug 31st 2018 |
| Go Live- Sept 1st, 2018 | For 2 weeks, ensure 1 super user is on each shift to assist staff with any issues |  |

Appendix F

Table 4.0 Evaluation Plan

|  |  |
| --- | --- |
| **Evaluation** | |
| Dec 2018 | * Survey monkey to staff utilizing the flagging system to assess their opinions. Audit to assess usability, functionality, frequency of use. Has information been entered correctly? * Audit of incident reports and workplace injuries * Audit environmental section of tool |
| March 2019 | * Survey monkey to staff utilizing the flagging system to assess their opinions. Audit to assess usability, functionality, frequency of use. Has information been entered correctly? * Audit of incident reports and workplace injuries * Audit environmental section of tool |
| June 2019 | * Audit of incident reports and workplace injuries * Audit environmental section of tool |
| Sept 2019 | * Survey monkey to staff utilizing the flagging system to assess their opinions. Audit to assess usability, functionality, frequency of use. Has information been entered correctly? * Audit of incident reports and workplace injuries * Audit environmental section of tool |

Appendix G

Table 5.0 Staff survey

|  |  |
| --- | --- |
| **Survey Questions for High Risk Areas** | |
| 1.) Do you find the flagging tool effective for identifying patients at risk for violence? | 1. Yes           b) No |
| 2) How many patients have you cared for that have been flagged for violence? | 1. <5          b) 5-10          c) 11-15         d) >15 |
| 3) Does having a patient flagged change the way you approach their care? | 1. Yes           c) No |
| 4) What changes, if any, would you suggest be implemented into the flagging system to improve care? | 1. Nothing 2. Explain\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Appendix H

Table 6.0 Cost-Analysis

|  |  |  |
| --- | --- | --- |
| **Hardware** | **Number** | **Cost** |
| **Ergotron Sv41-6100-0 Style view laptop carts** | **6 @ 1508.85 each** | **$9,053.10** |
| **Acer Aspire 15.6” laptop** | **6 @ 849.99 each** | **$5,099.94** |
| **Acer Aspire all in one desktop computers** | **4 @ 549.99 each** | **$2,199.96** |
| **Lexmark Laser Multifunction printers** | **2 @ 1880.95 each** | **$3,761.90** |
| **Installation** | **Price included in equipment cost** | **$0.00** |
| **Electronic Whiteboard** | **Already in use** | **$0.00** |
| **TOTAL** |  | **$20,114.90** |
|  |  |  |
| **Software** | **Hours/Wages** | **Cost** |
| **HER** | **Already in use** | **$0.00** |
| **IT support to create and implement tool** | **20 hours @ 22.56/hr** | **$451.20** |
| **TOTAL** |  | **$20,566.10** |
|  |  |  |
| **Training** | **Hours/Wages** | **Cost** |
| **3237 Registered Nurses** | **1 hour @ $38.19** | **$123,621.03** |
| **362 Registered Practical Nurses** | **1 hour @ $24.52** | **$8,876.24** |
| **150 Clerical staff** | **1 hour @ $21.18** | **$3,177** |
| **20 Psych. Attendants** | **1 hour @ $21.50** | **$430.00** |
| **20 super users (various positions)** | **2 hours @ avg. $28.80** | **$1, 152.00** |
| **TOTAL** |  | **$137,256.27** |
| **Cost Benefit** | | |
| **Incident** |  | **Amount** |
| **Injuries requiring days off work for one RN\*** |  | **$3,138.53** |
| **Stress leave (6 month) one RN\*** |  | **$36,662** |
| **To replace one RN (recruit, hire, orientate, train etc.)\*** |  | **$100,000** |
| **TOTAL** |  | **139,800.00** |

**\* (**<https://www.osha.gov/Publications/OSHA3826.pdf>**)**

Appendix I

Figure 3.0 Violence Prevention and BSA implementation Patient and Family Pamphlet

