What's missing?

Linking patient information to patient care

An audit of admission and discharge practices between residential aged care facilities and the Royal Brisbane & Women's Hospital

July 2009

Public Report on Pilot Study for

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

as part of the National Clinical Handover Initiative

Acknowledgements

The Residential Aged Care Facility (RACF)/Hospital Clinical Handover Project is managed through the Australian Government Department of Health and Ageing and is funded by the Australian Commission on Safety and Quality in Health Care.

Support for this project was received from 20 of the 22 organisations managing the 70 RACFs in the Brisbane North district. We appreciate your support and trust in our ability to undertake this audit on your behalf and believe this report will bring improved understanding, increased knowledge and confidence to change processes toward safer handover for residents transferring to and from acute facilities.

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Suggested Citation:

Hoare, H. (2009). What's missing? Linking patient information to patient care – public report on pilot study. Brisbane: GPpartners Ltd.

Disclaimer:

This pilot study was funded by the Australian Commission on Safety and Quality in Health Care (ACSQHC) as part of the National Clinical Handover Initiative. Each study within the Initiative aimed to design transferable improvement tools and solutions for handover that could be localised to different contexts. This Public Report provides a summary of the pilot study undertaken; for additional details please contact ACSQHC.

ACSQHC acknowledges that the information contained in this one-year study presents initial developments and supports longer-term research and evaluation. The information presented here does not necessarily reflect the views of the Commission, nor can its accuracy be guaranteed.

Contents

Acronyms

CMA	Comprehensive Medical Assessment
ED	Emergency Department
EDIS	Emergency Department Information System
GP	General Practitioner
HBIS	Hospital Based Information System
HINH	Hospital in the Nursing Home
HRX	Health Record eXchange System
RACF	Residential Aged Care Facility
RBWH	Royal Brisbane and Women's Hospital (RBWH)

Abstract

Residential Aged Care Facility (RACF) residents are admitted to hospitals and Emergency Departments often without key clinical information, and hospitals similarly return residents without the necessary clinical information at discharge. The resident's regular General Practitioner (GP) may also be unavailable to provide the needed information at admission or uninformed of changes to circumstances and medication upon discharge. In this study, GPpartners developed an audit tool focused specifically on information flow in RACFs and hospitals transfers. This centred on how admission and discharge information is currently received, what kind of information is received and the possible impact on clinical outcomes.

Two audits were performed at the Royal Brisbane & Women's Hospital (RBWH) three months apart, on both admissions and discharges of residents in RACFs. Two methods for improving patient information flow in these transfers were promoted between the first and second audits - the Yellow Envelope (paper-based) and Health Records eXchange (electronic). From the 295 hospital charts involved, this study found that there was improvement on some indicators in the second audit, such as an increase of clinical information included in admissions and also an increase in discharges received with the resident. However, a longer time for implementation to witness a practice change is required – in particular with relation to general education and the electronic health summary. This audit has enabled staff from the hospital, RACFs and also GPs to be more aware of the increased risk of injury to patients (that are already at high risk due to their age, frailty, and degree of chronic illness) from the lack of appropriate information during a transfer.

Executive Summary

Introduction

GPpartners' aged care team, general practitioners (GPs), Residential Aged Care Facilities (RACFs) and the Hospital in the Nursing Home (HINH) staff of the Royal Brisbane and Women's Hospital (RBWH) were concerned about reports relating to lack of discharge information being received by residential aged care facilities. Conversely, medical and nursing staff of the hospital's Emergency Department expressed concern at the variation in quality of information received with residents presenting to their department**.**

Objectives

The project goal was to deploy a patient care quality improvement initiative targeting the interfaces, hand-over processes and clinical information flow between RACFs, hospitals and their treating GPs. This project was designed to achieve safer, more effective and more responsive clinical handovers for residential aged care residents as they transfer to and from acute facilities. These patients are recognised as high risk.

Method – Two Audits of Admissions and Discharge

GPpartners developed an assessment audit toolkit based on the General Practice Advisory Council guidelines (GPAC 2004). Audits on information received at the Emergency Department from RACFs were performed by two hospital-based project officers. Audits on information received from the hospital by the RACFs were audited by two GPs who currently treat residents in residential aged care.

An initial one month audit was performed as a baseline to gather information on how admission and discharge information is currently received, the kind of information included and the possible impact on clinical outcomes. Some interventions following the audit included education on the Yellow Envelope (a communication tool) and promotion of RACF residents to Health Record eXchange (HRX), a shared electronic health record system. A second audit was performed three months after the initial audit. However, as this time frame was extremely short, not all planned interventions were completed by the commencement of the second audit.

Results: Admission Information

A total of 104 hospital charts were audited in the first stage and 91 charts in the second stage. Although the second audit showed some measurable improvements in the quality of information provided to the hospital by RACFs, there remains concern about the increased risk of accidental harm to residents in hospital when information is not included in their transfer summary. Some significant findings included:

- Over ninety per cent (91.1%) of residents did not have an end-of-life plan or if they did, it was not made available to hospital staff.
- Although information was transferred with the patient there was only evidence that the Yellow Envelope system had been used in 23% of admissions and very little direct input was provided by GPs (25.6% of admissions) on the reason for transfer and recent medical history.
- Current status of the resident with relation to mobility, nutrition, communication needs, behaviours and continence was not available in 35% to 60% of transfer summaries. Medications and allergies were not recorded five to eight per cent of the time.
- Further information was sought from RACFs in 45% to 50% of cases.
- Auditors were unsure in 60% to 40% of cases whether improved communication may have prevented these admissions.

Results: Discharge Information

A total of 65 residential aged care charts were audited in the first stage and 35 charts in the second stage. Some significant findings included:

- Over 40% of the time, facilities were not given prior notice of the resident being discharged from hospital. However, 91% of the time discharge information was received with the resident. This was an improvement of over 20% on the first audit.

- Nursing discharge summaries increased from 4.6% to 41.7% between the first and second audits. This could be directly related to a trial being undertaken with an inpatient Hospital in the Nursing Home discharge liaison officer located in the wards.
- Medications available on discharge improved from 32.3% to 72% over the duration of the audits. Again this relates to a project being undertaken between GPpartners, the Queensland Health Safe Medication Practice Unit and the RBWH pharmacy department, yet still almost 30% of residents were discharged without medications or information available.
- The information most lacking in clinical information upon discharge were follow up arrangements and changes to medications lists (30.6%). It may be a coincidence that 30.6% of residents were also discharged after-hours (i.e. times outside of Monday to Friday 9am – 5pm).
- Almost twenty-eight per cent of residents (27.8%) were readmitted to hospital within six weeks, 30% of these related to their previous admission.

Conclusions

The audits were successful in enabling identification of the systems currently in use for sharing and collecting admission and discharge information. The clinical information needed by Emergency Departments is not always provided by the RACFs' current transfer systems. Conversely, follow-up arrangements or ongoing patient management plans are frequently not available for RACFs on discharge from the acute facility.

Standardised forms are available for RACFs but do not appear to be in general use. Many facilities have electronic programs that enable health summaries to be printed and these may need content review to ensure all essential information required by the hospital is included. Furthermore, GPs appear to have little input into the current transfer systems from RACFs to hospital and this should be reviewed.

Discharge programs currently being put into place in the acute facility are showing improvements through the audit but these are unit-based and not across the entire facility. 91% of discharge summaries are being received by RACFs within 24 hours of discharge and mostly with the resident at time of transfer. There is improved recognition by the hospital that RACF staff needs the same information that is provided to GPs to enable safe and informed continuity of care. However, these process improvements need to be embedded facility-wide.

Using a shared electronic health summary would enhance current transfer processes and enable quicker and more reliable access to patient information for future admissions. The short time frame of the project did not allow for effective implementation of the HRX system within RACFs. This requires continued implementation, education and follow-up. The HRX would provide structured processes which have been shown to be beneficial to medical decision making and therefore to patient outcomes (Carpenter & Ram, 2008).

Background

Information flow between RACFs and hospitals

Wong et al (2008) identified seniority and experience of staff, the nature/type of communication behaviours, quality and content of information recorded and/or exchanged, discontinuity in patient care, lack of standardised protocols and health professional fatigue as high risk scenarios in clinical handover research. The literature on clinical handover mostly refers to internal situations but if these risks are considered in the context of residential aged care, they can be presumed to be even higher.

Aged care is chronically understaffed by professional health personnel in a stretched work environment. Communication can be disjointed with offsite or visiting medical officers, remote Registered Nurse supervision and varying levels of registered and unregistered staff. These staff may have uncertain levels of understanding of the information needed to make appropriate decisions about the patient's care. Residents in aged care facilities needing transfer to hospitals are removed from their normal surroundings and staff must notify their families and regular health care team. At times, it is uncertain which facility the ambulance will transfer the resident to. The combination of these factors creates a recipe for potential disaster and highlights the importance of identifying clear processes for the transfer of required information, or as termed by the General Practice Advisory Council, a minimum data set (GPAC, 2004).

In the course of a patient's treatment, different teams may care for the same patient over any given day. In particular with the frail elderly, there can be cross-over between specialties (e.g. orthopaedic and medical teams) and an increased multi-disciplinary approach to care. However, if the resident is discharged from a particular unit, the discharge information may not cover all of the medical information. Knowledge of the discharge pathway assists the team taking over care to obtain further information if required.

Responsibility and accountability between GPs, hospitals and RACFs

The AMA's *'Safe Handover: Safe Patients Guidelines*' (2006) poses the question of accountability and responsibility: "Poor handover carries significant risks for individual clinicians, their organisations and for their patients." In residential aged care there is shared accountability and responsibility between the organisation and the GP, but how are these roles, responsibilities and accountabilities verified? Who is accountable for any harm or injury that may result: the GP, facility staff or the hospital? This question is compounded further if the resident has returned to the facility without prior notification. Can responsibility be passed onto the next team?

The GPAC guidelines (2004) state that a key accountability for GPs is: *"provision of comprehensive, legible referral information to hospital for all planned admissions, and for referrals to Emergency Department (where relevant)"*. Most GPs are able to print health summaries from their surgery software and some GPs undertake Comprehensive Medical Assessments (CMA) of their residents. These forms should include adequate information to provide hospital doctors with sufficient knowledge to aid decision making, and may be paper-based but is usually electronic. It appears however, that updated information is not provided to acute facilities upon transfer. Shared electronic health systems, like the HRX, would improve this, although some facilities have electronic systems that enable printing of current health summary information, whilst others do not.

The Yellow Envelope

GPpartners, in conjunction with Moreton Bay General Practice Network, undertook a program to introduce a 'Yellow Envelope' system to promote adequate information to be forwarded to acute care facilities, in order to enable safe continuity of care and easier decision making on patient care and management. The C4 size resealable yellow envelope contains prompts on what information should be included inside the envelope by RACF staff to enable good handover of information for acute care staff. The envelope acts as a visual prompt to alert hospital staff that this person is an aged care resident and is designed to follow the resident through the hospital system and act as a tool to prompt information to be returned with the resident to the facility.

Education about implementing the Yellow Envelope system was provided to the acute facility involved in this audit (12 to 18 months prior to the audit being undertaken), senior RACF staff, and ambulance and transport services regarding admission and discharge to and from hospital to residential aged care.

Health Record eXchange (HRX)

The National Reporting and Learning System operated by the National Patient Safety Agency in the United Kingdom reported on areas of concern following a review of errors caused through incorrect patient identification. They identified four classifications, one of which refers to "Mismatches between patients and their medical records, e.g. where a patient's records or results are filed in another patient's medical records, or where the wrong medical records are with a patient" (ACSQHC, 2008). Loose paper systems lend themselves to these types of errors. An electronic record able to be viewed by various practitioners could reduce the possibility of identification error.

More than four years ago, GPpartners investigated an electronic health record as part of a coordinated care trial (Team Care Health II) funded by the Australian Government Department of Health & Ageing and Queensland Health. The need for this system arose as paper-based methods would not allow timely movement of information between care team members. A shared electronic health summary, the Health Record eXchange (HRX), was trialled for patients with multiple chronic diseases between GPs, team care coordinators, allied health, community service providers and acute care. Currently, HRX supports coordinated care projects funded by Department of Veterans' Affairs, Queensland Health and Medibank Private Health Insurance by generating and sharing patient electronic health summaries.

The HRX enables changes to medication, treatments and ongoing management to be updated at the push of a button when used by GPs with their current medical software such as Medical Director and Practix. This electronic process could work well in such a controlled environment, enabling one point of entry for basic details such as name, date of birth, next of kin, current address and current GP details. Patients transferred to an acute facility will potentially require transfers and be treated by a number of professionals in multiple settings. Although the electronic health record system can be used by multiple users, they are unable to make changes to the core information but can add relevant information on services provided to the resident, such as specialist reviews. Less people entering baseline data decreases the risk of inadvertent error.

Aims of the Project

The objectives for this project were to:

- develop an audit tool for information flow between RACFs, acute facilities and GPs when an aged care resident is transferred to and from hospital
- identify the processes involved in this transfer, and
- undertake an audit to collect evidence-based information that can inform recommendations for process change

The project aimed to review both a standardised paper-based system and to explore the opportunities of the already existing HRX shared electronic health summary, currently deployed on a limited bases by GPpartners and several Brisbane public and private hospitals. The audit enables organisations to clearly identify areas of concern and target these areas for a more in-depth review.

Following the initial audit, it was the aim of the project that some of the recommendations would be actioned and that these actions should result in some improvement in the second audit. Despite the tight timeframe, an intense education program to promote the paper-based Yellow Envelope at the acute facility was started and negotiations began with GPs and RACFs to register residents to the HRX system.

Research Design

This project included all residents from RACFs in the GPpartners catchment area who were admitted to and discharged from The Royal Brisbane and Women's Hospital (RBWH) Emergency Department and/or Acute Ward areas, including day admissions and Hospital in the Nursing Home (HINH). The decision was made not to specify a specific number of audits to be undertaken but to limit the audits to a one month (30 day) period,

Audit Process

The audit was designed to be the least invasive as possible to normal staff time, therefore no reliance was placed upon hospital admission staff or RACF staff to advise when a resident was admitted or discharged from hospital. This information was gained from the two acute facility auditors, both registered nurses with current research experience. Two GPs who currently visit RACFs were recruited to undertake the discharge audits in the RACFs. All resident/patient information was de-identified.

Two separate audits were undertaken three months apart. This enabled review of the use of the tool and to make changes to the form or guidelines if it seemed more clarity was required. There were some minor changes made to the form for the second audit; this helped clarify some of the details for data entry. The decision was made not to specify a specific number of audits to be undertaken but to limit the audits to a one month (30 day) period. Table 1 below shows the number of audits undertaken in the first and second rounds:

Audit number	Admissions	Discharges	Audit ratio, discharge to admission
1	104	65	62.5%
2	91	36	39.5%

Table 1. Number of admission and discharge audits

Identifying patients for audit

A number of methods were utilised by the acute facility auditors to identify residents transferred to the Emergency Department. This exercise alone identified the difficulties of obtaining information in a disjointed system. Often the information systems used within the hospital do not require mandatory identification of the patient as being from a RACF. Therefore hospital staff often rely on the address provided to determine whether the patient is from a RACF, which may or may not include a facility name with the street address. Furthermore, a facility name does not necessarily identify if the resident is from the independent living units attached or receiving care in a nursing home or hostel section of the facility.

Systems to identify patient information

The Emergency Department uses an electronic system called EDIS (Emergency Department Information System) to register presentations to their department. The acute facility Hospital in the Nursing Home section uses a paper-based list of referred transfers. This was used as a second check list, however not all residential aged care transfers are referred to this program. A third method of identification was obtained from the electronic Hospital Based Clinical Information System (HBCIS) through the Clinical Coding Department to identify patients admitted to acute facility wards or discharged to RACF during the auditing month.

It is interesting to note that the EDIS and HBCIS systems used internally within the acute facility do not 'speak' to each other. It is also worth noting that access to the EDIS is not necessarily available to clinicians in the acute ward areas, meaning that information entered onto the EDIS system is not necessarily available to the treating clinical admitting team.

Developing audit tools

To develop the audit forms, an advisory group was called together with representation from key areas of the acute facility (including upper management), GPs, Residential Aged Care Facility Managers and GPpartners aged care project officers. The audits would be based on evidence – information clearly filed or written in patient charts that any health professional providing care would be able to access. Verbal information that may have been given but not include in written information would not be considered as sustainable and reliable information.

Audit Tools: the Admission and Discharge Forms

Two separate audit sheets were developed – an '*Admission Information from Residential Aged Care'* form and a *'Discharge Information from Acute Facility'* form. Both forms were developed around three sections: how information is currently received, what information is currently received, and possible impact on clinical outcomes.

The audit forms were set up to be as simple to use as possible. For each question tick boxes were provided to identify evidence of information in charts. An area was also provided for auditors to record further clarification or comments. Guidelines for completing the audit forms were developed to ensure consistency across auditors and all auditors were trained to use the tool and performed a cross audit for verification.

A simple Excel spreadsheet was developed to capture the audit data. Each audit was given a coded number. Each question was given a number, as was each possible answer or group of answers given a corresponding number. The audit tools used within this project are general tools, and are not limited to specific software programs, for those who wish to undertake an audit in their facilities.

Audit Form 1: Admission Information (from RACF to acute facility)

Section 1: How is information received from the RACF?

This section of the tool investigated how information appeared to have been received at the acute facility. It included options such as the Yellow Envelope, loose paperwork and correspondence from GPs or facilities transported with the patient or sent prior to or following the patient's arrival to the Emergency Department.

This section also identified if the family were consulted as a source of information and seeks evidence of a phone call from GPs or RACFs to notify the hospital of the resident's impending arrival. The questions enabled identification of the types of forms used for transferring patient information, such as the Ambulance form, Comprehensive Medical Assessments or RACF transfer forms. It also included an area to identify if patients were registered with a shared electronic health system.

The time of arrival, who initiated the transfer and whether the event was a re-presentation within a six week period was also included in section 1. Re-presentation rates are a common data set collected by hospitals however, for the purposes of the audit, re-presentation was related to the lack of timely discharge information, follow-up arrangements or ongoing management recommendations.

Section 2: What information is received?

Regardless of the format of the information received – via the Yellow Envelope, shared electronic health summary or letter from the RACF – a key consideration was the type and quality of the information provided. This section of the audit form was broken into three areas:

A: Standard Information

This relates to identification of the patient, date of birth, address and contact information, relative (next of kin or Enduring Power of Attorney) contact details, usual GP details, Advanced Health Directive or end-of-life care planning. This section is seen as vital to the correct identification of the patient and provides correct information for communication with key persons (GP and family). End-of-life care planning was seen as a most important component of communication enabling the person's health wishes to be known and asserting their rights as an individual.

B: Clinical Information

This relates to the clinical information around the current presentation. It includes the reason for transfer, current or usual observations, current or usual health problems, medications, allergies, nutrition requirements. This section concerns the core of the presentation. Why is the person here? What are the clinical changes, signs and/or symptoms for presentation? Was a basic and current health summary and management of identified diagnoses included?

C: Usual Functionality

This section establishes safe patient management by identifying the basic care needs of residents and assists communication with the patient. It includes relevant past history, mental status, communication, mobility and continence needs and behaviours - possible management. Risk management tools are being used in hospital settings and are used in residential aged care. The most common of these tools identifies high risk of falls and pressure areas and enables staff to take action to minimise risk of harm to patients.

Section 3: Impact on Clinical Outcomes
This section identifies the pathway that care management has taken when the patient presented to the Emergency Department.

It includes the time of presentation and time spent in the Emergency Department. It seeks to ascertain if further information was needed from the GP or RACF to make a better informed decision about the patient's management. It identifies the referral path to Hospital in the Nursing Home or Acute Admission, length of stay and asks whether the admission could have been avoided with improved transfer information. In some cases this last question may be difficult to determine, as it is largely a subjective judgement.

This section identifies if there were any recorded medication or clinical adverse events that may have been caused by a gap in the transfer information.

Audit Form 2: Discharge Information (from acute facility to RACF)

Section 1: How is discharge information received from the acute facility?
This section looked at how information was received at the RACF and identified its timeliness of receipt. It included options such as the Yellow Envelope, loose paperwork, letters or faxes sent to the GP or RACF or phone calls made.

Most GPs and many RACFs currently operate computerised systems. The fax machine still has a place but is not seen as the most efficient way of communicating with a GP or RACF, especially where the GP is mobile for most of the day. GPs and RACFs realise that email is a preferred communication option for them. It provides less invasive access to the GP, enables the GP to view the information or request at a time suitable to them. Faxes tend to go to one phone number and are gathered up at the end of the day if possible, resulting in delayed access to information and delayed response. Yet this is the system hospitals currently rely on.

Electronic discharge capability is starting to roll out through the public health system but it is slow. Electronic summaries not only enhance continuity of care but also avoid patient information having to be recollected and re-documented on each presentation and possibly each transfer between units. (AMA, 2006).

Section 2: What information is received?
For the discharge summary this section consists of two separate areas:

A: Standard Information

This identifies admission date, discharge date, unit or ward, consultant name and the contact Medical Officer at the acute facility. This information was seen as vital to enable any ongoing communication and/or clarification that may be required following discharge.

B: Clinical Information

This information is vital to identify the course during the hospital transfer and for the safe continuity of resident care management by the facility and the GP.

These questions are clearly articulated as requirements in the 2007 GPAC guidelines and are seen as the minimum data set to enable appropriate and safe ongoing care of the resident.

Section 3: Impact on Clinical Outcomes
This section was aimed at identifying influencing factors that may impact on clinical outcomes such as: time of discharge, timeliness of receipt of discharge information, adverse medication or clinical events that may have been caused by delayed or absent discharge information, and readmissions to hospital. Readmissions are further broken down into:

- within six weeks following discharge
- apparent link to previous admission
- if the re-admission could have been avoided with better and/or more timely discharge information

Clinical information included in the summary is traditionally determined by the hospital and this can vary from department to department. Lack of consistent information can in itself be reason for residents representing to the hospital soon after discharge.

Audit Findings and Discussion

This section compares and discusses findings between the first and second audits for both admission and discharge practices between RACFs and the acute facility. The following discusses some of the significant results according to how information was received, what information was included and the possible impact on clinical outcomes.

Admissions – from RACF to Hospital

The first admissions audit reviewed 104 charts while the second audit reviewed 91 charts. Although the second audit showed some measurable improvements in the quality of information provided to the hospital by RACFs, there remains concern about the increased risk of accidental harm to residents in hospital when information is not included in their transfer summary.

Section 1: How is information received from the RACF?

The major finding between the first and second audit was the 45% decrease in information received as loose paperwork. This could relate to an improved use and knowledge of the Yellow Envelope system, but would need some further investigation, as it does not completely correlate with the 10% improvement in the use of the Yellow Envelope. Other positive results between the first and second audits included a 12% increase in letters from the GP and a 10% decrease in readmissions to hospital within 6 weeks.

This audit also demonstrated that approximately three quarters of RACF to hospital transfers were initiated by RACF staff. This appears to dispel the myth that most transfers are initiated by agency or after-hours GPs. Although information was transferred with the patient there was only evidence that the Yellow Envelope system had been used in 23% of admissions and very little direct input was provided by GPs (25.6% of admissions) on the reason for transfer and recent medical history.

Section 2: What information is received?

Patient details, such as name, date of birth and RACF contact details, in fact slightly decreased from the first to second audit and further investigation is needed to ascertain why these core details were missing in 1-3% of residents. Positive results in the second audit included more clinical information available upon admission, including: reason for presentation, observations, the patient's health history and mental status. While clinical information generally increased in the second audit, the current status of the resident in relation to mobility, nutrition, communication needs, behaviours and continence was not available in 35% to 60% of transfer summaries. Medications and allergies were not recorded five to eight per cent of the time.

The rate of advising the patient's next of kin increased from 65% to approximately 87%, however both audits demonstrated that next of kin details were only provided in approximately one-quarter of admission transfers. Over ninety per cent (91.1%) of residents did not have an End-of-life plan or if they did, it was not made available to hospital staff.

Section 3: Impact on Clinical Outcomes

There was a slight decrease in further information sought, however this still occurred in 45% to 50% of cases. If further information was needed, the RACF was contacted in approximately half the cases, while the GP was called 10-15% of the time. Auditors were unsure in 40% to 60% of cases whether improved communication may have prevented these admissions. Approximately 85% of residents were referred to HINH however there was also a large increase of residents admitted to hospital (from 58% in the first audit to 84% in the second). Further investigation into diagnoses would be required to make further comment on the increase in these figures.

70% of residents remained in the Emergency Department for 0-9hrs, with the majority again between 3-9hrs. There were no transfers in the department longer than 18 hrs for the second audit. Several reasons this may occur include initiatives such as the HINH and the Patient Flow Unit, which aimed to expedite the treatment and discharge of residents from RACFs.

Admissions - Issues and discussion

After the first audit, the Yellow Envelope was promoted as a resource to RACFs as a transfer tool and was used more frequently, however was not widely known or used within the acute facility. GPpartners also liaised with many RACFs, the hospital marketing unit and acute facilities to promote and deliver education on the Envelope. Despite the prompts placed on the yellow envelope, there were varying levels of information being sent into the acute facility, thus increasing the risk of accidental injury to the resident.

There is little evidence of GP input into the transfer process and access to the GP is limited. Sources for finding core identification information also varied.

Despite initial interest, no residential aged care organisation wished to commit to implementing the shared electronic health record during this study. However, the industry has undergone a lot of enforced change recently, with changes to their funding system, increased spot accreditation visits, severe and enforced changes through the elderly abuse regulations and the complaints investigation scheme. As a whole, they agreed with the principles of the shared electronic health record system and were not adverse to residents consenting to the HRX through their GPs. GPpartners would like to continue to register residents with the aim that this could be done through the nursing staff as part of their admission process in the future. GPs are also encouraged to register any new residents to RACFs to the HRX.

The HRX has already been introduced to the Acute Care Facility, but in a limited application. Discussion on further roll-out has been undertaken through the GPpartners IT team and the hospital-community collaborative. A decision was made to connect the Hospital in the Nursing Home (HINH) team to this system as a first priority. When it is considered that 83.5% of transfers to the Emergency Department from RACFs are referred to this team, it makes practical sense to ensure they have access to the current medical summary from the visiting GPs. The full HINH team is now able to access and view relevant resident information.

Feedback from the hospital auditors included:

- Audits need to be conducted with adequate resources to be successful in gaining access to charts.
- Finding charts is a large part of the chart audit due to misfiled or missing charts and as yet unfiled information.
- Communication with the Emergency Department has to be a priority to gain their support.
- Real time study to reflect the actual use of the Yellow Envelope would be beneficial.
- Measurement of the use of the Yellow Envelope would be a useful indicator to reflect communication between organisations and effectiveness of the tool.
- A longer time for implementation to witness a practice change is required – in particular with relation to general education and the electronic health summary.

Discharges – from Hospital to RACF

The first audit on discharges reviewed 65 charts and the second audit reviewed 36 charts. There were some difficulties collecting information for this audit at various RACFs. As there was a delay between the date of patient discharge and when the audits were completed, the information was based on letters received in the patient file, nursing progress notes and nursing recollection of events.

Section 1: How is discharge information received from the acute facility?

There were some marked improvements in discharges between the first and second audits. These included discharge information frequently sent with the patient at the time (from 68% in the first audit to 92% in the second) and increases in medication lists available (from 32% to 72%). These results may be directly related to a current trial project with a dedicated HINH staff member allocated to inpatient wards to improve early discharge rates and discharge communication, as well as a Safe Medication Practice Unit project currently undertaken at RBWH.

There was a reasonable amount of phone contact between the hospital and RACF, more so from the ward than from the Emergency Department. Approximately over half of the discharge cases recorded a phone call made to the RACF prior to discharge, however this is an area that requires improvement. Medical discharge

information was the most common form of communication while nursing information was commonly sent if a patient had been admitted to a ward, especially prolonged admissions. Allied health discharge summaries were not frequently received and surprisingly even from wards where there would have been an obvious allied health input such as orthopaedics or rehabilitation admissions.

Section 2: What information is received?

Standard information was usually present however the discharge date was commonly omitted from the front page of computerised discharge summaries from the wards. The second audit recorded a surprising 78% of omitted discharge dates, however this must be viewed against the final number of only 36 audits. These discharge summaries seem to be constantly added to over the course of admission and printed at the time of discharge.

In terms of clinical information, there were significant improvements in providing recommendations for GPs (from 72% to 97%) however despite over 20% improvement in follow-up arrangements, close to one-third of transfers are still missing this information. In the second audit, all information was legible, appropriate, relevant and succinct and almost all discharges included contact details of the doctor at RBWH. Different formats of medical discharge summaries were seen across the medical and surgical wards, nursing, psychiatry and allied health.

Section 3: Impact on Clinical Outcomes

The majority of information was received within 24 hours. According to RACF progress notes there were a few instances where information was not received with the patient so the RACF had to contact the hospital directly for information to be faxed. Occasionally there was an updated discharge summary sent to the RACF at a later date but rarely beyond 72 hours. There were a number of patients discharged after hours and on weekends. In the Emergency Department, this could be explained by patients going there during the day and not treated and transported within a timeframe to be returned during the day as well.

Readmissions to hospital were common, at a rate of approximately 30%. Sometimes it was difficult to determine if there was an apparent link with the previous admission or not. On the whole, the RACF population naturally have multiple complex chronic health problems which may be difficult to deal with in the RACF during acute exacerbations.

Discharges - Issues and discussion

In the progress notes, some RACFs phoned the hospital to access information on patient progress and possible date of discharge, frequently ringing the HINH service rather than the ward. HINH was highly regarded by many RACF staff for improving communication generally between the hospital and RACFs. It was difficult to ascertain if the Yellow Envelope was used. As audits were commonly done six weeks after discharge, the envelopes were rarely visualised by the auditors in the files. A number of RACFs were not using the envelopes at all, or if they were, could not guarantee that they were used for every hospital transfer. Nursing staff could not accurately recall if the envelopes were being returned after such a lag time for each specific patient.

The quality and timeliness of current discharge summaries varies enormously from hospital to hospital, state to state, ward to ward and shift to shift. Some sections of the hospital use electronically assisted generation of summaries, some use template driven manually-generated summaries, while others use a free text letter style with little structure to the information provided. Some specialists dictate their summaries, which are typed by their administration support personnel. While this may result in good information, the delay in this style of discharge summary can be long. Some RACFs are using hybrid paper and computerised files.

The hospital needs to be aware of the difficulty for RACF staff on weekends and after hours in accessing new medications and having documentation to administer these changes if the GP is not immediately available. There certainly was evidence that this was being done from the hospital with supplying short courses of medications and sending medication signing sheets.

Facilities use a number of different methods to overcome the issue of medications on discharge. Without succinct information and written direction, they may revert to the pre-admission medication regime. The potential for mismanagement due to certain medications not being given are quite high, yet frequently the GPs and facilities are faced with making this decision. Medication management on discharge has long been a concern for residents in residential aged care. Experience has shown that there is confusion with the processes, responsibilities and accountabilities when it comes to ensuring that medication is provided.

Without a known diagnosis or management plan available upon the resident's return, the potential for accidental harm or injury to the resident remains high.

There is little discussion about the role or responsibility of GPs as health team leaders in providing transfer information. There is little evidence that RACFs have processes to collect GP input or include this input in transfer documentation, and little evidence that GPs are offering this.

Changing Practices

The Yellow Envelope is seen as a worthwhile process to continue when using a paper-based system. Comment from the hospital auditors on the successes of this audit include:

- Communication/feedback with GPpartners, Hospital in the Nursing Home and hospital wards has provided further understanding of RACF processes.
- Re-introduction of the usefulness of the Yellow Envelope as a communication tool had a favourable response from clinicians.
- Excellent marketing campaign undertaken to raise awareness of the yellow RACF communication envelope.

A shared electronic health summary that contains all the relevant information would help decrease the risk of accidental injury to residents both in hospital and in the RACF through the provision of structured information. This process would enable real time information-sharing to occur. There have been many recent financial and legislative changes for the residential aged care organisations. Should they embrace this type of technology, the consent process could occur as part of their usual admission process and delays would not occur. However, the process of consenting residents to a shared electronic health summary has proven challenging and slow. Difficulties arise in that the facility needs to learn another system that does not connect entirely with their current software, however this can be overcome with training.

Currently we have 200 residents registered on the HRX system across more than 10 GPs and 11 RACFs. This number is expected to increase rapidly as two project officers have been employed in two major facilities to assist with the consent and registration process, and to put in place processes for new residents to the facility on a continual basis. GPpartners is also liaising to expand the concept with the Pharmacy Department of the Wesley Private Hospital online with the HRX.

The hospital sponsor for this project has included planning for another audit to be undertaken approximately six months after the review and education strategies have been put into place to ensure further evaluation of the changes made. The forum of RACF representatives has discussed the need to utilise the results of the audit for staff education, specifically in relation to improving the clinical information that is forwarded with residents to decrease the risks of accidental injury and to be clearer about the reason for transfer. Discussion around end-of-life planning was promoted when shown the low level of information that was available on transfer.

A draft Transfer Form has been developed and is currently being reviewed by several RACFs, GPs and Acute Facilities. Software companies will be approached once a final draft has been broadly accepted. The Yellow envelope checklists have been reviewed and will be updated with the next round of printing (due in August 2009). GPpartners will continue to work with visiting GPs to connect residents to the system to enable staff at the Emergency Departments to have easy access to resident health information.

Recommendations

Admissions

Recommendation 1

Review the current communication process for transfer between RACF staff and GPs and the areas of responsibility.

Recommendation 2

Review the current forms used by RACFs/GPs for transfer to acute facility (electronic / paper based) against the minimum data set.

Recommendation 3

Review the possibility of electronic transfer or access to information across the RACF and acute facility.

Discharges

Recommendation 1

Identify and establish a consistent process for use of the Yellow Envelope across the service lines in the acute facility.

Recommendation 2

Review the current nursing discharge form for compliance with the GPAC Guidelines toward improved information sharing.

Recommendation 3

Incorporate specific education strategies into ward processes, e.g. inclusion in staff induction processes; use of nurse educators and ward receptionist forums; circulate / educate about support resources (e.g. website and flyers).

Recommendation 4

Review the current yellow envelope tick box format and identify any changes prior to next print.

Recommendation 5

Increase acute facility clinician access to the HRX.

Conclusion

The results of the audit have been helpful in identifying areas that need to be addressed by the RACFs, GPs and acute facility. This audit has enabled staff from both sides to be more aware of the increased risk of injury to patients (that are already at high risk due to their age, frailty, and degree of chronic illness) from the lack of appropriate information.

The current processes being put into place have shown improvement over the period of the audit, however a longer time for implementation to witness a practice change is required – in particular with relation to general education and the electronic health summary The implementation of an inpatient Hospital in the Nursing Home (HINH) role has made a marked impact in promoting earlier discharge back to the RACF and improved discharge information.

The development of accepted minimum data sets is just one step toward the implementation of discharge summaries from acute facilities. The possible implementation of a national electronic discharge summary would go a long way in rectifying some of the gaps in information that are currently visual from the audit undertaken.

Electronic databases that can easily upload current health summary information would certainly decrease the risks of information mismatch with the resident/patient, decrease administrative workloads, improve accessibility and ease of finding information in a clear, concise and formatted way. The project has been useful in that several ongoing recommendations will be put into action. The hospital is already actioning further process review and developing strategies to improve education on the discharge process to RACFs. Through this non-blaming and process-driven approach, the audit has also encouraged improved understanding between these two sectors.

Further discussion needs to occur with the visiting GPs in relation to their responsibility in the provision of clinical information through current Comprehensive Medical Assessments or health summaries and their role in the transfer process.

References

Australian Commission on Safety and Quality in HealthCare (ACSQHC), *Windows into Safety and Quality in Health Care*. ACSQHC Sydney; October 2008

Australian Medical Association, *Guidance on Clinical Handover for Clinicians and Managers*; 2006

Carpenter, I & Ram, M.B, *Handover & Discharge Record Content Structure Standards for Hospital Practice: Pilot Report*; April 2008

General Practice Advisory Council Qld (GPAC), *Continuity of Care Planning Framework for Queensland – Resource Manual*; April 2004

Wong, M., Yee, KC., Turner, P. *Clinical Handover Literature Review*. eHealth Services Research Group, University of Tasmania, Australia; April 2008.