Surgical outpatient clinics: are we allowing enough time?

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Abstract

Background. Performance management initiatives, such as the UK’s Patient’s Charter, are creating pressure for patients to be seen earlier at out-patient clinics, thus increasing clinic workloads. There is, however, little information about whether this can be absorbed, either by utilizing spare capacity or by more efficient use of time, or whether it is likely to affect patient care adversely.

Methods. Nine surgical clinics, run by four general surgeons, in an English district general hospital were studied during a typical week. Clinic schedules and numbers invited to attend were extracted from clinic records. An observer recorded the actual time each patient spent with the surgeon to the nearest 5 seconds. Scheduled and actual times of commencement and completion of clinics were also recorded.

Results. The number of patients booked to attend each clinic varied from 11 to 82 (mean 37). The median consultation for new patients was 4.3 minutes and for follow-up patients it was 3 minutes. Consultants spent a median 2.7 minutes with patients whereas junior staff spent 4.2 minutes. These aggregate results conceal considerable variation between surgeons, even though the scheduled time available was similar. The median time spent with new patients by one consultant was 1.3 minutes and by another 13.1 minutes. Seven of the nine clinics overran their scheduled time (by up to 55 minutes). All doctors, with one exception, arrived late for the clinics (range 10 minutes early to 30 minutes late). The first patient was invariably seen after the scheduled starting time for the clinic (mean 17 minutes, range 5–50 minutes) and the median interval between a doctor arriving and seeing their first patient was 10.6 minutes. Overall, only 50% of the time spent by doctors at the clinics was with patients.

Implications. The amount of time spent by patients with surgeons is already so short as to cause concern about both the appropriateness and value of consultations. It is unreasonable to increase workload further. There is a clear need for out-patient clinics to be managed, with regular examination of what is taking place and how long it takes. Only then will it be possible to tailor schedules to the actual requirements of the service.

Keywords: communication, consultation length, outpatient clinic, surgery
when consultations last under 10 minutes. The initial consultation is especially important as it often provides the basis for either an in-patient stay or a programme of treatment (in the UK, invasive diagnostic or therapeutic procedures are rarely undertaken in the out-patient clinic). The consultation should provide an opportunity to explore the expectations and preferences of the patient and thus to develop a shared vision of his or her future management. However, the evidence that patients are often dissatisfied with the amount of information that they receive [4,5] and that expectations of the consultation often vary considerably among patient, specialist and referring general practitioner [6] suggests that this is not always so.

The current British Government, in its recent White Paper on health service quality, has emphasized the importance of individualization of care, in which the patient is an active participant in decision making [7] and, although not subject to quantitative targets, the Patient's Charter also states that patients 'must also be provided with a clear explanation of the treatment proposed, including any risks as well as alternative treatments.'

It has been argued on the basis of other research that a reasonable duration for an appointment at a surgical out-patient clinic is 20 minutes for a new appointment and 10 minutes for a follow-up appointment [8]. This study looks at the current pattern of surgical out-patient consultation in a hospital in the south of England to examine how closely the current situation approximates to these standards and how it might be affected by pressure to increase throughput further.

Methods

Nine general surgical clinics held at a district general hospital in the south of England were studied, representing the total outpatient work of all general surgeons in the hospital in a 'typical' week. 'Typical' was defined as where the numbers of either patients or doctors had not been deliberately changed for a specific reason such as study or annual leave, or proximity to holidays, such as the week adjacent to a bank holiday.

The hospital had four consultant general surgeons, referred to as A, B, C and D. Although designated as general surgeons, each had a subspecialist interest (98% of the outpatient workload of consultant A was vascular, 77% of consultant B's was breast or endocrine, 94% of consultant C's was upper gastrointestinal or pancreaticobiliary, and 85% of consultant D's was colorectal). Surgeons designated as entirely specialist, such as urological, orthopaedic and ear nose and throat surgeons were excluded. In addition, an associate specialist (a career post at subconsultant level) undertook clinics for three of the consultants every other week. Consultants A B and C each had a registrar and Consultant D had a senior house officer (in the UK, a registrar is a doctor undertaking specialist training with 3–7 years postgraduate experience; a senior house officer has at least 1 year post graduate experience).

Analysis was based on the 'doctor-clinic session'. If three doctors were present at a single clinic this represented three doctor-clinic sessions.

The number of available 'doctor-hours' scheduled for each clinic was calculated by subtracting the time of the first appointment from the anticipated time of the end of the last appointment (the last booked appointment time plus the usual scheduled time for an appointment in that clinic) and multiplying it by the number of doctors available.

The 'mean scheduled time per patient' was calculated for each clinic, by taking the total scheduled doctor-hours available for the clinic and dividing it by the total number of patients scheduled to attend. To account for patients that did not attend, an adjusted scheduled time was calculated. This is similar to the scheduled time but based on the number of patients actually attending the clinic rather than those booked to attend. As a pilot study had indicated that the non-attendance rate was taken into account when scheduling appointments, this measure was seen as a more appropriate measure of the time allowed for the consultation.

The actual time spent with each patient was recorded to the nearest five seconds by an observer with a stopwatch. It has been argued on the basis of other research that a consultation often varies considerably among patient, doctor and treatment proposed, including any risks as well as alternative treatments.'

Analysis was undertaken using the Statistical Package for the Social Sciences (SPSS PC). Differences in times, which are non-normally distributed, were assessed using the Mann–Whitney U test.

Results

Medical staff consisted of four consultant general surgeons, one associate specialist, three registrars and one senior house
Consultation length in surgical clinics

Table 1  Main features of clinic schedules

<table>
<thead>
<tr>
<th>Team</th>
<th>New: follow-up ratio</th>
<th>Mean scheduled time (minutes)</th>
<th>Mean adjusted scheduled time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1:1.3</td>
<td>7.3</td>
<td>9.3</td>
</tr>
<tr>
<td>B</td>
<td>1:3</td>
<td>4.5</td>
<td>5.4</td>
</tr>
<tr>
<td>C</td>
<td>1:1</td>
<td>12.0</td>
<td>16.6</td>
</tr>
<tr>
<td>D</td>
<td>1:1.3</td>
<td>6.5</td>
<td>9.3</td>
</tr>
</tbody>
</table>

officer. The consultants were employed for a total of 27 sessions each week at the hospital. There was a total of 14 doctor-clinic sessions. Clinics were scheduled to last between 1 hour 30 minutes and 3 hours 20 minutes.

Taking all clinics together, the mean number of patients booked per clinic was 37 (range 11–82), the mean number of doctor-clinic hours per clinic was 3.6 hours (range 2.2–6.6), and the mean ‘did not attend’ rate was 25% (range 3–45%). On average 10 patients were booked each hour (range 5–13 patients). The median mean scheduled time, adjusted for expected non-attendance was 10.2 minutes (range 5.5–20 minutes). There was marked variation between both clinics and consultants (Table 1). Only 35% of the patients were seen by a consultant. If the associate specialist is considered as a consultant, the figure increases to 47% (44% of all new patients, 49% of all follow-up patients). Four clinics were run without consultant staff.

Actual consultation times were available for 231 consultations. Timings were incomplete for 11 others. A further eight patients with leg ulcers were seen only by a specialist nurse and were excluded. Incomplete timings occurred for a variety of reasons, including one of the observers arriving late, toilet breaks and when the consultant saw a patient in another room without returning to the room where the observer was based.

Figures 1 and 2 show the distribution of the duration of consultations for old and new patients with consultants and junior staff. The median consultation time was 4.3 minutes for new patients, significantly greater than for follow-up patients with whom consultations lasted a median of 3 minutes (P = 0.012). This difference was largely due to the much shorter lengths of time that consultants spent with follow-up patients (Table 2). Although the scheduled duration of an appointment at each clinic was similar for each consultant, there was striking variation between and within consultant teams. The median length of time consultants spent with new patients varied from 1.3 to 13 minutes, with junior staff spending from 3.9 to 15 minutes. Three consultants spent more time with new than follow-up patients but one spent longer with follow-up patients. In two of the teams, junior staff spent longer with new patients whereas, in the other two, they spent longer with follow-up patients. Junior staff tended to spend longer with patients than did consultants.

Seven of the nine clinics exceeded their scheduled duration (mean 20 minutes, range 0–55 minutes). The first patient in each clinic was invariably seen after the scheduled start time (mean 17 minutes, range 5–50 minutes). All doctors, with one exception, arrived late for the clinics (median 10 minutes late, range 10 minutes early to 30 minutes late). However, the overall time the doctors spent in the clinic (the time from the first patient being seen to the end of their last consultation) was usually longer than the overall duration scheduled for the clinic. A median of 14 minutes extra was spent with patients (range 34 minutes less to 40 minutes extra). These timings included the time between the doctor arriving at the clinic and seeing the first patient (mean 10.6 minutes, range 2–36 minutes), but not the time spent after they had seen the last patient. This would include dictation of letters and reviewing notes of patients that had not attended. Only one doctor dictated letters during the clinic and the others dictated at the end of the clinic, citing pressure on time during the clinic.

For each doctor-clinic session the time not spent with patients, for every patient attending, was calculated as a median of 5.4 minutes (range 2.5–14.4 minutes). Overall,
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Table 2 Summary of actual times spent with patients

<table>
<thead>
<tr>
<th>Team</th>
<th>Grade</th>
<th>Consultant</th>
<th>Junior</th>
<th>Significance (Mann–Whitney U test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>New</td>
<td>6.40 (5.08–8.42)</td>
<td>4.50 (3.73–5.87)</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>3.19 (2.78–4.22)</td>
<td>5.75 (2.75–7.33)</td>
<td>0.10</td>
</tr>
<tr>
<td>B</td>
<td>New</td>
<td>1.33 (1.15–1.70)</td>
<td>3.88 (3.00–5.15)</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>1.52 (0.81–2.51)</td>
<td>2.81 (1.88–5.28)</td>
<td>0.001</td>
</tr>
<tr>
<td>C</td>
<td>New</td>
<td>13.12 (9.92–14.07)</td>
<td>15.00 (6.40–25.42)</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>3.70 (2.23–15.67)</td>
<td>4.03 (1.83–5.67)</td>
<td>0.89</td>
</tr>
<tr>
<td>D</td>
<td>New</td>
<td>3.08 (2.00–6.33)</td>
<td>4.07 (2.17–6.25)</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>1.54 (1.02–6.67)</td>
<td>5.58 (2.79–7.15)</td>
<td>0.04</td>
</tr>
<tr>
<td>All</td>
<td>New</td>
<td>5.68 (2.23–8.21)</td>
<td>4.14 (2.83–6.25)</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>2.00 (1.15–4.22)</td>
<td>4.37 (2.20–6.25)</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

only 50% of the time spent at the clinic was with patients (range 42–61%). The median waiting time for individual clinics varied substantially (2–84.6 minutes). There was no association between waiting time and how late the first doctor arrived or between waiting time and the time allowed for consultations after allowance for expected non-attendance.

Junior staff were often late, especially in the morning when they had invariably completed a ward round before attending the clinic. In three cases they had been delayed due to the need to treat seriously ill patients on the ward and one was late because the house officer on that firm was absent on sick leave and had not been replaced. All the doctors spent some time during the outpatient clinic telephoning other medical colleagues in attempts to deal with patients elsewhere in the hospital. On three occasions house officers came to the clinic to seek advice about patients with urgent problems. One of the registrars was on call for emergencies on the same day as the clinic and was thus taking calls from general practitioners for emergency referrals during the clinic.

One consultant required his house officer to be present in the clinic to find investigations on the computer and to write out investigation request forms. All the other doctors wrote their own forms and often found their own results on the computer in the out-patient room. Three patients waited 40 minutes for results that were not on the computer and could not be found in the out-patient department. A nurse occasionally had to go to other departments to find results, causing disruption to the clinic because the patient was occupying a consultation room.

Discussion

Before discussing the implications of these findings it is necessary to consider the limitations of the study. Timings were incomplete for a few patients, although the numbers involved were so small that this is unlikely to have any significant effect on the results. The most important issue is whether these results can be generalized. The hospital involved is a standard district general hospital and, while undoubtedly there will be some differences in how outpatient clinics are run throughout the country, we have no reason to believe that this hospital is atypical.

These findings give rise to a major concern. Overall, the median time spent with a doctor was about 4 minutes, but patients attending one consultant were typically seen for only 1.5 minutes. It is necessary to ask whether it is possible to deal with a patient in so short a time?

The obvious solution is to increase the amount of time allocated for patients but this will require addressing either supply or demand or both. Increasing supply may involve either increasing the number of doctors or the proportion of their time each one spends in outpatient clinics. Both have implications for the organization of work within a hospital.

Supply may also be addressed by examining ways in which the value of the doctor–patient contact time is maximized. Possible approaches include, prior to the consultation, a greater use of symptom questionnaires and information on common symptoms, or, after the consultation, reinforcement of advice by another health care professional such as a nurse practitioner. These ideas are being adopted in the increasing number of what are termed ‘one-stop’ or ‘rapid diagnostic’ clinics that are now being established in the UK, in which patients with common symptoms, such as breast lumps [9] or lower urinary tract symptoms [10], undergo a complete diagnostic procedure at a single attendance.

It is also possible to reduce demand, either at entry to the system, by agreeing protocols for referral with general practitioners, or at exit, as shown by a randomized controlled trial of surgical practice in Scotland that compared hospital and general practice follow-up and found no difference in outcome but savings in costs to the patient and the health service from follow-up in general practice [11].

A second concern is that the time spent with patients was short even though the doctors concerned spent longer at the clinic than they were scheduled to. The expected number of non-attending patients is taken into account when organizing clinic schedules, although there are also important questions about how valuable many appointments are to patients when up to 45% do not attend. In contrast, the amount of time
spent by doctors other than seeing patients is not taken into account, even though it accounts for about 50% of the scheduled time. This requires two types of response. The first is to examine how such interruptions can be minimized, such as by ensuring that there is adequate cover for wards. The second is to accept that there will always be some requirement to deal with other matters during a clinic and allowing for this when scheduling appointments.

The finding that doctors were almost invariably late for the beginning of the clinic is also a cause for concern, given that this has knock-on effects for the entire clinic. Again, two responses are required. One is to address those reasons that are avoidable but another is to identify situations in which lateness is almost inevitable, such as when junior staff must visit the ward first thing in the morning, and to adjust the appointment times accordingly.

The results show widespread variation in the length of time spent with patients by different consultants. On the basis of this sample, it is not possible to ascertain whether this is due to the characteristics of the patients seen, given the very different case mixes, or of the surgeons, although it seems reasonable to attribute at least some of the variation to the surgeons given other evidence of considerable disagreement about the role of out-patient follow-up for common surgical procedures [12]. What is clear, however, is that scheduling a standard duration for an appointment across a hospital and failing to take account of this variation is inappropriate.

One of the main reasons for undertaking this study was to examine the implications of the Patient's Charter for outpatient clinics. As noted earlier, the targets in the Charter provide a strong incentive to see more patients at each clinic. At least in this hospital, such a policy is not sustainable, as the amount of time patients spend with doctors, even with clinics over-running their scheduled times, is so short as to question the value of many attendances.

Perhaps the most important implication is the need for outpatient clinics to be managed actively, with studies such as this undertaken from time to time and the findings acted upon.

Acknowledgement

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References


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