The cost of a general practitioner in the national health service

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SUMMARY. This paper estimates the cost to the National Health Service of decisions made by a trainee general practitioner during two consecutive weeks. By extrapolation of the cost of these actions (issuing prescriptions, issuing National Insurance certificates, requesting investigations, and initiating hospital referrals), the annual cost of a general practitioner in the National Health Service is at least £43,000.

Introduction
In a health service that is free at the point of consumption, the consumer is often blamed for the high costs involved. However, although patients have been relieved from the financial implications of medical treatment, the infinite demand for this treatment must be contained within finite resources. Doctors can no longer expect a clinical freedom based on "a licence to ignore all considerations of cost and resources . . . clinical freedom means the responsibility of involvement, and of choosing priorities in health care" (Owen, 1976).

Aim
My aim was to try to calculate the cost to the National Health Service of my decisions during two consecutive weeks' work in my training general practice.

Method
For the first two weeks of April 1976 I recorded every consultation with a patient. At the time I was a trainee in a three-partner group practice in a health centre in the City of Exeter and able to assume the workload of an absent partner, whose list size was 2,700 patients. Many of the features of the practice have already been published (Bolden and Morgan, 1975). At every face-to-face consultation, a record was made of all actions taken, and I have tried to calculate the financial consequences to the Health Service.

Prescriptions
Every item prescribed was priced at the cheapest rate, either from MIMS or the Drug Tariff (Department of Health and Social Security, 1976a). The total costs were obtained by adding the 'on-cost' (at an average rate of eight per cent) plus 25.55 pence to represent the pharmacists' dispensing and container allowances.

Repeat prescriptions without consultation were excluded from the survey, both because they did not result from personal contact with patients and because they were treatments started by another doctor before the survey started.

Investigations
The costing (table 1) was based on the recommendations of the Department of Health and Social Security for costing pathology specimens (DHSS, 1972), and were calculated at district level from the cost per weighted request (Hargreaves, 1976). These charges include

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the running costs for each investigation such as autoanalyser costs, reagents, and disposable items, as well as a proportion of overheads such as staff salaries, and laboratory heating and lighting. The radiology costs for the services in a district general hospital include a large proportion for overheads, particularly in the provision and maintenance of expensive machinery, and only a small proportion for the x-ray film itself (Mayall, 1976).

**TABLE 1**

**COSTS OF INVESTIGATIONS**

<table>
<thead>
<tr>
<th>Investigation</th>
<th>Cost per item</th>
<th>Numbers done</th>
<th>Total cost for 2 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BACTERIOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throat swab</td>
<td>£3.41</td>
<td>6</td>
<td>£20.46</td>
</tr>
<tr>
<td>Other swab</td>
<td>£3.10</td>
<td>5</td>
<td>£17.05</td>
</tr>
<tr>
<td>Urine</td>
<td>£4.00</td>
<td>8</td>
<td>£27.28</td>
</tr>
<tr>
<td><strong>HAEMATOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>£2.62</td>
<td>4</td>
<td>£10.48</td>
</tr>
<tr>
<td><strong>BIOCHEMISTRY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urea and electrolytes</td>
<td>£5.24</td>
<td>2</td>
<td>£10.48</td>
</tr>
<tr>
<td>Others</td>
<td>£3.10</td>
<td>2</td>
<td>£6.20</td>
</tr>
<tr>
<td><strong>X-ray</strong></td>
<td>£8.00</td>
<td>1</td>
<td>£8.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>28</td>
<td>£104.00</td>
</tr>
</tbody>
</table>

**National Insurance Certificates**

The total cost of certificates (form Med.3) issued was supplied by the local office of the Department of Health and Social Security.

**Sight testing (Form OSC I)**

A fixed amount is payable by the National Health Service for an eye test. In April 1976 the fees were £3.10 for a sight test by an optician and £2.26 for a test by an ophthalmic medical practitioner.

**Hospital referrals**

The exact cost of any hospital treatment was not independently assessed in this survey, but average costs for hospitals have been studied elsewhere.

In 1974 the average cost of an outpatient attendance was about £6. The cost of an acute hospital bed can vary from £9 per day to £80 per day (Owen, 1976). An estimated daily cost per patient for the local district general hospital of £20 was supplied by the Finance Department of the Exeter Health Care District (Wilman, 1976). This is in broad agreement with other published figures of the national average costs for non-teaching hospitals (Central Statistical Office, 1975).

**Results**

From the 269 consultations recorded, 254 items were prescribed for 181 patients (total cost £310), 26 certificates were issued (total cost £326) and 28 investigations were undertaken (total cost £104). The details are shown in table 2.

Three patients were referred to hospital outpatients, three were referred for emergency admission (between them remaining in hospital a total of 22 days), and one was referred for sight testing.
The cost of a general practitioner in the National Health Service

**TABLE 2**

Costs incurred in 269 consecutive consultations in general practice

<table>
<thead>
<tr>
<th></th>
<th>Numbers</th>
<th>Cost for two weeks</th>
<th>Extrapolated annual cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient referrals</td>
<td>3</td>
<td>£440</td>
<td>£11,440</td>
<td>Total of 22 days in hospital</td>
</tr>
<tr>
<td>National Health Insurance Certificates (Form Med. 3)</td>
<td>26</td>
<td>£326</td>
<td>£8,500</td>
<td>Total of 202 days certified incapacity</td>
</tr>
<tr>
<td>Items prescribed</td>
<td>254</td>
<td>£310</td>
<td>£8,060</td>
<td>Cost per prescription £1.22</td>
</tr>
<tr>
<td>INVESTIGATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-ray and pathology</td>
<td>28</td>
<td>£104</td>
<td>£2,704</td>
<td></td>
</tr>
<tr>
<td>Outpatient referrals</td>
<td>3</td>
<td>£18</td>
<td>£468</td>
<td></td>
</tr>
<tr>
<td>Optician (OSCI)</td>
<td>1</td>
<td>£3 (average)</td>
<td>£78</td>
<td>Fees vary from £2.26 to £3.10</td>
</tr>
<tr>
<td>Consultations involving no extra cost</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Consultations</strong></td>
<td>269</td>
<td>£1,201</td>
<td>£31,200 approx.</td>
<td>To the annual cost must be added salary and expenses (see text)</td>
</tr>
</tbody>
</table>

There were 59 consultations (22 per cent) which did not have any extra financial consequences.

The total known costs of my work during the two weeks were over £1,200, equivalent to an annual expenditure of over £31,000. Other costs reflecting the doctor's salary and expenses must be added to this. While this, of course, varies for each doctor, and will be less for a trainee, an average amount of £12,745 per year is to be paid to general-practitioner principals in 1976 (Review Body on Doctors' and Dentists' Remuneration, 1976).

The total annual cost of an average general practitioner to the British National Health Service is therefore likely to be over £43,000.

**Discussion**

My management of the patients during these two weeks may not have been typical, ideal, or desirable, but all these costs did arise directly from my own actions during the survey.

The final estimate for the annual cost of a general practitioner's work is £43,000. In several ways this figure is likely to be below the average practitioner's costs.

**Prescriptions**

Although the cost per prescription reflected the national average cost in 1975 of £1.27 per prescription, the equivalent annual cost was only £8,060. Repeat prescriptions were, however, excluded from this survey. In 1975 the annual cost of prescriptions per doctor was £14,600.
Certification
The estimated annual cost for National Insurance certificates was £8,500. This is difficult to compare with figures for other doctors since National Insurance certificates may be issued from other sources e.g. hospitals. The average cost per certificate per day in this survey was £1·61. The national average cost per certificate per day for men, calculated from the population distribution of claimants (Social ServiceS statistics, 1974; (DHSS, 1976) using current scales of benefit, is £2·21, in addition to which an earnings related benefit of up to £1·42 per day and supplementary benefit, may be payable.

The low cost of certificates in this survey may be partly due to the short duration (less than seven days) of many certificates during an influenza outbreak. The three qualifying days before payment considerably reduced the cost of these.

Hospital referral
The hospital referral rate was very low. For the "average doctor" with a list size of 2,400, an expected referral rate to outpatient departments excluding obstetric cases and accident and emergency attendances would be 410 per year (15 per fortnight) and to inpatient departments for both urgent and non-urgent admission would be 270 per year (ten per fortnight). The national average stay in hospital is ten days (Department of Health and Social Security, 1976b).

It seems that the two weeks' work for the "national average" doctor could lead to the annual expenditure of much greater sums (up to £56,000 per year on hospital care alone), than those produced by the abnormal workload of a trainee acting as a locum doctor. While the cost of treatment in hospital is actually incurred by hospital staff, action by a general practitioner in initiating an admission renders this high expenditure inevitable.

The provision of satisfactory medical care to the community is a responsibility to be faced by both politicians and doctors. As an example where useful co-operation might occur to the benefit of all, there is already doubt whether the admission to hospital of selected cases of myocardial infarction is beneficial (Mather et al., 1976). Consequently, the £450 saved for each patient treated at home (Owen, 1976) might be usefully used to finance a domiciliary cardiography service, or a domiciliary programme of rehabilitation and physiotherapy for such patients.

The cost of hospital treatment is not only financial but social. With many hospitals working to their capacity, occupation of a bed by one patient automatically excludes another patient and so can lengthen waiting lists.

Investigations
In 1971 over 13 million requests for radiological and pathological services (Garraway et al., 1974) were made by the 21,900 general practitioners then practising in England and Wales (DHSS, 1976), an average of 12 investigations per doctor per week. Requests from general practice accounted for 12 per cent of the work of these departments. It is against this background of use that any costs must be considered.

The quoted costs for investigations may seem high, but are calculated to cover all the hidden costs of overheads. It can be argued that the cost of one extra investigation would be much less, but the demand from general practice is a significant proportion of a workload which is made up of single requests.

The demand for investigations is increasing, although the usefulness to clinical diagnosis of the majority of requests has been questioned (Davies, 1976). If each of the 24,300 general practitioners in Great Britain were to require one less investigation per week (on average), the saving could amount to over four million pounds per year.

The total cost of a week's supply of penicillin V tablets B.P. in a dose of 250 mg four
times a day, or of 40 aspirin tablets B.P. is 31 pence. The cost to the National Health Service is reduced by deduction of the prescription charge. At a final cost of 11 pence for the empirical treatment of a sore throat with either antibiotics or analgesics, all doctors must ask themselves whether it is worth spending 30 times that amount on a throat swab.

Conclusions
The services provided by doctors are expensive to the National Health Service, and the realisation of this made me more aware of the financial consequences of my actions. There are many procedures that doctors undertake routinely, such as ordering an investigation, without any consideration of the true costs relative to benefit to the patient.

The question of whether the high costs of medical services are inevitable, or could be reduced without prejudicing the standard of care that patients receive, is likely to be the subject of considerable discussion. The responsibility for spending public money usefully and wisely on health services should remain with the medical profession. Two recent statements by politicians emphasise this: "Clinical freedom is very precious and the medical profession is right to cherish it. If politicians or administrators start to make economic choices without involving doctors, doctors will face an inevitable curtailment of clinical freedom. Its maintenance requires the involvement of doctors in the process of choice, and in the ordering of priorities." (Owen, 1976).

The second comment was made by the present Secretary of State for Social Services, in a talk on low-priority, 'Cinderella', services. "It is the people working in the services who can best work out the most efficient ways of providing care... It is surprising how much ingenuity people can show in doing things at no greater cost, and in maintaining standards" (Department of Health and Social Security, 1976b).

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REFERENCES
Monthly Index of Medical Specialities. London: Haymarket Publishing Ltd.