Recognition of Wrong Patient Errors in a Simulated Computerized Provider Order Entry System

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Disclosure

- None

Acknowledgements:
- Work began at University of Rochester
Background/Hypothesis

- Computerized provider order entry (CPOE) systems
  - Potential to improve patient care
  - Interface design & error rates
- The addition of contextual information to a CPOE interface improves provider recovery from “wrong-patient” errors for ED radiology orders
Methods

- 46 EM Providers
- Randomly assigned to three arms
  1) Standard
  2) Bolded
  3) Contextual Information
- Between-subjects design
  3 scenarios, 3rd introduced error
- Outcome measures in Simulated System
  1) Recovery from the error
  2) Time interval from start to recovery
  3) Step in the ordering process at which recognition occurred
24% Overall

Percent Recovery by Study Arm

- Regular: 13%
- Bold: 33%
- Contextual: 25%
9 of 11  
p = 0.03

Percent of All Recoveries

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<thead>
<tr>
<th>Category</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Summary</td>
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<td>Review</td>
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Conclusion

- 76% of providers did not recognize the occurrence of wrong-patient selection error
  - Recovery took place significantly more often in the data entry phase
- No significant impact from the addition of contextual information in this pilot study
- Further study is needed to determine the most effective intervention to reduce the wrong-patient selection errors
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