Costs, care and rationing: a comparative study of intensive care in the UK and Finland

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1. Overview

NHS Trusts recognise the difficulties in balancing limited hospital capacity and an increased demand for health care on the one hand (partly fuelled by greater life expectancies and an ageing population), and advances in medical technology and greater expectation from patients that the latest treatments will be available to them on the other. These pressures lead to a rationing of service provision that relies heavily on the professional judgement of key health care professionals and increases the potential for a greater reliance on accounting information to support decision making.

This balancing act is particularly evident in intensive care units (ICUs) where life or death decisions are taken and the cost of health care provision is extremely high. The multi-disciplinary nature of ICUs (where a mix of staff and resources are used to deliver patient care) mean that budget management and co-ordination of priorities are especially complex.

In the UK, the knowledge and practices of health care professionals dominate decisions on the use of resources, with management accountants in a supportive role. In Finland, there is no well-developed management accounting profession and health care professionals have absorbed management accounting expertise to inform their use of resources.

This research paper reveals distinct differences in the delivery of management accounting information between ICUs in Finland and the UK and has major implications for the management of intensive care facilities and indeed health care management accounting generally. The research found that the Finnish model provides far greater potential for accounting to impact directly on the decisions of clinical teams, due to the greater involvement of physicians and nurses in budget construction and negotiation. It also found that by extending the expected knowledge base of doctors to include some expertise in accounting matters and developing NHS national reference costs, accountants and clinical practitioners could gain a greater appreciation of the relationship between clinical activity and cost incurrence.

2. Objectives

The major objective of this study was to compare health care performance management in the UK and Finland in the context of budgeting of intensive care units (ICUs) to determine if there are benefits to be obtained for management accountants in the UK’s NHS.

The study aimed to address three questions:

Q1. What is the potential for accounting to influence clinical behaviour?
Q2. To what extent do the disciplines of accounting and clinical practice inform one another?
Q3. Does accounting information operate differentially within health care and professional groups?
By examining the ICUs of major hospitals in Finland and the UK the study evaluates the extent to which accounting can or does assist in the determination of priorities, or whether it displaces or distorts medical criteria.

This project is particularly timely for management accountants in the UK, given the demise of the internal market in health care and re-emphasis of cost comparisons and benchmarking in the modernisation of the new NHS.

3. Findings

3.1 Introduction

During the last 20 years, there has been a significant effort on the part of the accountants to develop more sophisticated management accounting information for NHS hospitals. The move to costing based on health related groups (HRGs) and, more recently, the construction of national reference costs are examples of these efforts. However, recent studies have pointed to the ineffectiveness of such accounting systems, particularly because of their inability to mesh with key decisions made by hospital consultants who are the key triggers of resource consumption within hospitals. The inability of accounting systems to inform clinical decision-making in UK hospitals can, in part, be seen as a consequence of the focus of many accounting developments on costing services and creating control devices for hospital financiers rather than on planning and resource allocation that can support decision-making processes.

The research carried out in this study focuses on the relationship between accounting information (specifically the use of budgets for short term planning and control) and clinical decisions by comparing the practices of hospital managers and accountants in particular interest because of the differences in management accounting in these countries. Finland does not have a well-developed management accounting profession. One consequence is that health care professionals in Finland have taken the initiative in designing and implementing information systems, with explicit consideration of cost information.

This research is also unprecedented because of the specific focus on intensive care units. This is in contrast with previous studies, which have tended to focus on the general issues of costing and budgetary control, rather than specific areas of health care. The area of intensive care unit management is of interest because it is a part of health care that receives increasing resources but at the same time is at the sharp end of spiralling demands for innovations in health care treatments and increased expectation of the highest levels of care by patients. It is also an area of interest for accountants who are faced with the balance between providing quality patient care in this high profile and highly uncertain area of medicine with budgetary control and a disciplined approach to clinical decision making which will produce a fair distribution of resources.

3.2 Scoring systems

With demand for intensive care outstripping supply, clinicians have sought to find ways of identifying those patients for whom it is considered that intensive care will be beneficial. A number of scoring systems have been designed to give some indication of the success of intensive care and to attempt to predict those patients whose admission to ICU would not be useful. Often this has led to emotive stories about doctors ‘pulling the plug’ on sick patients. However, this detracts from the more important issues, namely that probability and prediction are different. That is to say that scoring systems do not decide the outcome or treatment of individual patients, rather they provide information about the likelihood of certain outcomes. These systems are then used as the basis to determine nursing workloads and to investigate costs of intensive care.

An example of such scoring systems is the Therapeutic Intervention Scoring System (TISS), which attempts to score medical interventions depending on the time taken and the complexity of the care involved. This allows ICU managers to assign standard costs to individual patients in order to assess the intensity of treatment and the need for intensive care resources. TISS may be used as a management tool in costing the processes of care and assisting in making resource allocation decisions at the individual patient level, however, it cannot be used as a predictive tool as the individual circumstances of each patient’s case vary too widely.

Clinicians have attempted to develop other scoring systems to predict outcomes for individual patients, but these have been limited in their applicability, are difficult to translate into meaningful accounting information and are of little use in the management of budgets.
3.3 Costing techniques
Just as non-financial indicators of intensive care may be problematic, so too is the costing of this particularly complex part of health care. Most traditional costing systems in intensive care units, as well as in other hospital units, have been based on a calculation of an average bed day cost derived from the hospital ledger. The cost per patient is then found by multiplying the cost per day by the length of stay of the patient. The major flaw of this method is that it does not reflect patient-specific resource use, and it assumes that resource use is constant during the entire stay of an individual patient. Furthermore, it is often the case that a typical hospital stay will have a high initial cost but then cost decreases towards the end of the stay.

Attempts at using activity-based costing to address the question of resource use have also been made. These reveal patient-specific intensive care costs with respect to specific cost drivers - taking into account drug acquisition costs and different products' financial implications on such things as labour and facility utilisation. However, despite the attraction of using the ABC-type costing systems, there is no actual or recognised uniform method of intensive care costing (except for the traditional cost per day per patient), making comparison of costs between ICUs extremely difficult.

Over the years, cost comparison between different intensive care units and comparison of costs over time have become increasingly necessary exercises for those in charge of ICUs, who participate in the intensive care units’ budget negotiations and who are expected to justify the increasing expenditure on intensive care services to hospital management and to the providers of health care funds.

The major defect of existing accounting techniques for ICUs is that they have generally failed to provide insights into how budgetary control operates or inform clinical decision making.

3.4 The UK experience
The research found that the potential of accounting to influence the activities of health care professionals in the UK is limited. This is partly because clinical teams are shielded from the intrusion of accounting information in order to focus solely on the clinical nature of their work and partly to insulate the ICUs from the uncertainties which this service faces, with overspends dealt with in other areas of the hospital’s budget.

In addition, because the available management accounting information is reactive, rather than proactive and does not capture the complexity of the tasks undertaken or challenge the overspends of the unit, it has a low level of visibility within the ICU teams. As a consequence the flow of information between clinical teams and accountants tends to be one-way: the team’s activities are interpreted, evaluated, costed and entered into the budget-setting framework for future periods but there is no comparable flow of accounting thought, expertise or practice penetrating the thinking of the health care professionals within these intensive care units.

3.5 The Finnish experience
In Finland, the intensive care unit health care teams are tightly knit groups, as in the UK. However, they are not isolated from the concepts, practices and information provided by management accountants as in the UK. The absence of management accountants in Finnish hospitals means that the clinical teams have come to absorb this information-generating process of management accounting themselves. That is, they participate in budget construction and cost scrutinies and use this to influence their activities. If actual spending is reported as having exceeded the accepted budget frame, the medical staff have to negotiate possible ways in which the budget target can be achieved.

These health care professionals also draw on their clinical expertise in the management of their facilities and bring together the different disciplines of accounting and clinical practice. The potential for accounting to influence clinical actions in the Finnish context is clearly greater than in the UK.

4. Conclusion
Intensive care units are extremely costly - they have above average proportions of highly qualified staff (particularly nursing staff), use expensive equipment, provide technically advanced treatments and often make extensive use of laboratory services and hospital pharmacies. Annual intensive care cost increases in many hospitals, consistently exceed the increases of the costs of other forms of inpatient hospital care. Also, resourcing issues around capacity (bed numbers), availability of skilled staff and budgetary location make the management of intensive care units complicated. Most difficult of all however, is the nature of the decisions made within intensive care units and the ability to predict future levels of activity.
The existence of a refined, robust measurement system for intensive care is a precursor for the development of meaningful accounting for activities in intensive care. Attempts at integrating clinical scoring systems have not been successful at estimating future demand and the traditional, incremental process of budget construction in health care has been inadequate. The practice deployed by management accountants in the four hospitals in this research was that of a series of overlapping budgets, in which intensive care units were nestled within larger cost centres for administrative purposes. This has the effect of shielding the intensive care units from the variations in demand that may lead to deficits in their allocated monies. The research calls for more sophisticated costing studies to be undertaken in the area of intensive care and a more precise budget construction within ICUs that would allow staff to keep a closer eye on what they consume and how much they consume.

With regards the interplay between accounting and the clinical disciplines it is clear that in Finland, because of the role of clinicians in budget construction, monitoring and cost scrutiny, there was much greater cohesion. One of the most evident examples of this interplay is in the use of TISS points to measure clinical activity in Finnish ICUs and the relation of this scoring system to the costs. In the UK, it can be seen that clinical practice informed accounting practice to the extent that changes in clinical practices that triggered financial deficits then triggered investigations by management to quantify and cost the impact of changes in practices. However, in the UK, accounting information did not act as an explicit constraint to ration clinical activity. The research recommends the development of greater links between measurement of clinical activity in intensive care and accounting measures and the development of national reference costs in the NHS as a way of involving accountants more closely in measuring and understanding the relationship between clinical activity and cost incurrence.

Finally, on the issue of accounting information operating differentially within health care professional groups, the research found a number of differences between the UK and Finland. In the UK, those most closely involved in management accounting of the ICUs were located within the administration structure of the hospitals and were sufficiently remote from the direct provision of intensive care not to be considered part of the ‘team’. By contrast, the Finnish ICU teams worked with accounting information to construct and negotiate their budget and to monitor their expenditure. However, a key factor in the development of the Finnish approach is the absence of management accountants in the hospitals sector, where accountants are confined to treasury and governance roles and clinical staff are, by default, required to take on greater management of the ICU’s budget. This raises questions over the transferability of such an approach to the UK and highlights the need to consider the local context as part of any ‘global’ solution to management accounting problems. The research does indicate, however, that there is a case for closer integration of the education of clinicians in the understanding and costing of clinical care in order to provide greater exposure to accounting information and financial constraints and improve cost consciousness amongst both doctors and nurses.
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