Project Title

Inpatient discharge summary redesign: Seeing the admission through the primary team's eyes

Project Lead and Members

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Project Members: Desmond Teo, Amelia Santosa, Colin Chan, Chong Wei Ting, Bhuvaneshwari Mohankumar

Organisation(s) Involved

National University Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Healthcare Administration

Applicable Specialty or Discipline

Department of Medicine, Department of Medical Affairs (Clinical Governance)

Aim(s)

To improve discharge summary which translates to better continuation of care

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Discharge Summary (DS) is an integral part of patient care and formal training is important to ensure its quality. A multi-pronged approach is needed for directed self-learning and experiential learning through interactive session with personalised feedback on the job. Engagement of seniors in supervising the junior doctors is not only important for the juniors doctors' continued learning, but also to grow the overall culture of recognizing the importance of a good DS. To ensure sustainability of writing a complete DS, we are currently working on systematising templates into our electronic medical system (EPIC) for common clinical conditions and to encourage our juniors to use them. An easier workflow for DS routing to seniors through IT enhancements would allow more consistent vetting of DS..

Conclusion

See poster appended/ below

Additional Information

Conducting a quality improvement project took effort and time. But building a culture from junior to senior rank within the division takes commitment and belief in a common cause.

Structured training, building awareness and audits were our key interventions to improve DS quality. Subspecialty involvement and senior engagement is our next phase to embed the culture of good DS in our day-to-day work.

This project would have far-reaching benefits with improved transition of care for patients, increased subvention and efficiency for hospital and it improves coding for national population study and healthcare planning.

Project Category

Care & Process Redesign

Quality Improvement, Job Effectiveness

Training & Education

Learning Approach, Inter-Professional Education

Keywords

Inpatient Discharge Summary Redesign

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Inpatient discharge summary redesign: Seeing the admission through the primary team's eyes

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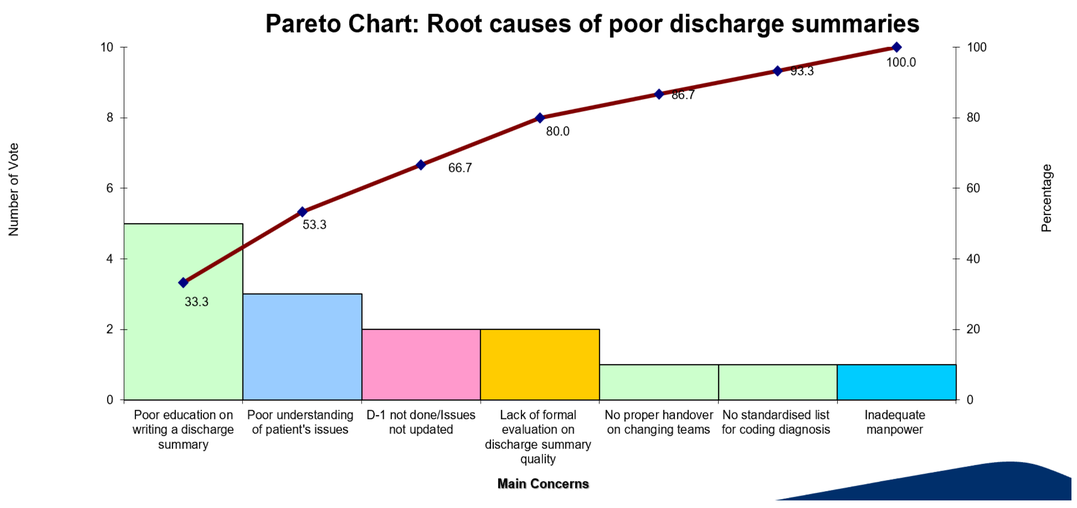
PROJECT OVERVIEW

Discharge summary (DS) plays a crucial role in the continuation of care, preventing adverse events and readmissions. However, there is little formal teaching and many hospitals do not assess the quality of DS. Structured training on DS writing can improve its quality. Hence, it is a key step towards improving care transition and also translates into better clinical coding for hospital subvention.

Based on the Royal College of Physician DCS audit tool, a good DS adapted to the local context should include diagnosis at discharge, operations and procedures, clinical narrative and relevant investigations and treatment, and changes made to treatment. 100 DS were audited in the week of 11-17 January 2021, with percentage weighted against the volume of discharges by the subspecialty within Department of Medicine (DoM), National University Hospital (NUH) (breakdown from each subspecialty: Endocrine 2, Gastroenterology 10, General Medicine 38, Geriatric Medicine 6, Infectious disease 3, Nephrology 14, Neurology Stroke 13, Neurology General 5, RCCM 7, Rheumatology 2). Only 21% of the audited DS are complete.

PROBLEM ANALYSIS AND INTERVENTIONS

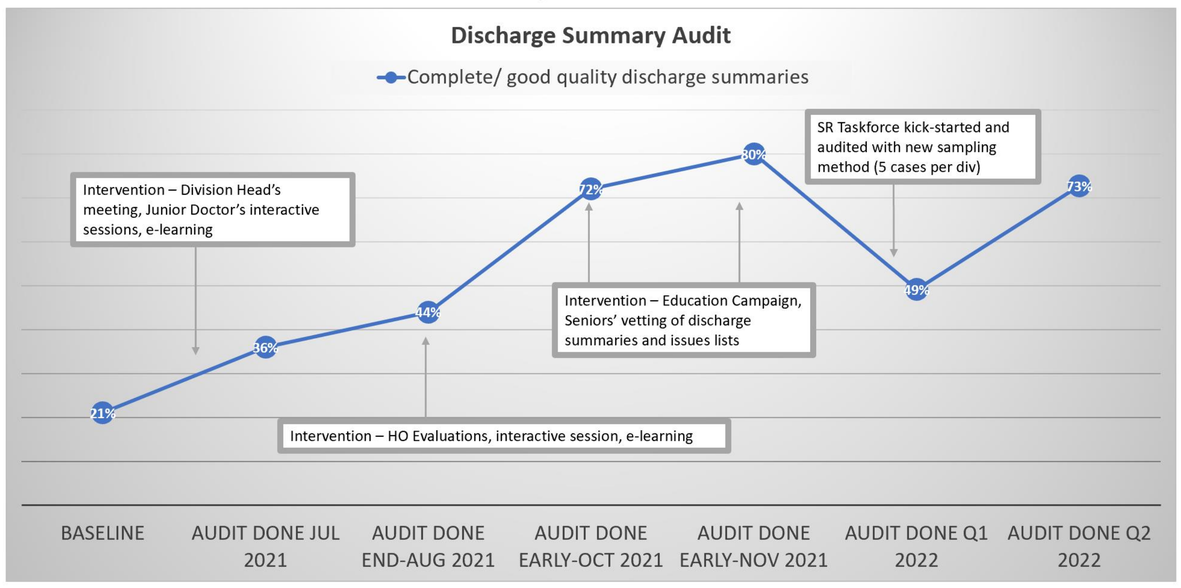


Root causes were identified by our focus group consisting of the stakeholders in DS writing such as consultant, senior residents and junior doctors. Interventions were formulated to target the top 4 root causes identified.

ROOT CAUSES	INTERVENTION
Poor education on writing a good discharge summary	**1. Interactive teaching at HO/Resident's orientation** **2. Compulsory educational video on E-learning platform for all HO/MO/Residents for each academic year** 3. Education Campaigns - Reminders on all computer screensavers, weekly emails/HMS on the important things to include in discharge summaries **4. To encourage residents to follow our Instagram page on important pointers for discharge summary**
Poor understanding of patient's issues	1. All discharge summaries to be vetted by Seniors to give personalised feedback so that juniors can make changes to their discharge summaries 2. Ward consultants should consider junior's quality of discharge summary as part of monthly evaluation 3. Presentation at DoM meeting to encourage seniors to vet discharge summaries
Lack of formal evaluation of discharge summaries	**1. HO's monthly discharge summary evaluation by ward consultant on new innovation** 2. To encourage seniors to evaluate resident's discharge summaries on new innovation to test clinical reasoning of patient's issues
D-1/Issues not updated	1. Education Campaigns - Reminders on all computer screensavers, weekly emails/HMS on the important things to include in discharge summaries

A compulsory DS e-learning module on its importance is required for all junior doctors (residents and PGY1s) and Year 5 medical students (SIPs) posted to DoM, NUH. PGY1s and SIPs also attended virtual teaching sessions (Zoom) to discuss commonly encountered clinical cases in view of their lack of clinical experience compared to the residents. In small groups, clinical summaries were formulated with direct feedback from facilitators. A 6-week education campaign, including work computers' screensavers, email and SMS reminders to every junior, was carried out to reinforce common pitfalls. Seniors are also encouraged to vet through their DS. PGY1s would also be assessed every month and provided with individualised feedback on the quality of their DS. With the transition of the electronic healthcare records from CPSS to EPIC in February 2022, our team had also utilised smart text function to disseminate DS templates for commonly encountered clinical conditions to our junior doctors. For the sustainability of this effort, we had set up a taskforce consisting of associate consultants and senior residents from each division in DoM to conduct quarterly audit within their divisions and promote the culture of good quality DS in DoM.

MEASUREMENT OF IMPROVEMENT



The audit from July 2021 to November 2021 were sampled from 25 DS from all divisions in DoM, weighted against their volume of discharges. Subsequently, taskforce for quality DS took over the audit and they were stipulated to audit 5 cases per division (with 55 cases for each audit) in Q1 and Q2 2022. The audits were sampled in Q1 and Q2 to ensure the consistencies in scoring for good quality DS amongst the various division champions.

From the graph, there was a steep increase in quality of DS from 21% to 80% after implementation of our interactive sessions to teach junior doctors and Year 5 medical students on DS writing with reinforcement by our education campaigns including reminders to avoid common pitfalls in DS writing. However, we could see a dip in good quality DS to 49% in Q1 of 2022 after 6 months of intense promotion. To ensure the sustainability of our efforts, we introduced a taskforce to do regular audits and promote the culture of good DS in each division. As such, the number of vetted DS by seniors increased from 27% at baseline to a record high of 50% by Q2 2022. This coincided with an increase of good quality DS from 49% to 73%. We recognise that the interactive sessions and education campaign may not have sustained impact as the enthusiasm may wear off after a period of promotion. Nevertheless, ensuring a good quality DS is a concerted effort which should be led by seniors, such as consultants and senior residents, who can guide juniors to understand their patients better and hence, they will be able to write a complete DS.

In our education campaign, we also encouraged juniors to prepare their DS early for all planned discharges to ensure the quality of their writing and not to delay discharges. An indirect impact of this is that many wards also showed 4-5% increase in the number of discharges before noon from July 2021 to September 2021.

LESSONS LEARNT AND FUTURE EFFORT

DS is an integral part of patient care and formal training is important to ensure its quality. A multi-pronged approach is needed for directed self-learning and experiential learning through interactive session with personalised feedback on the job. However, engagement of seniors in supervising the junior doctors is a problem. As there is high inertia for the seniors to vet the discharge summaries, we could develop a more efficient system EPIC for easier vetting. Other possible future efforts include

- an electronic learning module and word recognition software in teaching and application
- spread DS education and implementation effort within the hospital to involve all the departments including surgical specialties
- collect feedback from our primary care colleagues and to expand this effort into memo writing

It is a concerted effort from the whole medical team including involving the seniors to guide juniors on writing a good DS. This project would have far-reaching benefits with improved transition of care for patients, increased subvention and efficiency for hospital and it improves coding for national population study and healthcare planning.

More often than not, we have to rely on DS in National Electronic Health Records to understand about the patient's medical information and the course of hospitalisation in the primary care or another hospital setting. To date, this is the first initiative to improve patient's care through documentation and the established methodology can be further improvised and spread to other hospitals and clusters outside of NUH.