Case Payment in Australian Hospitals: Issues and Options *by Richard B. Scotton and Helen Owens*
(Public Sector Management Institute, Monash University, 1990), pp. xxii + 294, ISBN 0-7326-0203-3.

Australian hospitals are funded for inpatient care mainly by reimbursment of cost. Public hospitals negotiate global budgets based on expenditure in the previous year. Private hospitals are reimbursed costs of components of individual episodes — days of stay, operating room costs, and so on.

The core of case payment is that hospitals should be paid (rather than reimbursed), there should be a single payment for the whole episode, and that there should be predetermined payment rates for each of a reasonable number of payment classes defined in clinical terms. For example, there might be a single payment of $1,500 for each patient in the class 'normal delivery without complicating conditions', based on average production costs in the previous year. This amount would be paid for each patient in the class, regardless of the actual cost.

It is far from easy to design a classification of cases, such that the members of each class are similar in terms of resource consumption. Every patient care episode is unique to some degree. In fact, the idea of case payment has been around for many years, but efficient classification have only recently been developed. The most widely-known is the diagnosis related groups (DRG) system, by which all acute inpatient episodes are assigned to one of about 500 classes. Similar 'casemix' systems have recently been developed for other categories of episodes such as ambulatory and long-term care.

One expected benfit of a change to case payment is provision of incentives for hospitals to contain cost. Under cost reimbursement, hospitals have to spend in order to generate revenues. Case payment means that the revenue per case is fixed, and profitability is deterimed largely by the hospital's ability to manage its costs.

Because case payment defines payment classes in output terms there are incentives for providers to accurately measure and understand what they are producing. *Inter alia,* hospitals are encouraged to produce accurate and timely descriptions of each patient's problems and the treatment provided. These are inherently valuable, because they are relevant to the care of individual patients. In contrast, funding formulas based on records of costs by type of input encourage accurate accounting, but contribute little to clinical management.

The authors describe these and others advantages in detail. They also discuss some of the risks. For example, they note that case payment could encourage underprovision of services, premature discharge, and inappropriate addmissions. However, they conclude that the risks are manageable.

Case payment has been gaining ground over the last 12 years. It is widely applied in the USA, and has been the subject of recent experiments in Europe and Australia. A distinctive contribution of Scotton and Owens is that they propose rapid implementations at a national level by the Commonwealth Goverment, which was the sponsor of their research.

In brief, they propose that funding of hospitals should be the shared responsibility of the Commonwealth and State goverments. The Commonwealth would pay hospitals directly, for each public inpatient episode. The amount would be based on the estimated average marginal cost for each DRG, for all

services excepting those from medical staff. Similar cost-sharing arrangements would apply for outpatients and non-acute inpatients. However, they suggest that "relatively crude interim systems" may have to be applied, because classification and costing work is less advanced than that for acute inpatients.

Marginal pricing is recommended for several reasons, including the concern that payments based on full average cost would "constitute an undue incentive to raise output." It is estimated that the marginal cost excluding medical would be about 55 per cent of the average total cost of the DRG.

State Government would be responible for all other payments to hospitals: the balance of non-medical costs of acute inpatients, all medical costs (proposed by the authors to be set at eight per cent of non-medical costs), portions of non-acute inpatient and outpatient costs, and all other non-patient costs. The States' payments to hospitals should be influenced in some way by the Commonwealth, so that "the incentives presented by (per case) payments" are not diminished.

The medical component is separately identified, because the authors believe DRG payments should exclude medical costs. It is argued that there is no option but to exclude medical costs in respect of private patients; and if they were included in respect of public patients, this would mean that two sets of DRG weights and prices would need to be maintained.

The relative prices for each DRG would be determined in advance of each fiscal year. The actual payment amounts would be based on application of the DRG volumes and price relativities to a total budget — an amount determined by the Commonwealth in much the same way as at present. Thus the formula for distribution would be changed, but not necessarily the total budget. It is argued that a direct cap on the total budget is less desirable than indirect capping by specification of volumes by DRG — that is, activity targets for each State. The States could then allocate these targets across hospitals through negotiated contracts.

The initial rates should be based on national average production costs. The rates for subsequent periods should not be linked directly to changes in input costs, but should rather take account of profitability. If DRG payment "has the expected effect of reducing average lengths of stay and consequently of real cost per case, it would be reasonable to expect the Commonwealth to share the savings." Provision is also made for additional payments in respect of 'outliers' — that is, patients whose costs are far above the average.

DRG payments should also apply for privately insured patients in public hospitals. In contrast to the suggested approach for public inpatients, the authors recommend payment at full average cost rather than at marginal rates. They argue that this approach, along the lines of US Medicare, is "the only truly feasible option for reimbursement of inpatient care provided to private patients." Private hospitals would be allowed to set fees at whatever levels they chose. They would, however, be required to bill by DRG.

The authors also discuss a range of related issues such as desirable reforms in private insurance, change management, utilisation review, and quality assurance. An action plan is proposed whereby the changes might be activated by 1993 if judged desirable.

There is growing recognition that major changes are needed, and that there is a place for case payment. However, some of the details of the Scotton and Owens model need to be researched and debated with great care. For example, it is not obviously sensible to apply the ratio of marginal to average total costs

to determination of the cost-sharing split between Commonwealth and State Governments. The role of case payments in a larger model which includes needs-based funding of defined populations is not clearly defined. The separate funding of medical costs might make sense, but not necessarily for the reasons presented.

In summary, this book is a valuable contribution to the debate. Some issues are unresolved, and others are not fully argued. This is, however, a consequence of the complexity of the problems rather than the way in which they have been addressed.

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Vitamin C and Cancer: Medicine or Politics? *by Evelleen Richards*
(Macmillan, Basingstoke, 1991), pp. xiv + 269, £ 35.00, ISBN 0-333-44419-1.

"It's a good read", said my friend, "I'm getting a copy for my Department". I was impressed, because the friend who said it is a professor of cancer epidemiology, and it is not common for scientific specialists to pay that sort of compliment to works on sociology of science. Like many good books, this one can be read at more than one level. At one level it is simply a readable and generally accessible account of the controversy regarding the effectiveness of vitamin C in controlling cancer. Some will doubtless read it just for that — to get an answer to the question, does it work? They will be disappointed, because the book doesn't answer that question.

What it does set out to show is that the orthodox medical establishment has *rejected* the claims made for vitamin C but it has not *disproved* them. The 'vitamin C believers' are headed by a pair I cannot help thinking of as 'The Odd Couple' of cancer research: one of America's most distinguished scientists, the double Nobel Prize winner Linus Pauling, together with Ewan Cameron, self-described as "an obscure Scottish surgeon" fired by "one blazing idea and a life-long desire to do something useful about the cancer problem". The controversy became acrimonious. When the negative results of the second Mayo Clinic trial were presented and accepted as "methodologically sound and therefore definitive", Pauling railed about "fraud and deliberate misrepresentation". How could such a sharp disagreement arise? As boiled down by Richards' skilful analysis, the answer is that neither side was necessarily wrong or dishonest, it was just that they were answering subtly different questions.

The sociological and epistemological agenda does not come to the fore until the third of the three parts of the book. Basically, it is the by now familiar thesis about objectivity, that "there ain't no such thing", strictly speaking — not even in randomised controlled double blind clinical trials. The case study material is deployed to devastating effect in support of this thesis. Especially impressive is the analysis of the social shaping of the controversy (ch. 7): views on efficacy were socially negotiated, and so was publication; the media played an important role in the social construction of the facts, and rhetoric was as influential as reason; both sides changed their ethical positions according to the exigencies of the moment. The comparison of vitamin C with two alternative chemotherapeutic agents, 5-fluorouracil and interferon (ch. 8) is icing on the already rich intellectual cake.