

Problems in counting and paying for multidisciplinary outpatient clinics

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Abstract

Policy-makers have always found it problematic to formulate fair and consistent counting rules for public hospital outpatient activities. In the context of output-based funding, such rules have consequences which can affect patient care. This paper reviews the rationale for organising multidisciplinary clinics and reports on a series of focus groups convened in four Melbourne teaching hospitals to consider funding policy for such clinics. It discusses issues of targeting outpatient services, along with implications for payment policy. It evaluates counting rules in terms of intended and unintended consequences in the context of Victoria's introduction of output-based funding for outpatient services.

Introduction

Block funding for outpatient services, the current funding basis in Victoria and most other Australian States, provides few incentives (or disincentives) for hospitals to organise clinics on a multidisciplinary basis. Counting rules for occasions of service restrict multiple counting of such visits, the definition of an 'occasion of service' being a contact with a 'functional unit' of the hospital (Health and Community Services 1995) – although this definition could still be used to justify separate counting of, for example, a contact with medical practitioners in the endocrinology unit of the hospital and a contact with a nutritionist from the dietetics unit in the adjoining consultation room.

When payment incentives are attached to activity measures, however, the definition must be more rigorous, and the rates of payment must be based on

an agreed common measure of resource use. Multidisciplinary clinics present problems on both these dimensions. In inpatient care, all activities undertaken on behalf of the patient are considered to be counted and covered in a single admission characterised by the diagnosis related group.

Outpatient care, precisely because patients are 'ambulatory', can be disaggregated into multiple visits, even when there is a high level of consensus about the appropriate constituents of patient care. In many areas of hospital outpatient activity, such a consensus about optimal care processes does not exist, making comparisons across hospitals (and measurement of resources used) difficult. In the face of new counting rules and differential payment relativities, hospitals face substantial incentives to change the way in which clinics are organised and/or reported.

This study was undertaken on behalf of the Victorian Department of Human Services to identify problems which arise from multidisciplinary clinics in the context of the department's proposal to fund hospital outpatient services on an output basis from July 1997, and the Metropolitan Hospitals Planning Board's endorsement of continuing public provision of multidisciplinary clinics (Metropolitan Hospitals Planning Board 1995; O'Connell & Sharwood 1996). It reviews the medical literature on the rationale for multidisciplinary approaches to outpatient services, and reports on discussions from a small series of focus groups convened in four Melbourne hospitals to consider issues of funding policy for multidisciplinary clinics. While the paper is Victorian in focus, the problems identified with regard to counting and classifying outpatient care are common to public hospital systems in all States, and issues of the complementarity or substitutability with services funded under the Commonwealth Medical Benefits Schedule are also shared by all States.

Study approach

Published articles indexed on Medline between 1991 and 1996 (inclusive) were reviewed using search criteria identifying outpatient or ambulatory services and the term 'multidisciplinary'. An overview of relevant papers is provided below.

In addition, meetings with staff of four metropolitan Melbourne teaching hospitals were arranged to discuss the issue of multidisciplinary clinics and alternative funding models. Two hospitals were selected which have deliberately organised their outpatient clinics to facilitate interdisciplinary and multidisciplinary consultation, both of which were involved in the 1996 Non-Admitted Patients Relative Resource Weights Study (NAPS) (Jackson & Sevil 1996). Two additional hospitals were selected, neither from the NAPS sample,

which conduct a mixture of single and multidisciplinary clinics. Efforts were made to involve a range of medical specialists and allied health professionals, with wide representation being achieved in three of the four hospital focus groups.

Consulting four to ten key hospital staff at each hospital, we led a focused discussion on:

- the philosophy which underpins this form of clinic organisation
- the range of clinic types encompassed (that is, the different definitions of 'multidisciplinary' which may exist)
- the 'investment' which different professional groups or clinical specialties may have in single versus multidisciplinary clinic organisation
- the impact of the current block funding system and likely effects of alternatives, including casemix funding.

The purpose of the study was not to be able to report on a representative sample of hospitals or clinicians, but rather, to better understand the clinical and other reasons why hospitals might organise multidisciplinary clinics, to investigate the range of services currently provided with some claim to multidisciplinary status, and to involve clinicians and administrators in a discussion of the incentives inherent in alternative funding models. The theme sheet used in these discussions appears as an Appendix.

Literature review

A recent paper by Schipper and Dick (1995) in the *Lancet* makes a persuasive case for the multidisciplinary clinic in the care of patients with complex medical problems. They argue that 'compassion is often lacking in the traditional model of medical care ...when the patient is progressively fragmented while coursing from one specialist to another', yet, 'for complex problems, the knowledge base and treatment mix are too broad and labile for one person to encompass'. Stressing the importance of formulating a comprehensive plan amongst a range of specialists (medical, nursing, psychosocial and spiritual), they conclude that 'the multidisciplinary clinic provides a model wherein if one person cannot encompass all, one integrated team can'.

The international medical literature reveals two broad groupings of studies undertaken with a focus on multidisciplinary practice in outpatient settings. The first are studies which demonstrate (or hypothesise) patient-level clinical improvements attributable to a multidisciplinary model of patient care, and the second relate to indirect and/or organisational benefits of this form of outpatient

service. It is notable that studies of multidisciplinary care reviewed here deal primarily with services for patients with chronic health problems, or complex psychosocial problems with a medical component. The largest number of papers were published in nursing journals, with a marked emphasis on nurse practitioner roles.

Multidisciplinary teams have been shown to improve clinical outcomes when compared with usual care in reducing low-density lipoprotein cholesterol levels (Schaffer & Wexler 1995); in dealing with nonorganic failure-to-thrive syndrome in children (Bithoney et al. 1991); in reducing the rate of lower limb amputations amongst renal transplant patients (Foster et al. 1995); in improving treatment outcomes for non-healing leg ulcers (Steed et al. 1993); and in treating chronic pain, especially non-surgically treated lower back pain (Tyre, Walworth & Tyre 1994). Sufficient clinical trials of multidisciplinary care in pain management were available for a meta-analytic review of the outcomes for this form of care (Flor, Fydrich & Turk 1992).

In addition, while no empirical evidence is presented, a case has been made for the clinical value of multidisciplinary treatment in the following areas: rheumatology (Ryan 1995); children on peritoneal dialysis (Harvey et al. 1996); HIV/AIDS (Satterwhite et al. 1991; Samet et al. 1995); chronic wound care (Ratliff & Rodeheaver 1995); myofascial pain syndrome (Auleciems 1995); breast care (August et al. 1993); cancer screening (Johnson et al. 1993); and saliva control/drooling (Reddihough, Johnson & Ferguson 1992).

Mechanisms by which improved patient outcomes are achieved are not always well delineated, but in general relate to better patient compliance, better coordination of care (usually attributable to better communication amongst providers of care and more consistency in communication with patients), more attention by providers to quality of life issues (emotional state, sleep patterns, family relationships), and best use of clinical expertise in areas of professional overlap (an example is in the treatment of non-healing wounds where vascular surgeons, dermatologists and plastic surgeons each provide care, but where *combined* expertise may be necessary for optimal recovery for at least some patients).

The papers reviewed also highlight patient benefits which are not directly related to clinical outcomes. These included increased patient convenience (Haig et al. 1994; Ratliff & Rodeheaver 1995); better rate of attendance at clinics (Banahan et al. 1994), and better training of resident medical officers in both clinical management (Schipper & Dick 1995; Harvey et al. 1996) and in communication skills (Weinsier et al. 1991; Nielsen, Kiley & Rosa 1993).

Organisational or system benefits claimed for multidisciplinary care included shorter post-operative inpatient stay (Banahan et al. 1994); greater flexibility in staffing (Hollenberg 1996); greater ability to respond to new health challenges (HIV/AIDS) (Satterwhite et al. 1991; Samet et al. 1995); more opportunities for formal quality improvement activities (Cornell & Kitsen 1995) and, in at least one study, financial savings to the institution (Hylka 1994). Schipper and Dick (1995) argue that while start-up costs for a multidisciplinary approach may be high, 'the end result is efficiency (fewer patient visits over the trajectory of an illness), patient satisfaction, and a culture of comprehensive management, inquiry, and progress'.

Structured discussions with hospital staff

In all but one of the four hospitals where meetings were held, background information was precirculated to participants. These included extracts from the 1995 NAP study, and a covering letter to the hospital outlining the proposed discussion areas. These were organised into the four broad headings noted above. Participants were given an undertaking that the meetings would last only one hour.

After introductions, the researchers briefly summarised the 1995 and 1996 studies of non-admitted patients undertaken by the Centre for Health Program Evaluation (Jackson & Sevil 1996; Jackson & Sevil 1997), and the use of the relative resource weights proposed for funding by the Victorian Department of Human Services in 1997. In one of the four meetings, participants chose to focus on broader payment policy questions, with relatively less time spent specifically on issues of multidisciplinary practice.

Philosophy

It was anticipated that participants in the structured discussions would focus on rationale for multidisciplinary clinics similar to those elucidated by Schipper and Dick in the *Lancet*. The discussions, however, revealed the ways in which the complex policy environment influences organisational innovation and development, including the nexus between general and specialist medical practitioners and between the public and private sectors.

The way in which clinic structures had developed in hospitals also influenced participants' thinking about the issue. The two hospitals which had deliberately embraced forms of multidisciplinary organisation could articulate more clearly their rationale for doing so. Participants from the other two informant hospitals

stressed the more ad hoc basis on which multidisciplinary structures had developed. These included strong professional interests or specific training on the part of allied health staff in a particular medical discipline, relative availability of inpatient and outpatient allied health professionals, and/or identification of new interventions (for example, stomal therapy) which required both medical and allied health components to care.

All groups readily identified patients with complex chronic conditions as the key patient groups for whom multidisciplinary care had advantages, although short-term rehabilitation following surgery and some forms of screening/diagnosis performed by allied health staff were also noted as requiring the involvement of multiple disciplines. The emphasis on chronic conditions was noted, both on grounds of patient convenience and on the greater need for coordination and care planning for these patients.

It became clear that the extent to which hospitals deliberately targeted their outpatient services to particular patient types was one component of the decision to increase the proportion of multidisciplinary clinics. Participants stressed that controversies about the proper role of outpatient clinics (as supplements or complements to private, fee-for-service medical consultations) as well as issues of optimal clinical organisation and patient convenience are important in considering the question.

Targeting

Prior to the introduction of Medicare, outpatient departments were provided using honorary medical officers who provided free specialist medical care for the poor in exchange for the right to admit private patients to the hospital. This was often the only access low income people with chronic or complex conditions had to costly private specialist care.

As allied health disciplines were accepted into the inpatient therapeutic environment, these disciplines were introduced into the outpatient department as well. The introduction of Medibank and, subsequently, Medicare, increased access to specialist medical care, but not to allied health services, and not to medical specialties where bulk-billing rates are low and large co-payments the norm.

Some hospitals have sought to target their services more specifically to complement availability of services through the private (Commonwealth-subsidised) sector. Targeting is done on at least two dimensions as illustrated in Figure 1. In this figure, the vertical dimension represents the balance between

assessment and management (A, B) and the horizontal dimension represents whether or not a hospital selectively accepts referrals (C, D).

The first targeting strategy is to assume an assessment and consulting role in support of general practitioners (A). This entails a high proportion of once-only specialist assessments, with referral back to general practitioners for ongoing management. The second approach is to deflect most referrals to private specialists (C), in order to focus the effort of the outpatient department on providing care for complex patients whose care could not be managed in the private sector, and those who require supports not generally available in private consulting rooms, for example, interpreters (Cells AC and BC).

By contrast, hospitals which continue to offer outpatient services in the traditional (untargeted) way accept all patients referred for care (D), and continue to take responsibility for ongoing management of chronic conditions (B). Both targeting strategies, and particularly their interaction (Cell AC), have implications for funding policy which are considered below.

	Primarily assessment (high % new patients) A	Assessment and management (high % review patients) B
Selected complex cases C	AC	BC
All referred cases D	AD	BD

Figure 1: Strategies for targeting outpatient services

Definitions of multidisciplinary care

Six models or variants of multidisciplinary care emerged from discussions in the four hospitals. The most common across all hospitals is a clinic providing specialist medical care, with one or more allied health professionals rostered to the clinic. Nutritionists, physiotherapists, occupational therapists, speech pathologists, social workers, orthoptists and nurse practitioners were specifically

mentioned. The second model is closely related to the first, but with allied health professionals 'on call' from other duties rather than specifically rostered to the clinic.

A third model involves multiple medical specialists rostered to a single clinic, with ad hoc cross-referral of (or professional consultation regarding) complex cases. Such internal referrals are not structured around a treatment protocol, but are made when judged appropriate by the attending clinician. These multi-medical-disciplinary clinics might also have allied health professionals either rostered or on call as above, a fourth variant.

The fifth model described is organised around standard protocols which ensure that patients at a particular stage of the treatment process see a prescribed set of health professionals, *seriatim*. Thus new patients to a spina bifida clinic would be booked to see both the urologist and the physiotherapist.

The sixth and final model described is the most intensive, with patients (and sometimes family members) involved in a case-conference format consultation with a number of medical and allied health specialists meeting to discuss issues of clinical management. This model was noted as having developed particularly to provide outpatient care for children with multiple disabilities.

Each of these models implies different counting rules and other regulations if they were to be funded on a throughput basis, and could be predicted to stimulate different organisational responses to casemix funding. These are discussed below under 'Financial incentives'.

Professional 'investment' in multidisciplinary care

Participants in the four discussion groups generally dismissed the suggestion that support or opposition to multidisciplinary practice styles was related to professional training. Factors such as the nature of the clinical problems encountered were seen to be more influential with individual providers and with sponsoring hospitals in determining the mix of disciplines involved in patient care. For example, the complex needs of children with multiple disabilities were cited by paediatricians and allied health workers as the principal reasons for organising multidisciplinary clinics for this patient group.

Specific training or a strong interest on the part of an allied health provider in a particular condition were also cited as motivating factors for the involvement of professionals from a particular discipline. In a number of examples provided, this pattern of multidisciplinary care was acknowledged to be distinctive to a particular clinic or hospital.

Financial incentives

The final topic raised in discussions with administrators and clinicians was the effect of financial incentives of different payment mechanisms on the provision of multidisciplinary care. Participants were invited to discuss how block or historical funding might have shaped service provision, and how a throughput-based funding system might change current arrangements.

Because historical funding has been the norm for most of these professionals' working lives, they were not able to disentangle effects of the funding system from other issues of organisation and management. Most observations about block funding were made in contrast to private fee-for-service practice. Some participants remarked on funding shortfalls and on the current system's unpredictability in getting access to needed allied health staff. Unpredictability was associated with under-funding of specific disciplines (relative to perceived need), varying emphasis on inpatient and outpatient roles, and allied staff interest in particular clinical conditions and problems.

Other participants favourably compared hospital-based practice to private practice, noting that some patients 'could not be seen' in private practice because they required costly allied health intervention alongside medical management.

Participants' evaluation of casemix-based funding was linked to a number of the issues raised earlier in discussions. These included the impact of targeting on outpatient services; the counting of encounters when more than one professional group is involved; approaches to auditing of multiple professional encounters; and the types of allied health practitioners who might be separately counted and/or funded.

The first of these issues was a concern raised by hospitals which target their outpatient services about the effect of a payment system which did not reward targeting. They were concerned that an average per case payment (estimated across hospitals which may or may not target outpatient services) would create incentives for their hospitals to return to provision of untargeted services. They argued that hospitals which target their services to minimise routine management and limit consultations to the assessment role are more costly per case because these cases require both longer consultation times and more associated diagnostic services. In their view, the more hospitals undertake routine management of uncomplicated patient care, the lower the proportion of these higher cost encounters in the hospital's casemix, and the more 'profit' available from an undifferentiated per case payment.

The selection of referred patients is argued to be more costly, as one criterion for accepting a referral is a judgement that the patient would be 'too costly' to be adequately managed in private rooms under the Commonwealth Medical Benefits Schedule payment. When patients require multidisciplinary care, especially care involving allied health professionals not covered by the Commonwealth Medical Benefits Schedule, they have a higher average cost than unselected patients. Selection, per se, would not lead to higher costs, as it would also be feasible for hospitals to 'select' (or encourage) referrals which they predicted to be lower cost when compared with an 'all-comers' policy.

While it is unlikely that any hospital is a pure type, Figure 1 illustrates the interaction of these factors, with hospitals pursuing the strategy represented by Cell AC incurring the highest costs. Hospitals with a preponderance of Cell BC or Cell AD clinics would incur intermediate costs, and hospitals operating on the historical model of ongoing management of all referred cases (Cell BD) likely to have the lowest average costs.

Resolution of this issue lies beyond the scope of this more limited discussion of payment approaches for multidisciplinary clinics. Ultimately, policy must decide how the private fee-for-service and the public specialist outpatient clinics are to be harmonised. Arguments for targeting rest on a notion of the public hospital system as a residualist system, or 'safety net', for cases too complex or costly for the private system to easily accommodate. The alternative view is that the public system is universalist, and legitimately open to all who choose to use or provide this form of care. The issue is further complicated by debates about whether continuing management of chronic medical conditions is best coordinated by general or specialist practitioners.

Counting of multiple encounters

Payment policy for multidisciplinary clinics arises in relation to these issues when clinics deliberately attract the most complex patients and structure their services to provide access to the multiple professionals who may be necessary to their care. This raises the second issue of importance in discussions with the hospitals: How should multiple consultations be counted and reimbursed? Three approaches were identified.

The first approach is to 'bundle' such services, on the same basis that ancillary diagnostic services in Victorian hospitals are proposed to be bundled. All visits (diagnostic, medical and allied health) within a specified window of time might be bundled for a single payment, or only diagnostic and allied health visits, with a new medical consultative visit establishing a new encounter for payment

purposes. This counting rule creates strong incentives for hospitals to designate case managers for each patient and/or organise utilisation review activities to monitor patterns of care for groups of patients. It encourages clinicians to periodically review the resource implications of different patterns of care against the set price offered for providing the bundled service.

It has the disadvantage, however, that it might discourage the provision of necessary care for complex cases, or encourage hospitals to organise complex care as a series of individual consultations spaced to maximise reimbursement (for example, just beyond the current 30-day payment window). It has the additional disadvantage that it would unfairly penalise hospitals when patients required multiple unrelated medical encounters.

The second approach is to separately count and reimburse each consultative/non-diagnostic encounter. This has the advantage that it does not encourage serial appointments with multiple specialists, and does not penalise hospitals providing multidisciplinary clinics. However, this rule is also vulnerable to gaming, with hospitals artificially organising clinics to provide opportunities for multiple, marginally necessary consultations with other specialists, and/or designating current staff (clinic nurses, for example) as separate consultants.

The third approach is the separate counting and reimbursement discussed above, but only for booked appointments. This approach has the advantage of providing documentation of activity which can be more easily audited and verified by funding authorities. It has the disadvantage that it may still be 'gameable' (if hospitals were prepared to distort their booking system to maximise payment). More seriously, it might discourage current 'on call' arrangements used in clinics which are intermittently multidisciplinary, that is, where the decision to refer for some forms of consultation (typically, allied health services) is made on the day of the specialist medical consultation, with on-call staff rearranging other duties to see clinic patients as required.

If the 'booked appointment' approach to counting of encounters were adopted, hospitals which use 'on-call' allied health staff for medical clinics would be likely to reconsider these arrangements. In some cases this would lead to formalised care protocols which specify in advance which types of patients require particular additional consultations. In less well-organised hospitals, the inflexibility of such a system might lead to the withdrawal of particular kinds of allied health care altogether, or additional patient inconvenience, with a return visit arranged in order to meet the requirement for a booked appointment.

In the longer term it may be possible to identify those patient conditions or clinical specialties where continuing management utilising a hospital-based

multidisciplinary team is both clinically and organisationally desirable. In these areas, an episode of care model (Jackson 1996) or continuing case management (such as forms of care developed through the Commonwealth's Coordinated Care Trials) may provide a better basis for funding policy.

Conclusion

Hospitals offer multidisciplinary clinics for a variety of reasons, and with a wide range of definitions of how the term translates into practical clinic organisation. The most frequent rationale for organising multidisciplinary care is to improve both convenience and clinical outcomes for patients with complex conditions requiring ongoing specialist medical care. This approach has considerable support from the published international literature.

Two important and unresolved policy issues complicate discussion of how hospital-based outpatient multidisciplinary care should best be reimbursed. The first is the relative roles of the public and private sectors, and the second is the respective roles of specialist and general practitioners. One key to both of these is the differential access to subsidised allied health care available through hospital outpatient departments.

Introduction of output-based funding for outpatient care creates some urgency in addressing the issue of multiple clinical transactions in the context of a single visit. Each of the three approaches canvassed here represents a different balance between the needs of funders and providers of outpatient care. A policy of counting multiple booked appointments may represent the best interim solution by rewarding the additional effort and resource use which multiple medical and/or allied health consultations entail, while generating documentation of consultations to support rigorous audit by the funder. In the longer term, reduction of the discontinuities between Commonwealth and State responsibilities in ambulatory care may be necessary to ensure appropriate provision of multidisciplinary care.

Appendix

Theme sheet for seminars on multidisciplinary clinic (MC) payment policy

Introduction

- Description of current project
- Development of the Victorian Ambulatory Classification System (VACS)
- Payment window (medical, nursing, diagnostics and drugs)
- Problems in counting and paying for Multidisciplinary Clinics
 - Currently count as single encounter
 - Hospitals at a disadvantage when MCs are paid on this basis
 - Four topics for discussion: philosophy, definitions, professional ‘investment’ and financial incentives.

Philosophy

- What advantages does this kind of organisation have?
- Are there disadvantages?
- Why does your hospital organise clinics in this way?
 - History?
 - Concerns for patient welfare? (avoiding multiple visits,...)
 - Particular casemix?
 - Current philosophy?
- Should other hospitals place the same emphasis on MCs as yours?

Definitions

- What does the hospital mean by MC?
- What variations exist on MC?
 - Multi-doctor
 - Medical/Allied Health
 - Role of Nursing
 - Other
- How are they typically organised?

Professional ‘investment’ (perspectives of different professional groups)

- Do some professional groups favour or resist MCs more than others?
- Is it related to:
 - Particular aspects of training?
 - The casemix of patients?
 - ‘Territorial’ concerns?

Financial incentives (of different payment mechanisms)

- Does current block/historical funding help or hinder MCs?
- How do you see casemix-based outpatient funding affecting MCs?
- How would you prefer to see counting rules determined?

Any other issues

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