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Patient Safety Tip of the Week

June 22, 2021

Remotely Monitoring Suicidal Patients in Non-Behavioral Health Areas

One problematic area for hospitals is safely managing potentially suicidal patients who must be housed in non-behavioral health areas of the hospital, such as the emergency department or a med/surg floor. We've done multiple columns on in-hospital suicides (see list below). When patients at risk for suicide or self-harm, elopement, or even jumping from windows are housed in such areas, we typically put them on 1:1 continuous observation. But that is expensive, and we often have a lack of appropriately trained "sitters" to monitor such patients in these areas. And there are many incidents in which an adverse event took place despite the presence of a "sitter".

Researchers at the Brigham and Women's Hospital in Boston (Kroll 2020) assessed the feasibility of using continuous virtual monitoring in such situations. Kroll and colleagues note multiple reasons that make continuous monitoring of such patients difficult:

- The "sitter" or "observer" is most often a non-licensed staff member
- No widespread guidelines exist to direct how precisely continuous observation should be provided
- Continuous observation policies vary widely between institutions
- Even within institutions continuous observation may be carried out in an inconsistent manner
- The job of observing patients is tedious
- Observers often become distracted or engage with patients in ways other than simply watching them
- Patients who undergo continuous observation may experience such interactions either positively or negatively

So, they piloted continuous virtual monitoring as a method of patient observation in which an observer provides continuous observation to one or more patients at once from a central location with the assistance of high-definition live stream video surveillance technology. Their setup of the unit includes a 360-degree view of the clinical area, continuous monitoring by a staff member, and linkage to immediate intervention by staff if called for. Because this was a new concept, the implementation team sought to identify

patients who had a lower risk of impulsivity for assignment to virtual monitoring. They also excluded patients with psychosis, patients at risk for elopement, those with a prior history of attempted suicide or self-harm in hospital, and several other exclusionary criteria. The decision to include individual patients in the virtual monitoring program was made by consulting psychiatrists and nurses together.

A monitoring technician (MT) received a live video stream from a panel of 1-10 patients. The MT had flexibility to reduce the maximum number of monitored patients if they felt the panel was sufficiently acute so that it would be difficult to accommodate new patients.

The MT was housed in a dedicated room with the monitoring equipment. He/she could communicate with patients directly through a speaker box attached to the device and could call the patient's nurse on a cell phone associated with the mobile device if he/she noticed concerning behavior or environmental hazards. He/she could also activate a "stat alarm" if there was no response to urgent phone calls, or there was rapidly escalating behavior, or there was loss of visualizing the patient.

Nurse educators trained nurses on inpatient medical units in the protocol for monitoring patients on suicide precautions, including the option to use virtual monitoring. The MT's also received this training.

The pilot project included 39 patients, 27 (69%) on hospital floors and 12 (31%) in the ED. No adverse behavioral events were reported among this group of patients. In 4 patients the virtual monitoring was discontinued because the patient could not be redirected by the MT or exhibited new signs or symptoms to indicate a higher impulsivity risk, requiring a shift to 1:1 in-room continuous observation. In the others, virtual monitoring was terminated upon discharge, transfer, or discontinuation of suicide precautions.

The researchers did report a number of incidents in at-risk patients who were not on the pilot protocol, but we consider any such comparison inappropriate because of the strict selection criteria.

The maximum number of patients receiving virtual monitoring for an indication of suicide precautions at a single time was 3 but the average daily census for the MT's was 6.2 patients (they were also apparently performing virtual monitoring for other indications on all hospital and ED units).

The authors conclude their pilot demonstrates that virtual monitoring can feasibly be used to monitor suicide risk in patients who are carefully screened for impulsivity.

Because general hospitals are bound to deal with patients at risk for suicide or self-harm regardless of whether they have a behavioral health unit, it is incumbent upon such hospitals to plan for safe care of such patients when they are in the ED or non-behavioral health inpatient units.

Our February 2, 2021 Patient Safety Tip of the Week "MGH Protocols Reduce Risk of Self-Harm in ED" described a program the Massachusetts General Hospital put in place to reduce self-harm in ED patients (Donovan 2021). You should go to that column for details.

In addition to adequately training any personnel you might use as "sitters" or "observers" for at-risk patients, there are a number of other important considerations for all such hospitals. We recommend that such hospitals might dedicate one or more rooms specifically for such patients. That means they should meet all the requirements in the the **VA Mental Health Environment of Care Checklist** (MHEOCC), which looks at issues such as loopable fixtures. You might even consider installing in those rooms windows that are resistant to patient attempts to jump from them.

Particular attention needs to be paid to use of bathroom facilities (see our August 29, 2017 Patient Safety Tip of the Week "Suicide in the Bathroom"). That means not only ensuring there are no loopable fixtures or other dangerous items in the bathrooms, but also ensuring that a reasonable balance be achieved between patient privacy and adequate monitoring/observation while the patient is in the bathroom.

Since these patients are usually not on a behavioral health unit because they have a medical or surgical condition, you must anticipate they may at some point require transport to other areas of the hospital, such as the radiology suite or the OR. Such transports can be very vulnerable periods. Patients may abscond during transports or they might go into a bathroom (or other room) that has features which could be used for suicide or self-harm. Therefore, it is essential that your "**Ticket to Ride**" intrahospital transport checklist include some provision for suicide or elopement risk and all staff accompanying the patient during the transport (as well as those who might take responsibility for the patient in the destination site) are adequately trained to deal with such patients.

The Kroll study suggests that there may well be a low-risk group of patients for whom continuous virtual monitoring may be useful, safe, and cost-effective. But you need to have strict patient selection criteria for such programs. You also need to have in place a more comprehensive program to deal with patients at higher risk for suicide, self-harm, jumping, or elopement.

Some of our prior columns on preventing hospital suicides:

- January 6, 2009 "Preventing Inpatient Suicides"
- February 9, 2010 "More on Preventing Inpatient Suicides"
- March 16, 2010 "A Patient Safety Scavenger Hunt"
- December 2010 "Joint Commission Sentinel Event Alert on Suicide Risk Outside Psych Units"
- September 27, 2011 "The Canadian Suicide Risk Assessment Guide"

- December 2011 "Columbia Suicide Severity Rating Scale"
- July 2012 "VA Checklist Reduces Suicide Risk"
- August 2013 "Suicide Attempts on Med/Surg Units"
- August 25, 2015 "Checklist for Intrahospital Transport"
- October 6, 2015 "Suicide and Other Violent Inpatient Deaths"
- March 2016 "TJC Sentinel Event Alert on Preventing Suicide"
- April 12, 2016 "Falls from Hospital Windows"
- February 14, 2017 "Yet More Jumps from Hospital Windows"
- August 29, 2017 "Suicide in the Bathroom"
- December 12, 2017 "Joint Commission on Suicide Prevention"
- July 10, 2018 "Another Jump from a Hospital Window"
- September 18, 2018 "More on Hospital Suicides"
- January 22, 2019 "Wandering Patients"
- January 29, 2019 "National Patient Safety Goal for Suicide Prevention"
- July 30, 2019 "Lessons from Hospital Suicide Attempts"
- September 3, 2019 "Lessons from an Inpatient Suicide"
- August 11, 2020 "Above-Door Alarms to Prevent Suicides"
- September 22, 2020 "VA RCA's: Suicide Risks Vary by Site"
- February 2, 2021 "MGH Protocols Reduce Risk of Self-Harm in ED"

Some of our past columns on DVT risk in behavioral health settings:

- October 2010 "Antipsychotic Drugs and Venous Thrombembolism"
- May 10, 2016 "Medical Problems in Behavioral Heatlth"
- February 6, 2018 "Adverse Events in Inpatient Psychiatry"
- February 2020 "DVT and Behavioral Health"

Some of our past columns on issues related to behavioral health:

- January 6, 2009 "Preventing Inpatient Suicides"
- September 22, 2009 "Psychotropic Drugs and Falls in the SNF"
- February 9, 2010 "More on Preventing Inpatient Suicides"
- March 16, 2010 "A Patient Safety Scavenger Hunt"
- October 2010 "Antipsychotic Drugs and Venous Thrombembolism"
- December 2010 "Joint Commission Sentinel Event Alert on Suicide Risk Outside Psych Units"
- September 27, 2011 "The Canadian Suicide Risk Assessment Guide"
- December 2011 "Columbia Suicide Severity Rating Scale"
- July 2012 "VA Checklist Reduces Suicide Risk"
- August 2013 "Suicide Attempts on Med/Surg Units"
- January 15, 2013 "Falls on Inpatient Psychiatry"
- April 2, 2013 "Absconding from Behavioral Health Services"
- August 25, 2015 "Checklist for Intrahospital Transport"

- October 6, 2015 "Suicide and Other Violent Inpatient Deaths"
- March 2016 "TJC Sentinel Event Alert on Preventing Suicide"
- April 12, 2016 "Falls from Hospital Windows"
- May 10, 2016 "Medical Problems in Behavioral Heatlth"
- February 14, 2017 "Yet More Jumps from Hospital Windows"
- March 14, 2017 "More on Falls on Inpatient Psychiatry"
- August 29, 2017 "Suicide in the Bathroom"
- December 12, 2017 "Joint Commission on Suicide Prevention"
- February 6, 2018 "Adverse Events in Inpatient Psychiatry"
- July 10, 2018 "Another Jump from a Hospital Window"
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- January 22, 2019 "Wandering Patients"
- January 29, 2019 "National Patient Safety Goal for Suicide Prevention"
- July 30, 2019 "Lessons from Hospital Suicide Attempts"
- September 3, 2019 "Lessons from an Inpatient Suicide"
- February 2020 "DVT and Behavioral Health"
- March 2020 "Risk Factor for Preventable Harm: Psychiatric Diagnosis"
- August 11, 2020 "Above-Door Alarms to Prevent Suicides"
- September 22, 2020 "VA RCA's: Suicide Risks Vary by Site"
- February 2, 2021 "MGH Protocols Reduce Risk of Self-Harm in ED"

References:

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Mental Health Environment of Care Checklist (VA)
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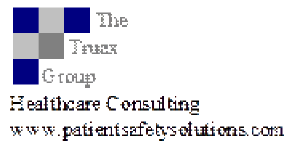

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