Reducing Violence on the Psychiatric Unit

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Purpose and PICOT Question

Purpose: Decrease episodes of violence at change of shift.

Question: In an adult psychiatric unit (5 East), does assessing behavioral activity and intervening as indicated by unit BARS protocol one hour prior to shift changes result in decreased episode of violence as evidenced by decreased code grays, pre-code grays, seclusion, and restraint episodes within the two hours following shift change?

Background

Change of shift is known to be an anxiety producing time for patients which can result in increased episodes of violence. Review of the literature conducted on violence reduction in psychiatric units described factors contributing to violence as: impulsivity/hostility, long hospital stay, involuntary status, aggressor and victim same gender, psychosis diagnosis and ETOH/drug abuse. Early identification and intervention, affirming staff interaction, use of staff handoff and behavioral assessment tools focusing on impending violence of escalating behaviors are shown to decreases injuries, seclusion, restraints and codes. The Behavioral Activity Rating Scale (BARS) has been utilized in the emergency room setting to assess agitation and predict violence with significant efficacy and reliability (p<0.001).

Baseline Assessment

Baseline data showed that 45% of pre-code grays and 55% of code grays occurred during the two hours following shift changes on 5 East, which are at 7am, 3pm, 7pm, and 11pm. (See bar graph). One would expect a distribution of approximately 33% for these time periods, as they represent 8 hours of each 24 hour period. Shift change is the busiest time on the unit, and the team felt that early intervention prior to shift change would result in decreased ratio of episodes of violence which occur at this time.

Intervention

Timing of the Behavioral Activity Rating Scale (BARS) protocol which has been used on 5 East since Nov 2012 was shifted to a standardized time of one hour prior to shift change. Intervention began on April 1 2016. Baseline data of code grays, pre-code grays, restraint, seclusion, and assault records for April 1 – May 13 2015 were compared to study period of April 1 – May 13 2016. These dates were chosen to factor out seasonal variation of patient population.

% of Events Within 2 Hours of Shift Change
(8 hours per day; expect 33%)

<table>
<thead>
<tr>
<th>Event Type</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-code gray</td>
<td>47</td>
<td>84</td>
</tr>
<tr>
<td>Code gray</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Assault</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Restraint</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Seclusion</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

Excludes one 2016 outlier with comorbid condition making treatment impossible who had 9 code grays, 3 assaults, 9 restraints, and 9 seclusions.

Results

In the two hours following each shift change: Pre-code grays dropped from 45% in 2015 to 27% in 2016; Code grays dropped from 55% to 32% and assaults dropped from 60% to 29%. While the time period of collecting data led to results that were not statistically significant due to the small number of events, this is a hopeful sign that continuing the intervention will result in improved long-term outcomes. The percentage of seclusion and restraint episodes increased following shift changes, though actual number of events decreased. As noted in the table, there was an outlier patient who had multiple codes, as well as restraint and seclusion events.

Conclusion and Next Steps

Assessing and intervening using the BARS at shift change shows potential for reducing violence in the psychiatric unit. This is consistent with the hypothesis formulated prior to starting the project.

Next step for the project is to examine data over a longer period of time to show statistical significance of using BARS interventions immediately prior to shift change.

References