

REVIEW

Diagnostic Related Group

A diagnosis is arrived at through history, physical examination, clinical laboratories, radiology and imaging departments. Abuse of the latter three has become a common practice, the excessive use or abuse of these facilities could be due to different motives, money-making in the private patients sector, academic teaching and research purposes or abuse through ignorance.

In the United States of America the abuse has flourished over many years. Therefore, the government and insurance companies have formed the Diagnostic Related Group where each medical condition is categorised and the price of treatment fixed accordingly. If any hospital exceeds the limit of costs then the government and insurance companies will not meet the extra charges.

Since there is a need to economise in the Arabian Gulf area it is appropriate to think of cutting the cost of medical services and this is one of the fields that could be considered without limiting the service or endangering the patients in any way.

The Bahrain Medical Bulletin has taken this initiative by re-publishing a series of articles which appear in the journal Health Trends by M.G. Rinsler MD FRCPath. which could simulate our situation.

CHIEF EDITOR

The Appropriate use of Diagnostic Services (i) Introduction to the Series

M.G. Rinsler*

INTRODUCTION

In arriving at a diagnosis, and subsequently following the course of a disease, the clinician pieces together many items of information from a variety of

sources. The story that the patient tells and the evidence which can be obtained from a physical examination still provide the vital initial clues¹, but in recent years, to supplement these traditional sources, more and more data are provided from clinical laboratories, as well as radiological and imaging departments. Although, in the NHS, the provision of diagnostic services to assist the clinician accounts for

* Northwick Park Hospital and
Clinical Research Centre,
England

only about 6% of the gross cost of the hospital service (including labour)² it is, nevertheless, a substantial item which if used effectively speeds and often substantiates a diagnosis, and assists with the monitoring of the progress of disease and therapy; but if used without discrimination adds to the cost of patient care without improving the process of decision making. Ineffective radiological or pathological investigation, apart from diverting money from innovation in these fields, competes for funds which could be better spent on other aspects of clinical work.

COST OF DIAGNOSTIC SERVICES

Although the major fraction of the cost of providing diagnostic services is accounted for by the employment of skilled technical, radiographic and scientific staff, each test has a materials cost which may vary from a few pence to many pounds. Additionally, there is the capital cost of the machinery as well as the space which has to be provided for these activities. Multiplied by thousands in each district, the cost of avoidable investigations amounts to substantial sums of money each year. Unproductive routine profiling procedures^{3 4}, overzealous protocols^{5 6}, and the too-frequent repetition of the common diagnostic tests can account for as much as 30% of the work passing through many diagnostic departments. It has been demonstrated that considerable variation exists between hospitals in the resources devoted to the investigation of similar clinical problems⁵. Gross savings of 30% per annum of the cost of running such departments are unlikely to be achieved, as the economies relate principally to reagents, tubes, syringes and needles — labour economies will be smaller. Nevertheless, savings of 10% are realistic, and over the years real saving can be made. Technical and scientific staff can devote more time to providing a wider range of services.

PATTERNS OF DIAGNOSTIC PRACTICES

The patterns of diagnostic practices have been studied in a number of countries, particularly in the USA, where the proportion of hospital expenditure attributable to diagnostic services is nearly three times that in the UK. Pressure on health care budgets in most western countries has led to the critical examination of clinical expenditure in this and other areas^{7 8 9 10}. The importance of education has been stressed, particularly in undergraduate years^{11 12}, and in later practice when the influence of senior colleagues has a significant bearing. A knowledge of the cost of individual procedures does not seem to have much effect on the behaviour of clinicians although one investigation did indicate that,

when real options for spending within a defined budget did exist, clinicians were more careful with the use of laboratories and radiological departments¹³. Other incentives, such as book tokens, for low consumers of laboratory resources^{14 15}, or disincentives for high consumers¹⁶, seem to have very temporary effects.

SELECTION OF DIAGNOSTIC PROCEDURES

What positive approaches can we adopt to modify the current patterns of behaviour in the selection of diagnostic procedures? The improvement of turnaround time in diagnostic departments, better communications so that reports are available promptly, and making available more information concerning the effective use of tests, can be helpful. A closer working relationship between clinicians, radiologists and pathologists would undoubtedly lead to an improvement in the way in which these resources are used; a better knowledge of the value of logical patterns of investigation cannot be achieved unless we work more closely together. A rational and economic use of diagnostic procedures requires a commitment to this objective^{17 18 19}. Regular case reviews for self educational purposes seem to be one very good way of achieving such an economy as well as leading to higher professional standards in other directions^{20 20}.

CONCLUSION

To encourage a critical approach to this subject, this journal will publish a series of papers which will suggest some good professional practices in the use of diagnostic resources.

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