Quality Improvement of Mount Sinai Discharge Summaries

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The Issue

There is room to improve the quality of general surgery discharge summaries at Mount Sinai Hospital

Why it’s important...

- Facilitate better communication between the General Surgery Service and family physicians
- Improve efficiency of dictating discharge summaries
- Provide a framework for a thorough discharge summary that can be used by other members of the medical team (e.g. medical students, NPs)
- Thorough documentation in the patient’s chart for medico-legal purposes
Aim Statement

By May 2017, we aim to reduce the amount of missing information in each general surgery discharge summary at Mount Sinai Hospital by 50%, by implementing a general surgery specific discharge summary template for residents to use.
Methods

We created a standardized discharge summary grading scheme

Developed a general surgery discharge template

Pre-intervention
Collect Discharge summaries
n=15

Implementation of Discharge summary Template

Post-intervention
Collect Discharge summaries
n=15
An Australian discharge summary quality assessment tool: A pilot study

Carl Mathieu, Andrew Stoney, Judy Mullan, Warren Rich

Background and objective

Patients’ transition from hospital care to their general practitioner (GP) can put them at risk of unforeseen adverse events, which can be minimised by the GP receiving timely access to hospital discharge summaries. The objective of this article was to develop and pilot a discharge summary assessment tool, inclusive of components that Australian GPs identified as being most important for the safe transfer of care.

Method

Development of the instrument was informed by a literature review pertaining to key components of effective discharge summaries. These components were included in a survey instrument, which was piloted by Australian GP participants.

Results

From 118 responses, the five highest ranked components of a discharge summary included lists of medications on discharge, diagnosis on discharge, reasons for any changes to medications, and details of follow-up arrangements and treatment in hospital.

Discussion

This paper describes the initial development and results of piloting an Australian discharge summary quality assessment tool.

Research indicates that a patient’s transition from hospital care to the care of their general practitioner (GP) carries significant risk of unforeseen adverse effects, including emergency department re-admissions, disability and even death. It has been reported that almost half (49%) of the patients discharged from hospital experienced at least one adverse event in their continuing care because of incorrect information contained in their hospital discharge summary. Therefore, high-quality hospital discharge communication is essential in helping reduce adverse discharge-related events. Also, from a hospital-based perspective, effective discharge summaries, which enable effective clinical handover, are required for accreditation under the Australian National Safety and Quality Service Standards (Standards). These Standards, derived from Australian and international research, set out to establish a consistent set of evidenced-based processes to be used across healthcare services. Australian hospital discharge documents based on the eDischarge summary are similar to those reported in international literature in regards to providing the information considered to be essential for successful continuity of care.

International and Australian studies concerning discharge summaries have addressed:

- GP satisfaction with the quality and timeliness of electronic discharge summaries
- audits of the accuracy of, and GP satisfaction with, medications outlined on discharge summaries
- ranking discharge information options by GPs in order of importance
- validation of a scale to measure the quality of hospital discharge summaries for older patients from a GP perspective
- examination of the reliability, effectiveness, accuracy and timeliness of information transfer from the hospital to the GP

Furthermore, Middleton et al investigated patients’ knowledge of their hospitalisation and perceived readiness to leave in comparison with GPs’ attitudes towards the usefulness of discharge communications. A consistent theme in the literature has been the significant scope for improvement in the quality of discharge-related communication.

We are only aware of one Australian study undertaken to identify and rank what GPs believed were the essential elements required in a discharge summary to enable successful post-hospital continuity of care. That study was conducted in a single, Western Australian metropolitan location and concerned patients who had undergone total hip or knee replacement.

We are aware of extensive research concerning perceptions of adequate discharge planning in Australia and the US. However, there remains a pressing need for research to directly inform improvements in the discharge summary instrument itself. Therefore, the aim of this
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family physician identified on d/c summary</td>
<td>1</td>
</tr>
<tr>
<td>Reason for admission or presentation to hospital</td>
<td>1</td>
</tr>
<tr>
<td>Results of diagnostic tests done in hospital</td>
<td>1</td>
</tr>
<tr>
<td>Treatment/Procedures in hospital</td>
<td>1</td>
</tr>
<tr>
<td>Progress during hospital admission</td>
<td>1</td>
</tr>
<tr>
<td>Complications during hospital stay</td>
<td>1</td>
</tr>
<tr>
<td>List of medications on discharge</td>
<td>1</td>
</tr>
<tr>
<td>Reasons for any changes in medications</td>
<td>1</td>
</tr>
<tr>
<td>List of diagnoses on discharge</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory/pathology results to follow up on</td>
<td>1</td>
</tr>
<tr>
<td>Patient condition or functional status on discharge</td>
<td>1</td>
</tr>
<tr>
<td>Details of follow up arrangements</td>
<td>1</td>
</tr>
<tr>
<td>Information given to patient and family</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>
Discharge Summary Template

This is Dr. [Your Name] dictating the discharge summary for patient [NAME], [MRN #] on behalf of Dr. [Attending]. Please send copies to Dr. [Attending], to the chart and to the patient’s primary care provider, Dr. [Family Doctor, found on patient face sheet/powerchart].

Admission date:
Discharge date:
Reason for admission:
Discharge Diagnosis:

Past Medical History:
Past Surgical History:
Home Medications:
Allergies: Include type of reaction, if known

Procedures performed during hospitalization: (Include ORs and date, significant procedures including IR procedures and associated complications if any)

Presenting complaint:
If presenting through the ED
Mr/Ms. [Name] is a [age] year old [male/female] who presented to Mount Sinai Hospital on [date] with [list main presenting symptoms]. Initial investigations in the Emergency department revealed [pertinent bloodwork] and imaging showed [summary of imaging findings].

The General Surgery team was consulted for further assessment. On exam, [important physical findings]. The patient was therefore admitted to the service under team [Aqua/Red/Orange/Blue] for further management.

If presenting for elective surgery
Mr./Ms.__________ is a _______ [age] year old _______ [male/female] who presented to Mount Sinai Hospital on ___________ [date] for _________ [name of elective surgery]. He/She was diagnosed with __________ [diagnosis] in _________ [month, year] and it was decided that he/she would benefit from surgical intervention. [Include pertinent treatment prior to surgery including chemo/radiation/prior surgery].

Course in Hospital
During Mr./Mrs.__________ stay in hospital
(discuss significant OR, interventions or treatments)

Major complications (if applicable, otherwise state there were no complications during this admission)
1. Line infections treated with ________ x _____ days
2. Hospital acquire pneumonia treated with ________ x ___ days
3. UTI treated with ________ x ___ days
4. Wound complications
5. High output stoma managed with _________ until outputs were under 1L.
6. 

On the day of discharge, Mr./Ms.__________ was doing well, tolerating a ______ [regular/modified] diet with no nausea or vomiting and ambulating as per his/her baseline. His/her pain was well controlled with oral analgesics. He/she was hemodynamically normal, bloodwork was within normal limits and abdominal exam was benign. Incisions were clean, dry and intact with no evidence of infection.

He/she was therefore discharged ________ [home/rehab/complex continuing care/to another facility/etc..] on __________ [date].
Indications to return to care were discussed with the patient including ____ (fever, nausea/vomiting, worsening abdominal pain, wound or skin changes, jaundice). Questions and concerns may be addressed by calling Dr._______’s office.

**Discharge Medications**

**Discharge Instructions:**

**DIET:** You may resume your normal diet unless otherwise instructed.

**EXERCISE:** Avoid heavy lifting for the next 4 weeks. Light aerobic exercise (walking, jogging) is encouraged within the limits of your pain tolerance. Gradually resume normal physical activities as tolerated.

**INCISION CARE:**
1. You may shower 48 hours after surgery. Cleanse incision with mild soap and water and let the water flow over the incision. Thoroughly pat dry. Avoid soaking incision for the next 2 to weeks.
2. You may see a small amount of clear, light red, or straw coloured fluid staining your dressing or clothes from your incisions, which is normal. However, please call your surgeon's office or go to the Emergency Department if you develop the following: staining is severe, thick, foul smelling or cloudy drainage, new spreading redness or worsening discomfort near the incision. These are signs of wound infection.
3. If Steri-strip tapes were placed on your incision will flake and fall off on their own. If not, you may remove them 7 to 10 days after surgery.

**MEDICATIONS:**
1. Please resume your home medications unless otherwise instructed.
2. Do not drive while you are taking any prescription pain killers.

**ADDITIONAL CAUTIONS:**
1. Please call the office or return to the Emergency Department if you develop the following symptoms: fevers, persistent nausea or vomiting, difficulty breathing, severe chest pain or worsening abdominal pain not relieved by pain medication, persistent diarrhea, or any other medical symptoms you are concerned with.

**Follow Up Appointments:**
1. Follow up with Dr.______ in ______ weeks
2. Follow up with Family Doctor in ______ for ______ (staple removal/medication revision/post-operative check-up)
3. CCAC arranged for ______ (wound care/feeds/staple removal/drain care/ect...)
4. (any lab test or pathology report that needs to be followed up on)
Intervention

Emailed the discharge template to residents on the General Surgery service at Mount Sinai

Introduced the template in-person at rounds

Posted template in the on-call room
## Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention (n=15)</th>
<th>Post-Intervention (n=15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family physician identified</td>
<td>40%</td>
<td>47%</td>
</tr>
<tr>
<td>Reason for admission or presentation to hospital</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Result of diagnostic tests done in hospital</td>
<td>66%</td>
<td>88%</td>
</tr>
<tr>
<td>Treatment/Procedures in hospital</td>
<td>93%</td>
<td>100%</td>
</tr>
<tr>
<td>Progress during admission</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>Complications during hospital stay</td>
<td>53%</td>
<td>88%</td>
</tr>
<tr>
<td>List of medications on discharge</td>
<td>0%</td>
<td>23%</td>
</tr>
<tr>
<td>Reasons for any changes in medications</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>List of diagnoses on discharge</td>
<td>13%</td>
<td>41%</td>
</tr>
<tr>
<td>Laboratory/pathology results to follow up on</td>
<td>13%</td>
<td>18%</td>
</tr>
<tr>
<td>Patient condition/functional status on discharge</td>
<td>26%</td>
<td>88%</td>
</tr>
<tr>
<td>Details of follow up arrangements</td>
<td>73%</td>
<td>88%</td>
</tr>
<tr>
<td>Information given to patient and family</td>
<td>33%</td>
<td>71%</td>
</tr>
</tbody>
</table>
We saw a 28% reduction in missing information after implementation of the discharge summary template.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention (n=15)</th>
<th>Post-Intervention (n=15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D/C Summary Grade Average Score</td>
<td>6/13</td>
<td>8/13</td>
</tr>
</tbody>
</table>
Limitations

Resident awareness
Resident turnover
Short time frame
Future Directions

Include discharge summary template in Mount Sinai General Surgery orientation package
Post on University of Toronto General Surgery resource website
Already being used at other sites (St. Joe’s)
Conclusion

The introduction of a General Surgery discharge template at Mount Sinai Hospital has shown promising results for improving the amount of important information on general surgery discharge summaries.
Questions?