Sensitivity and Specificity of the Edmonson Psychiatric Fall Risk Assessment Tool in an Adult Inpatient Psychiatric Unit

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Disclosure

✓ At the time the research was conducted, both Jordon Bosse, RN, MSN/ED and Constance LaPointe, RN-BC, PMHC were employed by St. Mary’s Regional Medical Center in Lewiston, ME

✓ Neither author has any conflict or perceived conflict of interest related to this research

✓ Neither author received any sponsorship or commercial support during the course of this research
Background

- Behavioral patients fall more often than medical patients (Allen et al., 2012)

- Different patient characteristics
  - Often younger (Tay et al., 2000)
  - Often alert (Yates & Tart, 2012)

- Unique risks
  - Med side effects (Tay et al., 2000)
  - Sleep disorders (Edmonson et al., 2011)
  - ECT (DeCarle & Kohn, 2000 & 2001)
  - Labile mental status (Allen et al., 2012)

- Repeat falls (Currie, 2008)
Purpose

- Sensitivity & Specificity
- Edmonson Psychiatric Fall Risk Assessment Tool (EPFRAT) vs. Johns Hopkins Fall Assessment Tool
- RN perception of usability
Phase I

Methods
- Retrospective review of 12 cases
- Completed JH and EPFRAT for each
- Two independent raters

Results
- 100% agreement on JH scores
- 83.3% agreement on EPFRAT scores
Phase II

Methods

- Retrospective review of all falls on adult behavioral unit (n=41)
- JH Score & EPFRAT score
- Matched cases
Results

Figure 1 Fall scores of patients who fell

<table>
<thead>
<tr>
<th>Group</th>
<th>Low EPFRAT</th>
<th>High EPFRAT</th>
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<tbody>
<tr>
<td>Low John's Hopkins</td>
<td></td>
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<tr>
<td>Moderate John's Hopkins</td>
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<tr>
<td>High John's Hopkins</td>
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- Low John's Hopkins: Low EPFRAT (~4), High EPFRAT (~6)
- Moderate John's Hopkins: Low EPFRAT (~6), High EPFRAT (~10)
- High John's Hopkins: Low EPFRAT (~8), High EPFRAT (~18)
Results

Figure 2- Fall scores of patients who did not fall

Low EPFRAT
High EPFRAT
Methods: Phase III

- Piloted for 1 month
- 4 RNs who volunteered
- Filled out EPFRAT on paper
- 161 EPFRAT completed
- Compared to JH score in chart for same shift
Figure 3 - Comparison of Fall Risk Identification for people who fell during pilot by tool

Results
Figure 4- Comparison of Fall Risk Identification by Assessment Tool for Non-Fallers

Edmonson (High Risk)
Edmonson (Low Risk)
## Sensitivity & Specificity

<table>
<thead>
<tr>
<th></th>
<th>EPFRAT</th>
<th>Johns Hopkins</th>
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<tbody>
<tr>
<td>Sensitivity</td>
<td>0.80</td>
<td>0.40</td>
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<tr>
<td>Specificity</td>
<td>0.96</td>
<td>0.76</td>
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</table>
Conclusions & Implications

- Different needs and fall risks by patient population
- EPFRAT more specific for psychiatric patients
- EPFRAT was user-friendly
- Still need to use EB Intervention
Limitations & Challenges

- Small sample at one hospital
- Varied understanding of what constitutes a fall
- Discrepancy in reporting (incident vs. in chart)
Next Steps

- Mandatory training
- Larger scale, prospective evaluation of EPFRAT by adult behavioral health nurses
- Ask staff nurses to complete both EPFRAT and JH fall assessments on every patient
Thank you!

Questions?