INPATIENT SUICIDE PREVENTION

A Review of the Patient Safety Authority’s Keys to Ligature Risk Assessment Project

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It takes less than five minutes and 18 inches from the ground for a person to self-asphyxiate from hanging. According to the American Foundation for Suicide Prevention (AFSP), suicide is currently the 10th leading cause of death in the United States and 11th in Pennsylvania. Of those deaths, hanging from a ligature point is the most common method of suicide in inpatient healthcare facilities.

It should be no surprise that the plethora of ligature points in hospitals is a major patient safety concern. For these reasons, the Patient Safety Authority (PSA) launched a project in July 2018 with the aim to assist Pennsylvania facilities in identifying and mitigating ligature risks.

The Centers for Medicare and Medicaid Services (CMS) and other regulatory agencies have increased their emphasis on facility efforts to identify and mitigate the risks for harm by hanging. This has led to an increased need for facilities to dedicate time and resources to the issue. To address this need, the PSA developed and implemented the Keys to Ligature Risk Assessment project for all acute care, children’s, critical access, long-term acute care, rehabilitation, and psychiatric hospitals in Pennsylvania. From July 2018 through June 2019, the project team conducted a ligature risk identification contest, presented regional education programs, completed facility-specific gap analyses, and shared available resources for further engagement by facility staff.

To further refine the goals of the project, the team tracked ligature-related events within the Pennsylvania Patient Safety Reporting System (PA-PSRS). Prior to 2015, variations in the reporting data made it difficult to identify and interpret ligature-related events. The 2014 Final Guidance for Acute Healthcare Facility Determinations of Reporting Requirements Under the Medical Care Availability and Reduction of Error (MCARE) Act, effective as of April 1, 2015, required these events to be reported as Serious Events if they were self-harm or suicide attempts resulting in death or harm to the patient.

Based on a review of the data, the abundance of literature on the topic, and escalating regulatory challenges for facilities, it was clear that ligature risk would continue to be a growing concern among all Pennsylvania hospitals. Of the facilities completing a gap analysis as part of the project, 18.4% had been cited during a survey, most commonly by The Joint Commission or Pennsylvania Department of Health (DOH) on behalf of CMS. Of the specific citations shared, bedroom or bathroom doors and paper towel dispensers were the most-identified risks. Among facilities completing a gap analysis, the rate that had been cited on issues related to ligature risk remained consistent, independent of whether the facility offered behavioral health services. This was also reflected in discussions with facilities, reinforcing that this issue extended beyond dedicated behavioral health facilities and units to more general inpatient settings.

Many of the facilities engaged in the project had real or anticipated costs for renovations to reduce ligature risks in their physical environment and/or staffing patterns. However, facilities expressed that they had difficulty with identifying products that meet the regulatory interpretations of ligature resistant. Distribution of information to assist facilities with identifying sources of vetted products became a larger priority of the project.

The team kicked off the project with the development of six graphic representations of inpatient care settings: medical-surgical room, emergency room, intensive care room (see Image 1), behavioral health room, corridor, and patient bathroom. Four of these graphics were introduced in a contest to promote awareness and interest in the topic. Participants were asked to identify as many potential ligature risks as possible in each graphic. Each of the “Risky Rooms” were released during consecutive weeks of August 2018 and advertised via email, social media, and the Pennsylvania Department of Health website, with prizes given to participants who identified all risks. (See Image 2.) Throughout the project, 250% of the 11 deaths involved hanging. The bathroom door was identified as the most common ligature point.

*Definition of ligature point as defined by the Centers for Medicare and Medicaid Services (CMS): “Anything which could be used to create a sustainable attachment point such as a cord, rope, or other material for the purpose of hanging or strangulation.”*
The graphics of patient care settings such as this intensive care room.

Image 1: The Risky Rooms contest asked participants to identify the ligature risks in six different graphics of patient care settings such as this intensive care room.

PSA website. In total, 419 entries were received, and a winner who identified the most ligature risks for each graphic was publicly recognized and awarded with a gift card. Several facilities have since been using the collection of Risky Rooms as a training resource for staff. One Western Pennsylvania hospital referenced the graphics during the renovation of their emergency department, and another integrated the graphics during the design of a new facility. The high number of respondents and ensuing positive reception to the Risky Rooms graphics suggest the PSA could use similar contests in future engagement efforts.

The project team developed a four-hour Proactive Ligature Risk Assessment education program and presented it regionally in September 2018 to 121 attendees across four dates and locations. Attendees of these programs included Pennsylvania hospital patient safety professionals, leadership, and DOH surveyors and supervisors. The presenters reviewed the general aspects of conducting a proactive risk assessment and explored the identification and mitigation of ligature risks. These sessions also served as the unveiling of all the risks identified in each of the Risky Rooms. In addition to the regional PSA educational programs, adapted versions have been presented to numerous individual facilities and professional organizations, including multiple chapters of the National Association for Healthcare Quality and the Pennsylvania Association for Health Care Risk Management. The PSA continues to provide on-site education on ligature risk assessment to Pennsylvania facilities upon request.

The largest component of the project involved in-person visits to each target facility by their assigned patient safety liaison (PSL). During these visits, the PSL reviewed and discussed ligature-related questions to complete a gap analysis and offered further resources and assistance, which included walking rounds with the facility team to identify and discuss potential ligature points and associated risks, as well as other on-site education. The facilities visited were at different stages of their journey toward a ligature resistant environment. For some, this project was the first step to addressing the issue, while others benefited from the targeted resources and feedback. In all, the gap analyses gave the PSA a snapshot of where Pennsylvania facilities stood pertaining to ligature risk assessment.

During the project period, a gap analysis was completed for a total of 192 facilities, 99 of which did not have a specified behavioral health unit. Each completed gap analysis was reviewed, and three communique were distributed from July 2018 to June 2019 to keep facilities updated. Each communique included a gap analysis data snapshot, a relevant article, and other resources. For facilities that had previously been visited by their PSL and completed a gap analysis, these communique offered an opportunity to stay informed of additional findings and developments. In July 2019, following the completion of the project, the gap analysis data was aggregated and reviewed for noteworthy findings.

Limited conclusions can be drawn from the data, but there were some interesting points for consideration. Of note was that 44% of facilities either did not use or were unsure if they used a validated suicide risk screening or assessment tool. This identifies a knowledge deficit among patient safety staff related to either the method of identifying suicide risk within their facilities or the benefits of using a validated tool. To improve in this area, the PSA shared available validated tools and associated resources with facilities. This put Pennsylvania hospitals in a position to not only enhance patient safety but to proactively address upcoming Joint Commission changes regarding the use of validated tools. Over the project year, there was an increase in the number of facilities both discussing ligature risk with their patient safety committees and providing applicable training to their staff, with an additional 21% of facilities expressing interest in arranging future training. This suggests the PSA’s project had positive effects.

A summary of the project and the experiences and perspectives of two participating facilities were shared via a webinar conducted in July 2019 to 118 attendees. Shawnna Baney-Shaw, risk manager, and Tina Kephart, director of Behavioral Health, both from Mount Nittany Medical Center, shared considerations and challenges of a unit wide renovation. Carol VanZile, director of Behavioral Health Regulatory, Compliance and Accreditation, UPMC Western Psychiatric Hospital, discussed the process of performing ligature and suicide risk reviews and developing mitigation plans in various inpatient care settings throughout the UPMC Health System. Additionally, the PSA shared updated resources and forms from participating facilities during the webinar and on the PSA website.

The PSA learned several lessons while engaging Pennsylvania hospitals on the topic of ligature risk assessment. The approach of using a contest for healthcare workers and focused site visits coinciding with regional education was popular and effective.

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for delivering knowledge and resources. The topic proved to be timely as well; the patient safety information shared with Pennsylvania facilities gave them a foundation to tackle evolving patient needs and impending regulatory requirements. Beyond identifying and mitigating ligature risks, the project highlighted opportunities within Pennsylvania facilities related to general suicide risk assessment and intervention.

For more information on this topic, please visit patientsafety.pa.gov/pst/Pages/Behavioral_Health/hm.aspx.

References


About the Authors

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To access the webinar on ligature risk, please visit https://www.youtube.com/watch?v=COGQ0taTFM.