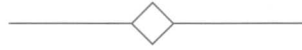


COMMENTARIES



Episodes of care: Should we have them?

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Abstract

In this paper the authors discuss the introduction of 'episodes of care', a new system for monitoring hospital-linked patient care services. They consider the proposal in the context of clinical, financial and technical frameworks. The authors conclude that health planners are likely to benefit from the introduction of this form of monitoring. The proposed change would also allow more accurate analysis of the true cost of interventions. However, it is likely to require significant investment in information technology and there may be loss of patient confidentiality.

Introduction

For the last two decades at least, a constant factor in the Australian health care system has been the presence of change. The Australian Institute of Health and Welfare detailed many of these changes in its publication *Australia's Health 1994* (1994, chapter 1). These significant changes include an increase in life expectancy, increased rates of hospital admission, increased numbers of consultations with medical practitioners, and a substantial rise in per capita health expenditure from \$866 in 1982–83 to \$2049 in 1992–93 (Australian Institute of Health and Welfare 1995, p 5). Palmer and Short (1994) are among others who describe in detail the recent changes to the Australian health care

system. However, the purpose of this paper is not to update the record of changes to the health care system, nor to discuss the analysis already done.

Although there have been significant changes to the health care system over the last 10 years, these changes have mostly been incremental, rather than radical. Some commentators suggest that further incremental change, particularly for funding, is not only undesirable, but also unsustainable (Walker 1995).

In response to mounting concerns about the sustainability of the existing health care system, Australian governments are considering introducing a significantly different approach to the classification and funding of health services (Council of Australian Governments 1995, pp 3–4). Change of the order being proposed will inevitably lead to changes in the manner of service delivery itself. This paper focuses on one aspect of these proposed changes – the concept of ‘episodes of care’.

The debate about episodes of care has not gathered momentum in Australia. This paper examines some of the issues that should be considered if episodes of care are to be introduced into the Australian health care system. We suggest that any shift to the concept of episodes of care should simultaneously (a) be relevant to clinical practice, (b) improve administrative monitoring and control and (c) assist planners by allowing better correlation of health care inputs and patient outcomes.

To enable the achievement of these requirements, we argue that the system introduced must allow for continuity of data collection as patients move between care providers, with those data being of sufficient detail to allow for the correlation and analysis of cost and outcome.

Whether Australia would benefit from the introduction of a monitoring system based on the concept of episodes of care remains an open question. While it would give planners better information on where services are used and how service provision could be improved, the cost would be significant in terms of investment in information technology and reduction of patient anonymity. It is also unclear, from the information currently available, what impact the changes would have on patient outcomes.

Definition

‘Episode of care’ is the emerging description of the envelope in which to place a bundle of patient services. The current use of the term suggests that this bundle represents a logical aggregation of patient care activities that will allow more accurate description and costing of health services. It may also help to minimise the cost-shifting that can occur when different funding formulas relate to

different aspects of care for a single person. In Australia, this art of cost-shifting is perhaps best displayed by the restructuring that has occurred in some public hospital outpatient departments. Privatisation may be another form of cost-shifting, and this particular form has already been identified as unacceptable to the Commonwealth Department of Human Services and Health (Ferrari 1995). Although the reasons for these organisational changes may be debated, the frequent outcome of fragmentation of services is the shifting of costs from one system (often State-funded) to another (often Commonwealth-funded). By clumping related services into one clinically linked service unit or 'episode', it may be possible to develop more rational approaches to resource allocation for expensive hospital-related services.

Although the concept of episodes of care is not considered part of the casemix collection, it may be useful to compare its definition requirements with the categories being developed in casemix. It has been generally accepted that casemix classifications should be clinically meaningful and resource-homogenous (Eagar & Hindle 1994, pp 1–2). Should similar definition requirements apply to episodes of care? Resource homogeneity has not been a requirement for a number of widely used clinical indicators. For example, 'length of stay' is a widely used measure of hospital activity, but implies no sense of clinical homogeneity. On the other hand, length of stay does have a widely accepted clinical meaning, representing the period of resource-intensive treatment requiring close supervision and monitoring. If the concept of episodes of care is to be a useful indicator of clinical activity, it is likely that it must have some clinical validity. If this concept does not have relevance to bedside clinicians, there is a very high risk of it not achieving any acceptance by those clinicians, which in turn will mean it is unlikely to lead to any changes in clinical practice. There seems little point in introducing a new measurement concept if it does not provide a new framework to consider and challenge past practices, and perhaps change current practices.

Do we need a new framework from which to consider resource-intensive health services, particularly inpatient services? Is there any need for change? We believe that the answer to both those questions is 'Yes'. The pressure that health service delivery systems are currently suffering has been widely described, and the constraint on funding is probably accepted, if not agreed, by most (Bessler & Ellies 1995). An important question for health policy planners is the extent to which any new system or redesign might impede, rather than enhance, the effective delivery of high-quality health care. Frameworks that allow the current system to be viewed differently have the important advantage of allowing new discussion to occur without first changing clinical practice. This reduces the risk

to the client/patient while still allowing for, and even encouraging, challenge and change to the system. Viewing current services from the perspective of episodes of care may allow for a sufficiently different perspective which, in turn, might lead to altered and improved clinical service patterns and health care outcomes.

Another major impediment to discussing episodes of care in Australia is the lack of agreement about the term. The assumed meaning of the term in the Australian context seems to be the aggregation of services and associated elements of care associated with one primary diagnosis. In its discussion paper on this topic, the Commonwealth Department of Human Services and Health speaks of '...an "episode" of treatment, often involving three phases: preparation, delivery of a procedure and recovery...' (Jackson 1995, p 13). It is not clear whether an episode in this context would include the treatment of the complications that arose from the initial illness. Nonetheless, the important conceptual change is the aggregation of services, rather than the 'unbundling' that has been encouraged by payment systems based on items of service delivery.

In the United Kingdom, a somewhat different flavour is attached to the word 'episode'. In 1988-89, the National Health System administration introduced new definitions for its hospital data collection. Included in these was the term 'consultant episodes' (Radical Statistics Health Group 1995). Each time a patient changes consultant or specialty within one hospital stay is counted as a completed consultant episode. Thus one hospital inpatient period may include a number of completed consultant episodes. Within the United Kingdom health service, 'episode' can be associated with the unbundling, rather than the aggregation, of services related to one diagnosis in one patient in one period of time.

The United States is also experimenting with the concept of episodes of care. The literature there relates mostly to the analysis of Medicare-related data sets. As with Australia, the United States concept appears to include three components of a hospital-related care event: related care events before the index admission; the admission itself; and related events after the admission. Significant effort is being invested in analysing the massive Medicare data banks of the United States. This is being undertaken by a number of Patient Outcomes Research Teams. The methodological difficulties these teams are facing in defining an episode of care is described by Mitchell et al. (1994). In that paper the authors look at a number of Patient Outcomes Research Teams and compare the definitions used by them to describe one 'episode'. One is struck by the lack of consistency in the definitions.

A slightly different approach was taken by Mitchell (1993) when she looked at the trends in physician inpatient spending for nine states in the United States. In that paper the definition of an episode of care was:

Inpatient stay, plus
7 days prior to admission, and
30 days post-discharge.

While this definition has the appeal of simplicity, it does not allow for admissions for other, non-related diagnoses immediately before, or after, the index admission.

The discussion that has occurred in Australia to date has been more oriented to financial and organisational control issues of episodes of care, rather than clinical considerations (Jackson 1993; Duckett & Jackson 1993). We have in this paper already identified various interpretations of the terminology in other countries. We believe that any useful discussion of the advantages to the Australian health system of introducing the concept of episodes of care will first require a shared understanding of the way in which the phrase is used and its practical meaning in the setting of care delivery. We accept that it may not be possible to settle on one definition that satisfies all possible points of view. However, we believe that the single most important determinant of whether the term 'episodes of care' (or an alternative term covering the issues discussed in this paper) is adopted purposely in Australia will be the extent to which the phrase has use and relevance to those undertaking the delivery of care. Academic purity must be tempered with functional utility, or there is a danger of the adopted phrase becoming inapt.

Use of 'episodes of care'

'Episodes of care' can be used in a number of contexts or frameworks; clinical, financial and technical are three such frameworks.

Clinical framework

The concept of episodes of care has uses for the clinician. Quality audits that look at the total spectrum of the intervention are far more likely to identify difficulties than are systems that break the care into component parts. The risk with the latter is that no-one will willingly pick up responsibility for problems that may be partially attributable to other providers. Is the surgeon or the anaesthetist responsible for the post-anaesthetic chest infection?

It clearly is desirable that the patient be treated as a whole at any moment in the care path. It is also desirable that the care plan be integrated. Regarding particular patient interventions as part of a larger episode means that there is increased likelihood of the total pattern of care being reviewed, rather than its individual components.

In a clinical framework, an episode of care is that group of patient services that is related to a single pathological event or underlying illness. A patient who is admitted with multiple trauma could undergo resuscitation in the emergency department, transfer to theatre and a post-operative surgical ward, transfer to a medical ward for management of the head injury, and then on to a rehabilitation ward. Following formal discharge, the outpatient services arising from the admission would also be considered part of the treatment bundle. All of this could be regarded as a single episode of care.

Financial framework

The application of the concept of episodes of care for financial analysis is obvious. The purpose of all interventions in health services is either to improve the health of the patient or to reduce the suffering. For most problems requiring inpatient care, many service items are required. With the pressure to move patients out of the hospital setting, more preliminary and follow-up care is being delivered in the ambulatory setting; that is, in the outpatient department of the hospital or through community-based providers. While this transfer of care may be clinically desirable, it does have the effect of transferring costs. If the total cost of the 'episode' can be determined, then true efficiencies can be separated from cost transfers. It may be that for some interventions the total cost of treatment is less if more of the treatment is delivered as an inpatient. For example, early discharge of some surgical procedures might lead to a greater incidence of wound breakdown and extended outpatient treatment (or even readmission).

The concept of episodes of care has clear advantages in the analysis of the true and total cost of treating a specific problem and its consequential effects.

Technical framework

There are technical problems in introducing episodes of care in Australia as there is currently not one recording system that spans the major service providers. From a medical perspective, the Health Insurance Commission, through its Medicare data collection, captures most of the medical services delivered in the community and private hospitals, but only some of the services delivered in public hospitals. Likewise with pharmaceutical benefits, the Pharmaceutical

Benefits Scheme could catch private sector prescribing, but public hospital prescribing would not be captured under the present data collection systems.

All States now have sophisticated data systems for their public hospitals, but even these are unlikely to collect comprehensive episodic data in any reliable way. There is largely no common unique patient identifier used between hospitals. Even hospitals within the one administrative group can use different patient registration numbers.

The State-based information systems at this stage would mostly be unable to provide patient-linked costing for most aspects of hospital admissions. If it was planned to use episodic data for cost analysis, massive investment in hospital costing capabilities would be required.

Finally, there is presently very little crossover of patient data between hospitals and community-based providers. Most hospitals do not share their patient databases with community-based providers such as home nursing services, or other community-based support and care providers. There is almost universally no access by community-based medical providers to hospital patient data sets. Without this linkage, it would not be possible to identify the full scope of services offered to the patient outside the hospital setting.

In 1987 the Australian Government proposed the introduction of a national unique identifier, the Australia Card, but chose not to proceed, probably because of strong public opposition (Starke 1988; Adams 1988). It seems that the concept of a transportable unique identifier is not something the Australian population feels comfortable with. At this stage, the Australia Card is not likely to be back on the political agenda for some time, and there are limits on the extent to which organisations are able to share computer-based information on common clients. In that context, routine data collection on episodic care would be limited to care delivered from one provider. All current definitions of episodes of care relate to hospital-based services. It is therefore likely that the data collection would be limited to patients receiving all of their care from a public hospital, possibly a single public hospital. This would be a heavily biased sample, and the usefulness of the data could be challenged.

Systems for recording

Inpatient care

The Australian national diagnosis related groups (AN-DRGs) are probably quite sufficient for recording the inpatient component of any episodic care measuring system. This system is clinically meaningful and is now widely understood and widely used in all States. For acute inpatients, the AN-DRG commences with admission and ends with discharge. These are well-defined and widely used beginning and end points and allow AN-DRGs to adapt well to any episode of care system that includes pre-admission and post-discharge care. AN-DRGs would be used for the acute inpatient component of the episode and other recording systems would be used for the non-inpatient component of the episode. Also, there are no theoretical impediments to this style of combined system being used by both private and public sector providers. It is a widely used, well-defined and standardised classification system for acute inpatients.

Classifications for other non-acute inpatient services are currently being developed and refined. Present indications of the general trends in these systems suggest that they too would incorporate easily into an episodic classification system.

Outpatient services

The choice of which outpatient recording system to use is not as straightforward as the choice of AN-DRGs for acute inpatients, as there are a number of difficulties with linking inpatient and outpatient components of care into a single episode. Some of these difficulties were discussed above in the context of technical considerations. There are already a number of non-inpatient classification systems in use, and more are currently being tested. Duckett and Jackson (1993) have discussed the advantages and disadvantages of various approaches to classification of hospital-based ambulatory services. For the concept of episodes of care to be useful, care delivered in the private and non-hospital environments would have to be included. The first requirement is an identifier that links the services in each area to a single consumer. Whether such an identification system would be acceptable to the public of Australia is a moot point.

The relative advantages and disadvantages of various classification systems are relevant to an episode of care framework only if they can be used. The discussion of the relative merits therefore should await the acceptability of such systems to

the public. The real constraints here are not likely to be either technical or clinical, but acceptance by the people of Australia.

Conclusions

If the concept of episodes of care is to have any useful place in the analysis of health care systems, firstly, it must be defined in such a way that current data collection will allow for identification of the commencement and completion of an episode. Secondly, we believe that the definition should have relevance to the clinical care process if it is to have any impact on the broader questions of pattern of service delivery. Finally, it is desirable that the definition can be applied using currently collected data. If data beyond that which is currently routinely collected is required, the application of the concept of episodes of care will be limited to those institutions having more sophisticated information systems, or will require significant investment in data systems. Defining episodes of care in such a way that the concept cannot be applied in the normal hospital setting means that the concept cannot be applied as a data analysis tool for broad hospital populations in Australia. This will mean that using episodes of care as a measurement instrument in Australia will involve some trade-off. Simpler definitions with prescribed pre-admission and post-discharge periods limiting an episode will allow for a less expensive data collection system, but at the cost of less precise analysis of service delivery patterns. For example, if the definition requires individual clinical commentary in order to identify precisely the pre-admission and post-admission services delivered, then broad brush analysis will not be possible using currently available patient classification and data collection systems. The simpler and less precise use of number of days before admission and after discharge clearly allows analysis based on currently collected data sets including the date of admission and discharge.

However, unless the definition has some relationship to the clinical treatment process, it is difficult to see what application it would have in analysing hospital practice.

The difficulty is in drawing the line. What of the patient with the chronic illness that leads to recurrent hospital admission? What of the multiple trauma patient who suffers residual disability requiring continuing ambulatory care? It could be reasonably argued that the only true definition of an episode of care is one that starts with prenatal care and concludes with death. While this would be the ultimate in inclusive definitions, it may not be helpful in providing a basis for funding and monitoring because of the long lead times for completion of a defined episode.

The concept of episodes of care offers a powerful analytical tool for the study of health service delivery patterns and may lead to improvements in clinical effectiveness, efficiency, and perhaps even the equity of service access. But it is not without cost, both in investment in data collection facilities and the possible degradation of patient confidentiality. It is important that health service providers undertake an informed debate on this issue, with the interests of the patient being the primary outcome sought.

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