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Intensive care discharges: improving the quality of clinical handover through changes to discharge documentation

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Abstract

Patients who have stepped down from intensive care tread a precarious clinical course, and the handover of care between clinical teams at this point should be treated as a high risk event. Poor handover can leave patients vulnerable to suboptimal care and preventable harm. Properly structured written discharge summaries have been shown to improve information transfer and quality of care. The National Institute for Health and Care Excellence (NICE) has published guidelines entitled "Acute illness in adults in hospital: recognising and responding to deterioration," which states that patients transferred from intensive care should have a formal structured handover supported by a written plan, and it provides minimum criteria for what information should be included. A retrospective audit was carried out (n=28) to identify if discharge summaries were compliant with these standards. Discharge summaries consistently lacked essential criteria, including psychosocial needs (29%), nutritional needs (50%), therapy needs (29%), ceilings of care (39%), and communication needs (18%). Less than a third of verbal handovers between the nursing and medical teams were documented. After consultation, a new summary template was developed and embedded into practice. The new design prompted trainees to ensure they completed adequate information in all domains of care. Additional sections were added to improve recording of when, and to whom, clinical handover took place, which led to improved clinical governance. The overall quality of discharge summaries was improved, with increased compliance in 11 out of 13 domains. Feedback from staff about the new discharge summaries was positive. This project is easily transferable, and has the potential to improve patient safety and quality of care.

Problem

In 2007, The National Institute for Health and Care Excellence (NICE) published guidelines entitled "Acute illness in adults in hospital: recognising and responding to deterioration,"[1] which advised on how the care of acutely ill patients in hospital could be improved. This included establishing standards of care regarding the transfer of patients from critical care areas to wards, and was outlined in section 1.15. Specifically, it states what information should be included in a formal structured handover of care between intensive care and ward teams. Intensive care and ward teams at Hillingdon Hospital felt intensive care discharge summaries lacked some crucial information. It was recognised that this represented a weakness in the handover process of critically unwell patients, and an audit was devised.

Background

Patients who have stepped down from intensive care tread a precarious clinical course, and the handover of care between clinical teams at this point should be treated as a high risk event. Poor handover can leave patients vulnerable to suboptimal care and preventable harm.[2] Systems, organisational culture, and individual factors have been recognised to impact on the transfer of information between clinical teams, and the challenge of improving the handover process reflects this complexity.[3] Written handover forms have a role in improving transfer of information in the face of this complexity, and can reduce adverse incidents and improve continuity of care.[1] However, such discharge summaries must balance providing too little data and affecting continuity of care, or too much data, which could hinder efficient extraction of the most relevant information for patient care. NICE provides guidance in this regard, and it becomes clear that discharge summaries should be more than an overview of medical care received; rather, they must acknowledge all aspects of a patient's care, and provide plans for the future.

Baseline measurement

Baseline data was collected retrospectively from intensive care unit discharges from the previous month (n=28). Discharge summaries are typed into a template and then saved electronically, with a paper copy placed in the patient's notes. The electronic discharge summaries were accessed, and the patient's written notes were also reviewed on the ward, to ensure the summary was present. The summaries were reviewed against standards taken from NICE guidelines on acutely ill patients in hospital.[1] Specifically, section 1.15 regarding the handover of intensive care patients to ward teams includes the domains outlined below. Compliance was assessed in each domain:

- Summary of critical care stay, including diagnosis and treatment: 97%

- A monitoring and investigation plan: 86%

- A plan for ongoing treatment, including:

- (a) Drugs: 96%

- (b) Nutrition plan: 50%

- (c) Infection status and plan: 71%

- (d) Limitations of treatment: 39%

- Rehabilitation and therapy needs: 29%

- Psychological and emotional needs: 29%

- Specific communication or language needs: 18%.

The NICE guidance also states there must be a formalised structured handover from critical care staff to ward staff. Medical and nursing staff reported that verbal handovers took place between critical care and ward teams, therefore we audited whether verbal handovers were being documented:

- Documented verbal handover between nursing teams: 29%

- Documented verbal handover between medical teams: 29%.

In addition to the NICE guidelines, it was deemed important to audit further specific criteria. Paper copies are the only method for ward doctors to access the discharge letter, so it was important to ensure the process of transferring the electronic summary to the paper notes on discharge was taking place. This was audited at ward level:

- Presence of discharge summary in patient's notes: 93%.

It was deemed locally important that all intensive care discharges were discussed between the discharging and receiving consultant. A documented record of this discussion was audited:

- Documented consultant to consultant handover: 89%.

In summary, the audit demonstrated there were areas of good practice, particularly regarding the summary of the intensive care stay, investigation, monitoring, and medication plans. Other important aspects were inconsistently documented, in particular the psychosocial, nutritional, therapy needs, and ceilings of care. Furthermore, there was a lack of clarity regarding when, and to whom, verbal handover of patient care had taken place, for both medical and nursing teams. In fact, there was no specific place to record that a verbal handover had taken place.

See supplementary file: ds6195.pdf - “Graph of baseline measurements”

Design

As described above, specific weaknesses were identified in intensive care discharge summaries produced at the point of step down to the ward. A comprehensive review of the discharge summary template was therefore planned. The multidisciplinary team was consulted, including the junior doctors who were primarily responsible for writing the discharge summaries. It was considered that to encourage inclusion of some missing components, the addition of a series of prompts would make it less likely that relevant information would be omitted. A checklist format for identifying patient needs and specific health plans was included. The discharge letter was also amended to include the details of when, and to whom, verbal handover had taken place. Providing an allocated section for this documentation was deemed important for continuity of care and clinical governance. This included medical and nursing verbal handovers, which was an important step in amalgamating the two handover events.

Strategy

PDSA cycle one: The results of the audit were presented to the critical care departmental meeting, which consisted of trainees, consultants, and senior nurses. There was active discussion regarding the importance of clinical handovers, and it was highlighted that ward teams found the summaries useful when caring for recently discharged patients. There was consensus that discharge summaries should be more than a summary of medical care, and that it was important to hand over aspects of care such as therapy needs, nutritional care, and psychosocial support. Several intensive care consultants raised concerns regarding the handover of ceilings of care decisions, as they felt the receiving consultant should be involved in these decisions. It was decided the discharge summary should include a précis of discussions and decisions made during the intensive care admission, as a useful starting point for ward teams’ approaches to ceilings of care. This would also be an easily available summary to reduce time spent looking through notes, particularly out of hours, for previous discussions. Intensive care junior doctors were consulted about their views on changing the template, to encourage inclusion of lacking data. This was done during teaching sessions, when all involved colleagues were together at the same time. Junior doctors from ward teams were also approached before the morning medical handover, and asked about their views on the proposed new discharge letters. Specifically, they were asked if it would impact the care they delivered. All of those involved felt it was an important issue, and were confident that the proposed changes could have a positive impact. Changes to the discharge summary were drafted as a result of reflecting on discussions at both the departmental meeting, and subsequent additional consultation.

PDSA cycle two: The new discharge summary template was reviewed firstly by the senior intensive care consultants, who provided us with positive feedback and approved the template in principle. It was then distributed to the intensive care and ward teams to give their thoughts. We found that emailing other staff had poor levels of response, and in fact we gathered more feedback through informal discussions on an ad hoc basis. Overall the feedback was that the template was more thorough, and an improvement on the old style. Specifically, they informed us that they approved of the "ceilings of care" section. However, they stated it could be worded differently, and could also state the presence of a "do not attempt resuscitation" order. These modifications were made, and the new template was finally approved by the intensive care lead consultant. It was implemented in advance of a cohort of new trainees rotating through the intensive care unit. Their induction included instructions on completing the new discharge summary template. Data regarding compliance of

the summaries with NICE guidance [1] was then collected prospectively on each discharge.

Results

Data from intensive care discharges were collected prospectively for a two month period (n=40). The electronic discharge summaries were accessed, and the patient's written notes were also reviewed on the ward, to ensure the summary was present. Improvements were recorded in almost all of the measured domains. The domains of "documented consultant to consultant handover," and "presence of discharge summary in patient's notes" both demonstrated slightly decreased compliance. Significantly improved compliance with NICE guidelines [1] and other quality indicators were demonstrated. Documented verbal nursing and medical handovers increased significantly, which is important for continuity of care and clinical governance.

Compliance after changes to discharge summary template

- Summary of critical care stay, including diagnosis and treatment: 98%

- A monitoring and investigation plan: 95%

- A plan for ongoing treatment, including:

- (a) Drugs: 98%

- (b) Nutrition plan: 98%

- (c) Infection status and plan: 100%

- (d) Limitations of treatment: 98%

- Rehabilitation and therapy needs: 95%

- Psychological and emotional needs: 98%

- Specific communication or language needs: 98%

Further criteria which were audited showed the following compliance:

- Presence of discharge summary in patient's notes: 90%

- Documented verbal handover between nursing teams: 53%

- Documented verbal handover between medical teams: 86%

- Documented consultant to consultant handover: 76%.

The new template was also audited for specific inclusion of resuscitation status, and showed 100% completion.

See supplementary file: ds6241.pdf - “Graph showing comparison of compliance before and after change, and new discharge summary with changes highlighted in red.”

Lessons and limitations

The intensive care team have significant resources to draw upon in caring for patients, with a multidisciplinary team caring for the biopsychosocial needs of patients and relatives 24 hours a day. For this to translate into ongoing optimal, tailored, and seamless care for patients with complex issues, excellent communication is vital. This is particularly so when patients step down to a general ward, as the handover process is often the weakest link in the chain of the hospital journey. We observed this in practice, learning that many discharge summaries failed to adequately reflect the complexity of care received during intensive care admissions. On consultation, we learned that ward doctors valued the concept of having rapid access to a summary of all a patient’s needs, and a plan going forward, as information buried throughout thick paper notes may be missed, and therefore never inform patient care. We learned the importance of involving the critical care team in changing the discharge template. Gaining consensus meant changes could be successfully embedded, as everyone then understood the rationale behind the new template.

Increasing workload has implications on intensive care unit staffing, and the effective delivery of care. With evidence that more information was included on the new discharge summary, it would be useful to identify how this affected the workload of junior doctors. Although feedback was positive, it was not specifically identified whether doctors were spending longer writing the discharge summaries to achieve increased compliance. Paradoxically, the formalised structure may have allowed for more efficient collation of information, resulting in a shorter time to completion. The lesson from this was the importance of considering the impact interventions can have on how systems function, and possibly performing an analysis of predicted impact on workloads.

One potential pitfall of mixing electronic and paper records, as in this case, is the challenge of ensuring both sets of records are up to date and available. Here, a minority of patients did not have the summary in their paper notes. Therefore, ensuring the new discharge summaries are fully effective may also mean improving systems for accessing them, eg transitioning so that all clinicians have access to electronic records. Another limitation of this exercise is that most of the consultation on the new discharge summary was focused on the intensive care team. In order to ensure the discharge summary is also fully effective for ward teams, it would be helpful to also examine their usage of the discharge summaries, to understand the efficacy of handover more fully from their perspective.

Conclusion

This project demonstrated how modifying system factors, such as a standardised template, could effectively modify individuals’ practices. Simple changes to the design of an intensive care discharge summary have been shown to greatly improve the quality of handover information, with the aim of improved continuity and quality of care. Changes to the recording of verbal handover events means improved clinical governance and greater accountability, if

the process breaks down in individual cases in the future. This project is easily transferable to other hospitals, and offers simple measures to improve critical care handover, which is recognised as vital for improving the care delivered to acutely ill patients.

References

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Declaration of interests

Nothing to declare

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Ethical approval

This project was approved by the Hillingdon Hospital audit office as a quality improvement project. As such, it was exempt from requiring ethical approval.