Self-referral of symptoms (SOS) follow-up system of appointments for patients with uncertain diagnoses in rheumatology out-patients

A. V. Pace, C. M. Dowson and P. T. Dawes

Objective. Clinical features in rheumatological conditions often fluctuate with time and this may cause difficulty when evaluating patients whose symptoms or signs do not coincide with their initial rheumatology visit. The aim of this study was to evaluate the outcome of a follow-up system whereby patients with uncertain rheumatological diagnoses at their initial assessment are given easy and rapid access to a rheumatology review.

Method. We studied the outcome of SOS (self-referral of symptoms) appointments offered to patients over a 44-month period in one consultant’s clinic at the Staffordshire Rheumatology Centre. The reattendance rates and diagnoses at the initial and subsequent visits were evaluated over a mean period of 26.3 months (range 7–64 months).

Results. Thirty-seven patients (23 males, 14 females) were offered SOS appointments during the period studied. At the initial assessment, a provisional diagnosis was recorded for 29 patients (78.4%), whereas the diagnosis was unclear for the other eight patients. At the end of the study period, 10 patients (27%) had requested specialist review via the SOS system after a mean period of 6.8 months (1–19 months). The diagnosis remained unchanged in 8 of the 10 reattenders, whereas the diagnosis was revised in two patients. None of these patients, however, developed an inflammatory arthritis.

Conclusion. We suggest that an SOS system of appointments may be a feasible and practical method to follow up patients who have uncertain rheumatological diagnoses at their initial visit. This follow-up system may not easily fit into the current outpatient reforms being implemented in the National Health Service, yet this form of specialist follow-up seems clinically essential for some forms of disease management. The requirements necessary to operate such a system as well as the envisaged pros and cons for the patient and for the rheumatologist are discussed.

Key words: Self-referral, Musculoskeletal diseases, Accessibility of health-care.

The natural history and progression of musculoskeletal conditions varies, with a pattern of clinical symptoms and signs that change in severity over time. Some red-flag conditions, such as malignancy, are severe and progressive. Others, such as gout, are episodic, fluctuating or self-limiting. The severity of symptoms and signs may not always coincide with the initial or subsequent visit to a rheumatologist and hence the attending physician relies on an accurate account of symptoms as described by the patient. Symptoms such as joint swelling can be misleading as subjective, rather than objective, swelling is unlikely to represent significant pathology. Various patient factors, such as intellect, memory and communication skills, will influence the description of symptoms and may affect the ability of the clinician to reach an accurate diagnosis. These difficulties may be overcome by offering patients the opportunity to be assessed at the time when their symptoms are present or severe. Patients prefer a health system which facilitates rapid access to a specialist assessment and this appears to increase the satisfaction and confidence in that rheumatology department [1, 3]. Some rheumatology centres have adopted patient self-referral to a rheumatologist when their symptoms are severe, usually in patients with known rheumatoid arthritis [1–3]. Its use for patients with other rheumatological conditions or for patients with an uncertain clinical diagnosis has not been studied previously. The aim of this study was to evaluate the outcome of acute self-referral appointments of patients with an uncertain diagnosis (self-referral of symptoms, SOS). We describe the outcome of a pilot study to evaluate this type of access.

Method

The study included all patients attending a consultant clinic at the Staffordshire Rheumatology Centre over a 44-month period from April 2000 to December 2003. Patients were given SOS appointments, rather than a routine follow-up appointment, if there was an absence of signs despite symptoms suggestive of pathology and where there was diagnostic uncertainty. Patients were given a slip of paper with a secretary’s direct telephone number. Secretaries were able to access letters from the patients’ initial appointment via the departmental information technology. If the secretary was unavailable, they were asked to use the patients’ telephone helpline and state that they required an SOS appointment because their symptoms (e.g. joint swelling) were now present.

We evaluated whether patients given SOS access contacted the department as described or attended the hospital through a different referral route. Details of their reattendance at the centre were recorded up until July 2004. The diagnoses in reattenders...
were evaluated. A comparison was made between the provisional diagnoses given at the initial visit and those made on reattending the centre. Whether patients had developed evidence of inflammatory arthritis was of particular interest.

Results

Thirty-seven patients (23 males, 14 females) were given SOS appointments during the period from April 2000 to December 2003. Their ages ranged from 12 to 80 yr, with a mean of 46.2 yr (39.6 yr for females, 50.1 yr for males). Most patients (78.3%) were given an SOS appointment after only one initial clinic visit. Duration of their symptoms ranged from 6 weeks to more than 10 yr (mean 38.5 months). The mode of presentation was evenly distributed between monoarticular (38%), oligoarticular (30%) and generalized (32%) symptoms. Knee pain featured in the symptomatology of 21 (56.8%) patients. At the initial assessment, a provisional diagnosis was recorded for 29 patients (78.4%), whereas the diagnosis was unclear for the other eight patients. By the end of July 2004, the follow-up period for the patients studied potentially ranged from 7 to 64 months (mean 26.3 months).

A total of 10 patients (27%) reattended the centre. The SOS appointments were requested by patients after a mean of 6.8 months (range 1–19 months) following their last routine visit. No correlation was found between gender, mode of presentation or provisional diagnosis between the reattenders and the non-attenders. The majority of the reattenders used the designated contact numbers but two returned to their general practitioner in order to regain access for a specialist assessment. All 10 patients were seen by a specialist within 2 days, irrespective of contact method.

At the reassessment visit, the diagnosis remained unchanged for 8 of the 10 reattenders. The diagnosis was revised for two patients. None of these patients were considered to have developed an inflammatory arthritis. Five of the 10 patients were discharged again after one reassessment visit. Four patients required further out-patient visits before being discharged, because of diagnostic difficulty or severity of symptoms. Ongoing follow-up visits were required for only one patient (Table 1).

Discussion

This SOS appointment system provides symptomatic patients with timely access to a rheumatologist, and may be a more appropriate and efficient way of managing acute problems in patients suspected of having conditions such as crystal arthropathies and soft tissue problems. A considerable number of clinic appointments would have been required if all the patients originally seen were given routine follow-up appointments after their initial assessment. The practice of arranging SOS appointments in appropriate cases saves clinic time and releases appointment slots for patients who are more in need of frequent follow-up visits. This method of ensuring appropriate timely follow-up for some patients may not be in accordance with planned National Health Service reforms on out-patient booking, but it is hoped that local flexibility can be maintained to ensure that novel and efficient services are not compromised.

Patient acceptance of such a self-referral system is likely to be high as it provides them with quick access to specialist assessment at the time when they have symptoms. Their time is not wasted attending routine appointments when they are asymptomatic. For patients without significant pathology, the avoidance of frequent or regular follow-up appointments may help to provide reassurance that their condition is not serious and may also empower them in the management of their symptoms. Similarly, SOS appointments are highly likely to be welcomed by rheumatologists because assessing clinical features in patients who are asymptomatic increases the positive yield from investigations and increases diagnostic accuracy. The envisaged advantages and disadvantages of this system are outlined in Table 2.
Selection of patients suitable for SOS access needs careful consideration to ensure the system is used appropriately. SOS appointments should be offered to patients in situations in which there is diagnostic uncertainty because of paucity of clinical features at the initial assessment. Similarly, confirmation of a suspected diagnosis is facilitated in conditions that follow an episodic course, such as gout or palindromic rheumatism. In patients who are suspected of having self-limiting conditions at their initial assessment, an SOS system provides the rheumatologist with the advantages of discharging the patient whilst also reassuring the patient of early review when and if necessary (Table 3). One of our concerns was that this process of self-referral may be abused; however, our experience indicates that this will not be the case. Our results were reassuring in that no patients suspected of preclinical or very early inflammatory arthritis actually developed sustained inflammatory disease. This system may also be extended to patients who have an established diagnosis, e.g. rheumatoid arthritis or systemic lupus erythematosus, and have been taught to use the system when significant symptoms related to their condition occur. In the longer term, this may allow the interval between routine out-patient appointments to be lengthened [3].

An SOS appointment system requires the presence of supporting services. A 24h contact system needs to be available to allow reporting of symptoms. A 24h telephone helpline, the use of secretaries’ direct numbers and contact telephone numbers of a designated ward are all means which may be readily available to patients to order to report their symptoms. Trained personnel handling such calls will then organize an assessment with a rheumatologist within 24h. An on-call rheumatology service is therefore required to ensure assessment of patients preferably within this period, and complements the needs of patients with other rheumatological emergencies. Clinic facilities and access to patients’ medical notes or electronic patient records should be available to allow rapid and efficient assessment of patients utilising the SOS system (Table 4).

The demand of rheumatological emergencies on acute services has often been ignored. However, this has changed in recent years and expertise is required because of factors such as demography, increased patient awareness of rheumatological conditions, the need for early assessment of inflammatory arthritis and potential problems arising from the use of biological treatments. The workload generated from patients with rheumatological conditions requires reorganization of services [4]. Adopting a practice of SOS appointments for new patients may contribute to this. Our study suggests that this is a feasible approach to managing out-patient workload and, when used for selected patients and with the appropriate support, may be extended for use in a wider range of conditions.

The authors have declared no conflicts of interest.

References

### Table 3. Indications to offer a patient an SOS appointment

<table>
<thead>
<tr>
<th>Indications</th>
<th>Key messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic uncertainty remains due to the absence of clinical signs</td>
<td>Support for patient self-referral and allows rapid assessment of symptoms when these are present.</td>
</tr>
<tr>
<td>Intervention is necessary only when symptomatic (e.g. epicondylitis, tendonitis, fasciitis)</td>
<td></td>
</tr>
<tr>
<td>Confirmation of a provisional diagnosis is required (e.g. crystal arthritis, periodic syndromes)</td>
<td></td>
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<tr>
<td>A self-limiting condition is strongly suspected at the initial assessment</td>
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</tbody>
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### Table 4. Requirements necessary to run an SOS appointment system

<table>
<thead>
<tr>
<th>Key messages</th>
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<tbody>
<tr>
<td>Patient agreement</td>
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<tr>
<td>24-h contact system</td>
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<tr>
<td>Clear instructions for patients on methods of contact</td>
</tr>
<tr>
<td>Specialist availability, preferably within 24 h of patient contact</td>
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<tr>
<td>Clinic facilities</td>
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<tr>
<td>Instant access to patients’ hospital records</td>
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</table>

**Rheumatology**

- An SOS system of appointments offers the facility of patient self-referral and allows rapid assessment of symptoms when these are present.
- Such a system may be a feasible and practical approach to managing rheumatology out-patient workload.