

# Effective discharge policy: are we getting there?

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## Abstract

**Purpose:** To determine patients' knowledge before admission about how many days they were likely to be hospitalised and, after discharge, to determine patients' perceptions of their 'readiness' to leave hospital following carotid endarterectomy. Usefulness of discharge communications to patients' GPs also was ascertained.

**Methods:** Pre- and post-operative self-administered questionnaires to 133 patients and a follow-up telephone survey of GPs providing primary care to 118 of these patients.

**Results:** Pre-operatively, the majority (84.2%) of patients recalled being told how many days they were likely to be hospitalised. Univariate analysis did not demonstrate any factors predicting positive recall. The majority (87.0%) of patients perceived themselves 'ready to go home' at discharge. Twenty-eight GPs (23.7%) had received both a discharge summary from the hospital and a personalised letter from the patient's surgeon. GP's rated the surgeons' letters as significantly more useful than discharge summaries ( $P=0.01$ ).

**Conclusions:** Although hospitals are required by NSW Health's *Effective Discharge Policy* to inform patients about their likely length of stay in hospital, not all patients recalled whether they were so informed pre-operatively. Barriers impeding realisation of the NSW Health policy remain.

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## What is known about the topic?

Recent NSW Health policy on discharge planning from hospital requires that clinicians advise all patients about their likely length of hospitalisation. Adherence to this policy is rarely evaluated systematically. Communication to GPs as part of patient discharge also has been poor.

## What does this study add?

Although many (but not all) patients who participated in our study were well informed about how long they were likely to be hospitalised, communication to GPs by hospitals remained significantly worse than communication supported through private practice.

## What are the implications for practice?

Timely communication to GPs about their patient's hospitalisation remains suboptimal. Rigorous research to evaluate new strategies is warranted.

IN JULY 2001, NSW Health released its '*Shared responsibility for patient care between hospitals and the community — an effective discharge policy*' (NSW Health 2001). This policy promotes the importance of effective discharge from hospital for continuity of care, emphasising the need for communication between patients, carers and service providers, especially general practitioners (NSW Health 2001, p. 4). Two strategies are specifically recommended to improve the process of discharge from NSW public hospitals. The first strategy requires the use of a discharge risk screening tool to identify those for whom social or other factors might delay discharge. The second strategy requires a discharge plan, including an estimated date of discharge. For 'booked' patients, the estimated date of discharge must be determined before admission regardless of the patient's anticipated length of stay (NSW Health 2001). This discharge plan also is essential in "communicating with the patient, family and carers about the discharge date" (NSW Health 2001, p. 3).

Within 6 months of release of this policy in 2001, we conducted surveys of patients and their

general practitioners (GPs) to audit its initial impact in the specific surgical context of booked admission for elective carotid endarterectomy (CEA). Over one thousand CEAs are performed in NSW every year, on patients whose ages range from 35 to over 85 years (NSW Health Epidemiology and Surveillance Branch 1999/2000).

## Methods

All vascular surgeons who participated in a previous state-wide audit of CEA practices ( $n = 54$ ) (Middleton & Donnelly 2002) were invited to participate in this audit. In addition, two vascular surgeons who subsequently had commenced specialist practice were approached to participate. Consenting surgeons were asked to introduce our study to patients during the pre-operative consultation in which an elective CEA was being agreed upon. Patients eligible for recruitment were those undergoing an elective CEA, including 're-do' operations. Patients were ineligible if they could not give informed consent or could not complete a self-administered questionnaire in English.

Patients who consented to participate in the study were asked to complete two self-administered questionnaires: a pre-operative questionnaire, and a post-operative questionnaire 3 months after surgery. Reply-paid envelopes were provided for each questionnaire.

At the end of the pre-operative questionnaire, patients also were asked for permission to contact their GP about discharge issues connected with their CEA operation. Consenting patients provided the name, address and telephone number for their GP. Two weeks after the date of operation, a telephone survey of consenting patients' GPs was conducted.

Ethics approval was obtained from the Central Sydney Area Health Service Ethics Review Committee.

## Instruments

### *Patient self-administered surveys*

In our pre-operative questionnaire, we asked patients for the name of the hospital where they were having their operation and whether they

had been told how many days they were likely to be hospitalised.

In our post-operative questionnaire, we asked patients to select one of three response options to indicate how 'ready' they had felt on discharge to leave hospital ('I felt ready to go home', 'I should have stayed longer', 'I should have left sooner'). Further, we asked patients to recall whether or not they had attended a pre-admission clinic at the hospital where they had their operation ('Yes', 'No', 'Can't remember').

### *GP telephone survey*

In this telephone survey conducted 2 weeks after patients were discharged from hospital, GPs were asked if they had received a copy of the discharge summary from the hospital ('Yes', 'No', 'Unsure'). We then asked about the usefulness of this discharge summary, providing a four point Likert scale ('very useful' to 'not at all useful'). Any comments made by GPs about the discharge summary also were recorded. GPs then were asked if they had received any post-operative correspondence from the vascular surgeon ('Yes', 'No', 'Unsure') and to rate its usefulness, using a four point Likert scale ('very useful' to 'not at all useful').

Copies of all questionnaires are available upon written request.

## Data analysis

Data were analysed using SPSS (Norusis 1999). Chi square analyses were used to determine predictors of patients stating they were told how many days they were likely to stay in hospital. Similarly, using chi square analyses, predictors of GPs' stating they had received the discharge summary from the hospital and predictors of GPs stating they had received post-operative correspondence from the surgeon were calculated.

## Results

### *Patient surveys*

Of 151 patients, four were considered ineligible by the surgeon at the time of recruitment due to inability to complete a self-administered ques-

## I Patient perspectives on discharge planning\*

	%
<b>Pre-operatively (n=133)</b>	
At which hospital will your operation be performed?	
Public	64.7
Private	30.8
Have you been told how many days you will be in hospital?	
Yes	84.2
No	13.5
Can't remember	2.3
<b>Post-operatively (n=129)</b>	
How did you feel on discharge from hospital?	
"I felt ready to go home"	86.8
"I should have stayed longer"	10.9
"I should have left sooner"	1.6

\*Where totals do not add to 100%, data were missing

tionnaire in English ( $n=3$ ) and confusion ( $n=1$ ). Three patients had their operations cancelled, precluding entry to our study. Of 144 eligible patients, 11 declined to participate (92% response rate). There were no differences between eligible patients who agreed to participate in the study and those who did not in terms of sex ( $\chi^2_1=1.0$ ;  $P=0.3$ ), age ( $\chi^2_1=2.3$ ;  $P=0.13$ ) or symptom status ( $\chi^2_1=0.3$ ;  $P=0.6$ ). Completed pre-operative questionnaires were received from all consenting patients ( $n=133$  [100%]). As shown in Box 1, the majority of patients had their CEAs performed in the public sector ( $n=86$  [64.7%]). Half the patients ( $n=64$  [50%]) stated at follow-up that they had attended a pre-admission clinic at the hospital where they had their operation performed.

Box 1 also shows that a substantial majority ( $n=112$  [84.2%]) recalled being told how many days they were likely to be hospitalised. Patient age ( $\chi^2_1=3.2$ ;  $P=0.08$ ), sex ( $\chi^2_1=1.9$ ;  $P=0.2$ ), symptom status ( $\chi^2_1=0.001$ ;  $P=1.0$ ), whether

the patient was from an English speaking background or not ( $\chi^2_1=1.5$ ;  $P=0.2$ ) and location of operation (public v private) ( $\chi^2_1=2.8$ ;  $P=0.1$ ) were not statistically associated with recall. The median number of days patients recalled being told they were likely to be hospitalised was 3.0 (range, 1–8; mode, 3), compared with the NSW median of 4.0 (NSW Health Epidemiology and Surveillance Branch 1999/2000).

Completed post-operative questionnaires were received from 129 patients (response rate 97%). Not all patients indicated they 'felt ready to go home' at discharge (Box 1). There was no association between length of stay and whether patients stated they 'should have stayed longer' (Mann-Whitney:  $U=412.5$ ;  $P=0.78$ ). There was also no association between 'readiness' to go home at discharge and whether the patients recalled being told how many days they were likely to be hospitalised (Fisher's Exact Test:  $P=1.0$ ). Patients who attended a pre-admission clinic were no more likely to recall being told pre-operatively how many days they were likely to be hospitalised ( $\chi^2_1=3.79$ ;  $P=0.05$ ). Further, there also was no association between 'readiness' to go home at discharge and whether the patients attended a pre-admission clinic ( $\chi^2_1=0.001$ ;  $P=0.98$ ).

## GP survey

One hundred and twenty-three patients (92.5%) gave permission for us to contact their GP and provided relevant GP contact details. Five GPs were not contactable despite multiple attempts. GPs of 118 patients were contacted successfully (96% follow-up). Less than half of the discharge summaries ( $n=52$  [44.1%]) had been received by GPs within 2 weeks of the patient's CEA. Only two thirds ( $n=35$  [67.3%]) of these were rated 'very useful' or 'useful' by GPs. GPs were significantly more likely to have received discharge summaries for those patients whose CEA was performed at a public rather than a private hospital ( $\chi^2_1=13.0$ ;  $P<0.001$ ).

By contrast, 62 (52.5%) surgeons' post-operative letters had been received by GPs within 2 weeks of their patient's CEA. The majority ( $n=58$  [93.5%]) of these 62 letters were rated 'very

## 2 GP receipt of discharge summary and surgeon letter and their usefulness (n = 118)\*

		(%)
<b>Have you received the discharge summary? (n=118)</b>	Yes	44.1
	No	33.0
	Can't remember	22.9
<b>How useful was the discharge summary? (n= 52)</b>	Very useful	25.0
	Useful	42.3
	Somewhat useful	19.2
	Not useful at all	5.8
<b>Have you received a post-operative letter from the surgeon? (n=118)</b>	Yes	52.5
	No	21.2
	Can't remember	25.4
<b>How useful was this letter? (n=62)</b>	Very useful	59.7
	Useful	33.9
	Somewhat useful	3.2

\* Where totals do not add to 100%, data were missing

useful' or 'useful' by GPs (Box 2). Those 28 GPs (23.7%) who had received both a discharge summary and surgeon's letter rated the latter significantly more useful than the former (McNemar's  $\chi^2_1 = 6.1$ ;  $P = 0.01$ ).

## Discussion

Effective discharge planning remains problematic in Australia, particularly communication with GPs (Bolton et al. 1998; Harris, Giles & O'Toole 2002). In our study, 84% of patients recalled being informed pre-operatively about how many days they were likely to be hospitalised. Yet NSW Health policy requires that all patients should know this information before booked surgery (NSW Health 2001). In our study, there was no association between lack of recall of receiving such advice and obvious factors such as patient age, sex, intended hospital of admission, or whether the patient attended a pre-admission clinic. Hence our results preclude any immediate suggestions about how to improve performance.

While the majority (87%) of patients perceived themselves 'ready to go home' at discharge, our data suggest that this is not the case for all patients. Preparation through pre-admission clinic consultations does not appear to influence whether patients state they were 'ready to go home' at discharge. Further research to ascertain whether 'readiness to go home' predicts outcomes or how patients best obtain their information about expected length of stay would be of interest.

Our audit also reveals that communication with GPs is poor. Specifically, less than half of the GPs recalled receiving discharge summaries from hospitals within 2 weeks of patient discharge. Yet patients discharged from acute care after CEA are at risk of adverse vascular events and require greater vigilance with respect to their vascular risk factor management (Middleton et al. 2003). The reason for our finding that GPs were more likely to have received discharge summaries for those patients whose CEA was performed at a public rather than at a private hospital is unclear. Improving the interface between acute and primary care has emerged as a key challenge in health care administration (Oldroyd et al. 2003).

It appears that the proportion of GPs receiving timely discharge summaries can increase after workshops involving GPs and hospital staff (Mant et al. 2002). Conducted in a major metropolitan area health service in Sydney, this study demonstrated a significant increase from 2% to 26% in GP receipt of discharge summaries 8 months after the workshop. However, the absolute proportion of discharge summaries received — less than a third — remained low. Further, a comparison sample of 121 randomly selected GPs who had not attended the workshop reported a similar proportion of discharge summaries received (32%) (Mant et al. 2002).

In future, the electronic Discharge Referral System (eDRS) will replace written discharge summaries and improve communication with GPs by generating automatic electronic discharge notifications to them. Information on pathology and radiological results also will be included (NSW Health 2003b). Seven of the new area health services in NSW are committed to implementation (personal

communication, Information Management, NSW Health, Nov 2004). Increasing compliance by hospitals with the provision of a discharge summary is necessary but insufficient to ensure a 'seamless' transition from acute hospitalisation back to primary care. Curiously, our audit demonstrated significant differences between GPs' perception of the quality of information provided by surgeons in their personalised communications with GPs and that provided by hospitals through discharge summaries.

Subsequent to our audit, NSW Health developed another policy on discharge planning (NSW Health 2003a). While this policy has not been formally published, the final draft document has been distributed to all NSW area health services and is currently in use (personal communication, Primary Health & Community Partnerships Branch, NSW Health, Nov 2004). This final draft policy lists 32 'critical Must Do's' as the minimum discharge planning requirements for every patient. These include the establishment and recording of an estimated date of discharge for all admitted patients, and advising patients of their estimated date of discharge (NSW Health 2003a, pp. 5–7). Further, the policy recommends the use of a specific 4-item discharge risk screening tool (based on Thomas & Associates 1988) designed to predict patients' service needs following discharge from acute care.

A more responsive and standardised approach to discharge planning has potential to improve outcomes for patients, reduce adverse events, improve continuity of care and enhance patient safety (NSW Health 2003a). Yet there is very little rigorous research being conducted to inform decisions about effective systems and processes. Without better research, scarce resources will be diverted to unproven strategies with little objective evidence of positive impact on performance and patient outcomes. We recommend ongoing audits to measure and monitor discharge planning in various services and settings. We also recommend further work to decrease the gap between the quality of the information provided in hospital discharge summaries and that provided in surgeons' letters.

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## Competing interests

None identified.

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