Assessment of Discharge Summary Completeness, Accuracy, and Relevance to Primary Care Physicians when Prepared by Internal Medicine Residents in PGY1

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Objectives

• Understand the importance of accurate discharge summaries in preventing adverse events

• Examine the completeness and accuracy of discharge summaries written by PGY1 residents and their relevance to primary care physicians

• Discuss the development of an educational intervention to improve discharge summaries
Background

- Patients are susceptible to medical error during transition from inpatient to outpatient care\(^1\)
  - Complete and accurate discharge summary prevents adverse events and readmissions\(^2,3\)
  - Few studies address accuracy of discharge summaries and relevance to primary care physicians
  - PGY-1’s responsible for dictating many discharge summaries
  - Little teaching on how to produce effective discharge summaries in many undergraduate and postgraduate training programs
  - Many programs do not evaluate the quality and accuracy of discharge summaries

Goals of Study

- To evaluate discharge summaries produced by PGY1 residents for completeness, accuracy, and relevance to primary care physicians

- To inform the design of an educational intervention for incoming internal medicine residents
Methods: Part 1

- 90 discharge summaries dictated by McMaster PGY1s during first 2 months of CTU for accuracy
- 30 from each CTU
- Compared to inpatient medical record
- Case report form developed using the essential domains described by the Joint Commission for Hospital Accreditation
- 2 independent reviewers
Methods: Part 2

• Primary care physicians completed survey regarding discharge summaries of their own patients
• Rated adequacy of the items on Likert scales
• 21 primary care physicians
• 68 discharge summaries
## Results

Frequency of missing information in discharge summaries

<table>
<thead>
<tr>
<th></th>
<th>Missing n/N*</th>
<th>% (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge diagnosis</td>
<td>1/90</td>
<td>1.1 (0.0-6.6)</td>
</tr>
<tr>
<td>Discharge medication list</td>
<td>5/89</td>
<td>5.6 (2.1-12.8)</td>
</tr>
<tr>
<td>Medication change(s)</td>
<td>4/82</td>
<td>4.9 (1.5-12.3)</td>
</tr>
<tr>
<td>Reason for medication change(s)</td>
<td>13/82</td>
<td>15.9 (9.5-25.4)</td>
</tr>
<tr>
<td>Clinical course in hospital</td>
<td>0/90</td>
<td>0.0 (0.0-4.9)</td>
</tr>
<tr>
<td>Result of relevant investigations</td>
<td>3/90</td>
<td>3.3 (0.7-9.8)</td>
</tr>
</tbody>
</table>
Results

Frequency of inaccurate information in discharge summaries

Kappa 0.73
Results

Time elapsed between discharge and dictation of discharge summary

- < 48 hours after discharge (70%)
- > 48 hours after discharge (30%)
Results

Primary care physicians’ assessment of discharge summaries

- Information regarding most responsible diagnosis
- Information regarding in hospital
- Follow-up plan for medications
- Follow-up plan for further investigations
- Follow-up plan with consulting physicians
- Length of discharge summary

Percentage of discharge summaries
Swiss Cheese Model

1. Discharge summary dictated by resident
2. Attending physician signs off on discharge summary
3. Primary care physician reads discharge summary
Conclusions

- Identifies information gaps
  - Discharge medication list
  - Medication changes
  - Reason for medication changes
  - Follow-up plans

- An educational intervention instituted early in the PGY1 year could help improve the accuracy and completeness of discharge summaries
Limitations

- Retrospective study
- Inpatient medical record used to assess accuracy – may have contained inaccuracies
- Limited to PGY1 residents - ?generalizability
- Investigators were not blinded to name of resident dictating discharge summary
Planned Intervention

- Highlight the importance of good communication, focusing on written communication
- Focus on the importance of accuracy, not just style
- Didactic information session outlining key components of a discharge summary
- Small group sessions involving review of desirable and undesirable discharge summaries
- Periodic evaluation of discharge summaries by attending physicians
Summary

• Understand the importance of accurate discharge summaries in preventing adverse events

• Examine the completeness and accuracy of discharge summaries written by PGY1 residents and their relevance to primary care physicians

• Discuss the development of an educational intervention to improve discharge summaries
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