Post acute care: Can hospitals do better with less?

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Abstract

Judging by reports in medical magazines and journals, ‘early discharge schemes’, better termed ‘post acute care’, are not popular with doctors. However, government policy encourages earlier discharge from hospital, so that the choice facing clinicians is to discharge patients early with support, or early without support, or deal with the consequences of length of stay overruns. Fortunately, government funding for post acute care is increasing. There is a strong rationale for post acute care based on better patient outcomes and cost-effectiveness, but these desirable results will only be achieved if scrupulous attention is paid to detail, as embodied in the 10 principles of post acute care. To function optimally, post acute care should be coordinated by the hospital which provided the acute care.

Introduction

General practitioners have begun to protest about hospitals discharging patients early, without adequate support (Bedkober 1995; Chua 1996; Forde 1996). Lengths of stay are falling throughout Australia, which means that patients are being discharged earlier. The challenge is to provide appropriate post-discharge care, which, anecdotally, is not always done. Governments in Australia have recently funded an increasing number of hospitals for schemes to support patients at home after early discharge. Post Acute Care Services at The Prince of Wales Hospital has been providing post acute care since 1989 across a range of specialities, and has been recognised as a lead hospital for post acute care and discharge planning in the National Demonstration Hospitals Program. This article describes the rationale behind ‘early discharge’ (post acute care) schemes and the methods of these programs.
What is post acute care?

Most episodes of illness have an acute phase, when the patient is most ill. If the illness is severe, or involves an operation, the acute phase should occur in hospital. This is followed by a less acute, or post acute phase, when the patient can already be seen to be recovering, but is still unwell. For elderly patients the post acute phase is often more prolonged. Post acute care is a system to look after patients during the episode of illness, after they have left the hospital. To do this successfully, preparation must start soon after admission to hospital or, at times, before admission. In some cases, admission may be avoided where the illness is less acute but the patient is temporarily acutely disabled. Immediate provision of expert multidisciplinary care and assistance with activities of daily living at home, as well as other care, can avert a previously unavoidable admission.

However, post acute care is not designed to look after patients during the acute phase of a severe illness at home. This is properly called ‘Hospital in the Home’. It is also not ongoing care, such as is provided by community nurses (for example, ulcer dressings), although it may be transitional supplemental care following an acute episode of illness before returning exclusively to continuing long-term care. Typical examples of post acute care include orthogeriatric schemes and early discharge schemes for obstetrics, among others (Brown 1990; Braveman 1995, unpublished observation).

Why early discharge?

There is a high level of suspicion amongst Australian doctors about innovations such as post acute care, which many see as a mechanism to save money, and resulting in worse outcomes for patients (Bedkober 1995; Larkins, Martin & Johnston 1995). Although hospital-based home care programs have been in existence for more than a century, and the available evidence suggests that properly coordinated systems have the ability to maintain outcomes, as well as save money, schemes which result in earlier discharge from hospital, or avoid admission to hospital altogether, are still prima facie objects of suspicion (Steel 1987; Keenan & Fanale 1989; Farnworth, Kenny & Shiel 1994; Delbridge 1995). However, care at home is, by default, becoming an increasingly used alternative, given the problems of getting patients into our crowded and shrinking hospitals (Baume & Wolk 1995). Governments in Australia have been actively encouraging the development of post acute care services both at Commonwealth (Medicare Incentive Programs and the National Demonstration Hospitals Program) and State level (Post Acute Care Program in Victoria).
Some recent large studies have clarified the reasons for early discharge. The New South Wales Nursing Costing Study examined 39 000 patient separations across eight Sydney teaching hospitals and found that during 10–35 per cent of bed-days studied the patients required minimal care which could have been provided outside of hospital (Picone, Ferguson & Hathaway 1993). For 10 per cent of bed-days, the typical pattern of care was documentation and drug administration only. Another 25 per cent of bed-days had the additional care patterns characterised by observations less frequently than four-hourly; patient education; and fluid balance chart. These startling findings are consistent with overseas studies, such as that of the Rand Corporation, which found that one in four hospital patient-days is unnecessary (Pickering 1993).

However, the savings in length of stay for many diagnostic groups can be greater than 35 per cent, due to re-engineering the process of care or changing concepts of care. For example, the length of stay in hospital after an acute myocardial infarction was measured in weeks, eight being the recommended minimum (Prineas & Lovell 1969)! We found that with the institution of post acute care in the orthopaedic department at our hospital, the length of stay for patients with fractured neck of femur fell from 27.5 days to 14 days over an 18-month period. Subsequently, the length of stay has fallen further. This is a result of intensifying the process of care, operating on the patients within 24 hours of admission, ensuring early ambulation with full weight bearing, providing active multidisciplinary treatment, preventing complications and other processes detailed below.

Some may say that in the best of all worlds patients would stay in hospital as long as they or their doctor wanted. However, this would ignore the evidence that hospital should be regarded as a treatment, with benefits and side-effects. Upon entering hospital a patient encounters complications which, if hospital were a drug, should be enough to see hospital banned. The recent Quality in Australian Hospitals Study found that for people aged 65 and over, 23 per cent of hospital admissions were associated with an adverse event serious enough to prolong hospitalisation, cause disability or death (Wilson et al. 1995). This was double the rate of people under 45. The risk of all iatrogenic complications, no matter the result, for elderly patients in hospital approaches 1 in 2, also approximately double the risk for younger patients (Fretwell 1990). The risk gradient is greater for fatal adverse events, around 20 times higher for the over 65-year-olds compared to younger patients (Wilson et al. 1995).
Principles of post acute care

Post Acute Care Services at The Prince of Wales Hospital has been operating since 1989 to provide orthogeriatric post acute care and, more recently, post acute care for respiratory, general surgery and emergency department patients. Certain principles of post acute care form the bases of our work with different departments, to a greater or lesser extent with each department. Recently we have been able to apply these principles in six other hospitals around Australia, which were selected in early 1995 as our collaborators in the National Demonstration Hospitals Program sponsored by the Commonwealth Department of Health and Family Services (see Table 1).

Table 1: Principles of post acute care

1. Early assessment of at-risk patients.
2. Active management by multidisciplinary team, including shared clinical care if indicated, for example, joint geriatrics/orthopaedic management.
4. Maintenance of patients’ mobility and physical activity at optimal levels.
5. Discharge planning commenced on admission involving the patient, relatives/carers, general practitioner and the multidisciplinary team.
6. Education and support for patients and relatives/carers.
7. Early discharge with commitment to readmit when necessary.
8. Immediate provision of expert domiciliary care and supports, namely, nursing, physiotherapy, equipment plus meals, shopping and cleaning.
9. Shared care with general practitioner.
10. Standardisation of excellence, for example, clinical pathways.

Early assessment

Early assessment means actively watching and screening for suitable patients, and monitoring the emergency department, pre-admission clinics and the wards for unexpected problems. We physically liaise with the appropriate nurse unit manager on a daily basis.
Active multidisciplinary management

This means that the multidisciplinary team does not wait passively to be consulted. There is an automatic consultation to every member of the team, but this does not mean that the patient is inundated with the same assessment by every therapist. Patients dislike being asked the same questions repeatedly. The basic assessment is done once, by whoever sees the patient first – usually a nurse – and all therapists use this information. To save time, it is absolutely vital that therapists become involved early in the admission, rather than on the eve of an inadequately planned discharge. Assessment utilises indices of function and mental status to meaningfully follow a patient’s progress and facilitate benchmarking.

Prevention of complications

Prevention of complications is fundamental to quality care, particularly of older patients, because of the previously mentioned high rates of complications. Not only are older patients at much greater risk of all complications, but side-effects are generally more severe (Wilson et al. 1995). The patient is most vulnerable to side-effects when their level of consciousness is impaired by analgesics, anaesthetic agents perioperatively or delirium triggered by the acute illness or treatment. These factors act maximally at the beginning of a surgical episode of acute care. Many of the complications are simple and avoidable, but the end result of pressure sores, thromboembolism, dehydration and constipation can be fatal for frail elderly patients.

Early ambulation

Early ambulation is essential for patients with decreased reserves of fitness (Brummel-Smith 1990). Our rule of thumb for frail elderly patients is that for every day in bed, two days of mobilisation are required. Lying in bed is a precondition for many iatrogenic complications, and yet more effort is sometimes misguided put into keeping patients in bed with cot-sides, restraints and sedatives, than in mobilising them. Operations for fractured necks of femur should allow full weight bearing the day after surgery.

Discharge planning

Discharge planning is the process of ensuring continuity of care, and the best means of decreasing the unplanned readmission rate. For non-elective admissions, discharge planning starts when the patient arrives in the hospital. It is vital to have screening mechanisms in place to detect patients in need of
support post-discharge. Some have advocated computerised screening (Gray 1994), which can certainly be of assistance, but there is no single, universally applicable formula for determining which patients require and will benefit from discharge planning (Hartigan 1987). With the increasing number of frail, elderly patients in our hospitals, the need for discharge planning is increasing and therefore we are seeing a shift from the discharge planner model, where one person has a roving commission to conduct discharge planning throughout the hospital, to ward-based discharge planning, using consultative services for more complex discharge problems (Anderson & Helms 1993).

Plans involving people require flexibility, and must reflect the needs of the patient as much as the limitations of the service. Discharge planning is partly a process of educating the patient, carers and family about what is possible, and what to expect. It is vital to deliver services that are promised. Good discharge planning will involve speaking with a number of interested parties. Communication with the patient, (often multiple) relatives, formal carers and the general practitioner is the minimum for most elderly patients. Our policy is to notify the general practitioner of the patient's admission and again when discharge is imminent. A two-way flow of information between hospital and general practitioner can minimise diagnostic and therapeutic errors and reduce duplication of costly, time-consuming and sometimes invasive investigations.

The discharge plan is developed in collaboration with the general practitioner and other community service providers who are well placed to identify supports available to the patient after discharge. The outcome of effective discharge planning should be that patients receive appropriate care, information, support and follow-up at each stage of the episode of illness.

It is important to check the patient's situation carefully. For example, it is not unusual to have patients admitted to hospital from respite care in a nursing home with an acute illness. Generally, by the time they have recovered sufficiently to be discharged, their period of respite care is over, so that they have to be discharged back to their home, with a package of supports. If it is not noted that they were admitted from a nursing home but do not have a place to go back to there, their discharge plan will be woefully inadequate.

**Education**

Education is the key to helping or empowering patients to take control of their situation and perform at their peak. Most education of elective patients should occur before admission. For an emergency patient, education of the patient and family/carers starts soon after admission to shape the patient's expectations of the
course of the acute and post acute parts of their care. Patients frequently have expectations, based on the experiences of friends or relatives in years past, of lengths of stay or patterns of care which have been superseded. For example, in our area we previously had access to a large number of stepdown/rehabilitation beds. These have now decreased, but some patients still expect some time in the rehabilitation hospital.

For respiratory patients, education is vital in preventing unnecessary readmissions. Many patients with chronic airflow limitation at best have spirometry and blood gases of sufficient severity to warrant admission at any time so, if they present with increasing breathlessness and a cough, it is virtually certain that they will be admitted. By teaching these patients responses to episodes of dyspnoea other than calling an ambulance, making sure that they actually know how to use a nebuliser and how to take a decreasing course of oral prednisone, and teaching stress management to prevent hyperventilation or the use of cigarettes as stress relievers, we have been able to decrease the 28-day readmission rate of chronic airflow limitation patients from 15 per cent to under 4 per cent.

The family plays a key role in supporting the patient at home. Educating and keeping the family involved during the period of hospitalisation is the key to ensuring their support and ability to cope effectively at home (Eldar & Eldar 1984).

**Early discharge**

Care at home is preferable because of the risk of iatrogenic complications in hospital and because, conceptually and practically, rehabilitation is best carried out at home (Grieco 1991). The home environment provides more stimuli for mobilisation, for example, feeding the cat, or walking to the front door to get the mail, than the hospital, where the physiotherapist comes 0–3 times a day. It is rare for patients to be mobilised by a physiotherapist in hospital over the weekend, although this has been demonstrated to decrease length of stay (Hughes, Kuffer & Dean 1993). At home, mobilisation does not stop over the weekend.

Early discharge is a key element of post acute care. Firstly, from a financial viewpoint, such schemes are only cost-effective if they result in a shorter length of stay, and the hospital is reimbursed on a per-episode-of-care basis, such as casemix. Secondly, decreasing the length of stay compels the more efficient performance of tasks required before discharge. For example, the patient with a fractured neck of femur will not go home on day 9 if they are not operated on
till day 6, nor if they become dehydrated and develop acute renal failure post-operatively.

The great majority of patients actually prefer to be at home, rather than in hospital, if properly supported. At home they can maintain a higher degree of independence and control over events, and they become a true partner in the healing process. This is supported indirectly by evidence in the United States, where home health care is developed to a much greater degree, that the amount of litigation is proportionately much, much lower for care at home compared to hospital care (Keenan & Fanale 1989).

**Domiciliary services**

Immediate provision of domiciliary services is a cornerstone of post acute care. In order to maximise the advantage of being at home, the supports the patient needs must be ready when the patient is ready. We have found that if the family and other informal carers such as neighbours see that we will provide immediate nursing and physiotherapy for the patient, they are happy to help out with other tasks such as shopping, taking out the garbage and doing the laundry. People who may be worried about carrying the whole burden of care are usually happy to provide a little help.

**The general practitioner**

The general practitioner is usually in the best position to manage the patient at home, with the support of the multidisciplinary team. The general practitioner usually knows the patient well and is already aware of their home situation. Any service which aims to care for people at home depends on the general practitioner. We advocate communication with the general practitioner soon after the patient is admitted, to exchange information and, at the time of discharge, to inform them and plan care at home. However, the increased complexity of patients discharged earlier from hospital necessitates longer and more complex home visits and this has been raised by many general practitioners as a disincentive to participate in post acute care (Chua 1996). We advocate a time- and intensity-graded system of Medicare rebates for home visits.

**Clinical pathways**

Clinical pathways ensure that non-dramatic but vital care is not omitted (Pearson, Goulart-Fisher & Lee 1995). There has always been a turnover of interns, residents and registrars in teaching hospitals. Formerly, the ward nurses and nursing unit managers were repositories of wisdom on how-things-are-done-
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here. Recently, with increasing use of agency nursing staff, who are unfamiliar with the ward routines, and nursing unit managers appointed because of management rather than clinical skills and experience, this reservoir of knowledge has been depleted. Written guidelines on each step of the patient’s course, for all involved, incorporated in the patient’s notes ensures that important treatment is not omitted. Optimally, the clinical path should follow the patient throughout the episode of care, from pre-operative assessment in clinic, for elective surgery patients, through admission, discharge and post acute care at home. Clinical pathways do not reduce care to a putative lowest common denominator. Changes can be made to suit individual patients, but such variations are recorded in the patient’s notes.

There is much discussion about whether post acute care is best carried out by staff recruited from the hospital or the community; and whether it is best to have a hospital team outreaching or a community team liaising. Both groups need to be trained to meet the needs of providing post acute care. Staff from the hospital require new skills to provide community care and those from a community health background require training in acute care. On balance, the advantage lies with the hospital outreach model as it is more likely to win the trust and agreement of the clinicians whose patients are to be involved in the scheme, and nurses recruited from inpatient units have a large advantage. Any post acute care scheme must have a commitment to readmit the patient should problems arise, and a hospital-based team will more readily achieve this. Finally, the development of a seamless service, starting in the preadmission or outpatients clinic and continuing through the admission to the post-discharge period, needs a constantly available team that is responsive to the dynamic, frequently shifting hospital environment.

The community team does not have an advantage from already knowing the patients, because only a small minority of the patients are registered with community health. Even in an orthogeriatric service, where most of the patients are frail elderly, we found that only around 5 per cent are known to community health teams.

Conclusion

Lengths of stay are reducing throughout the developed world. It is incumbent upon hospital clinicians to ensure that patients are not sent home without adequate preparation and support. This preparation and support is not complicated, but must be done systematically. Post Acute Care Services at The Prince of Wales Hospital provides a model of such a system and, through the
National Demonstration Hospitals Program, we have seen that this system can be translated to other hospitals. In some form, it is probably necessary in every department of every acute hospital. However, new services must be properly and rigorously evaluated.

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