

# Quality of the 'diagnosis card': evidence from a single unit at the Lady Ridgeway Children's Hospital

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## Introduction

The 'diagnosis card', is the take-home discharge summary that every in-door patient receives when leaving hospital. A source of information to the patient and his health care providers, this patient-held document is of great value at future encounters with health services<sup>1,2</sup>. The task of writing this important document is customarily that of the most junior doctor on duty. However, specific guidelines for creating a high quality 'diagnosis card' and mechanisms for monitoring the accuracy of its contents are unavailable.

## Objective

To determine whether information in the clinical notes of individual patients is accurately conveyed into the 'diagnosis card' on discharge

## Method

Data was collected over a 2 month period (mid-November 2010 to mid-January 2011). Every third patient was selected at the time of discharge until a sample size of 100 was reached.

Those admitted only to undergo specialized investigations, those transferred out to surgical or other units and those who had their cards written by a middle level or senior doctor were excluded. When a selected patient met with any of the above exclusion criteria the very next patient's card was selected.

A standard proforma was developed to enable data collection and was piloted prior to the study. It included cardinal aspects of the history and physical examination together with laboratory and other diagnostic investigations. Case note analysis and

interview of a middle level or senior doctor who was in charge of each patient were used to compare accuracy of contents of each card with regard to clinical events, important findings and clinical decisions made. Discrepancies, if any, were noted in the proforma.

## Results

The 100 cards analysed comprised 84 written by intern house officers, 14 by medical students (who were supervised and counter signed by a paediatric registrar) and 2 by medical students with no counter signature available. Average age of patients was 2.8 years; the sex distribution was 48 girls and 52 boys. The sample was classified into four groups: a previously healthy child with an acute illness (83), readmission for a chronic condition (13), a newly developed secondary complication of a chronic illness (4) and an incidental illness not associated with an on-going underlying chronic condition. Average length of stay for group 1 was 3.0 days and 3.8 days for groups 3 and 4.

100% of the clinical case notes were clearly written and diagnosis was recorded with relevant triggers and other antecedent events but only 92% discharge cards had correct and complete diagnoses. Risk factors or antecedent events and relevant negative features were noted only in 75% cards. Past medical history, immunization history, birth history and family history were documented in 100% of the case/clinical notes but were mentioned in only 98%, 92%, 87% and 66% of the discharge cards respectively. Social history had very low documentation rate overall and was evident in 68% of case notes and 32% of discharge cards.

In general, most cards were well written with relevant information that could be a useful reference in the future. However in the majority of cards studied, the march of clinical events as they occurred was not reflected, nor was the time scales of occurrence of clinical events discernible. Historical data was identified as frequently under reported. Drug history and adverse effects to medications were incompletely or inaccurately mentioned as was allergy status.

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These were mentioned in only 32% of patients in whom such information was found in the case notes and had been deemed relevant and important. All case notes and cards contained information on the medication given but the duration of medication was noted in only in 34% of the cards. Only 30% of case notes & 8% of cards mentioned adverse effects of drugs. Neither the notes nor the cards had any documentation regarding drug compliance.

Findings of physical examinations on the other hand were mentioned with due emphasis in all case notes as well as in the discharge cards. Important incidental findings were mentioned in 100% of the notes and 98% of the cards. Investigations were mentioned in all the notes and cards.

Diagnosis was incompletely transcribed into 8% of cards and ICD classification was not used in any of the diagnoses. With regard to patient management, a clear plan on what was done in the ward was mentioned in the majority but the future plan for the attending doctor was mentioned in only 94% of notes and in a similar proportion of discharge cards. Instructions to mothers regarding the future plan of management i.e. clinic appointments, frequency of visits, environmental or other precautions, was hardly ever documented in the notes, but was clearly mentioned in 74% of the cards. Twenty six percent of cards failed to document future management by the mother / family. In approximately 12% of cards too much information was included, which was not relevant.

Time taken to write discharge cards varied and the writer was often under time pressure to finish the cards quickly. Different styles of writing the cards were used.

### Conclusions

- Most of the discharge summary cards were written satisfactorily but there is room for improvement. A higher standard of discharge summaries would have been obtained if more time and more clinical experience had been available to the writer.
- Different styles of writing the cards used lead to the omission of relevant data.
- Certain oversights occurred regularly with regard to history, especially regarding duration of drug treatment, allergy status and home situation.

- Although the length of stay was only slightly longer for patients with a chronic condition (3.8 days versus 3.0 days) their diagnosis cards were more comprehensive and contained more relevant information.

For future improvement we recommend:

- Specifying the complete diagnosis in case notes at the time the decision to discharge is made on ward rounds.
- Seeking assistance from a middle level doctor regarding salient points in history, examination and investigations at time of writing the card, when confronted with a confusing clinical situation.
- Junior medical staff be afforded designated time for writing discharge cards.
- Documenting the duration of medications administered being made mandatory.
- Specifying allergy status in initial clerking and making it obvious in case notes.
- Including more background history in diagnosis cards where relevant, especially regarding social history and home situation.
- Including information on home based and future management at a level more appropriate for mother.

### References

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