

## IN PRACTICE

## Triage up front

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**Objectives:** To assess the effectiveness of a newly developed triage tool to provide urgent access to genitourinary medicine (GUM) for patients. To appraise its value in compiling statistics for patients attending the department without appointments or those telephoning for advice.

**Method:** Retrospective evaluation of triage forms completed by healthcare professional (HCP). Randomly selected triage forms completed for 250 male and 250 female patients attending a GUM clinic over a 3 month period.

**Result:** Patients attending or telephoning with acute symptoms such as ulceration or abdominal pain, or as a result of sexual assault were offered same day or next day appointments in 100% of cases. However, for untreated chlamydial infection, testicular pain, and male urethritis the success rate fell to between 54–86%.

**Conclusion:** The new form is easy to complete and allows a more structured triage of patients. It provides a standardised template for staff employed in GUM triage and facilitates accurate documentation and data collection of this important activity. All targets are not being met and patient distress is not adequately addressed or recorded to help service planning. However, accountable standardised data can be collected, which is important in defining the extent of the service and provides useful information for commissioners.

The continuing increase in sexually transmitted infections (STIs) throughout the United Kingdom has resulted in enormous pressures on genitourinary medicine (GUM). Many clinics are unable to cope with the numbers attending, and waiting lists throughout the United Kingdom are increasing daily. Within our own department a waiting time of 14 days is routine and we are aware that there are longer waiting times at clinics elsewhere.

In 1986 the minister for health recommended that all patients suspected of having an STI should be seen within 48 hours. This recommendation has been reaffirmed over the past several years (Monks Report 1988;<sup>1</sup> Health Select Committee Report 2003<sup>2</sup>). Although STIs declined in the early 1990s the subsequent rapid escalation in infection and patient demand with, until recently, static resources have stretched GUM services to the limit. It is clear that we do not, and are unlikely to, have the resources needed to meet this target and should consider all options in an effort to meet the increasing demand in a manner which best addresses the urgency of the situation. To address this different systems of triage have been introduced in an attempt to ameliorate the problem, with varying levels of success. There is little scope for those operating appointment systems to incorporate urgent cases and, inevitably, those attending following triage are seen in addition to those in already full clinics, further exacerbating an already unsatisfactory situation. The authors found that very little published information was available on triage systems utilised elsewhere and therefore devised a system to produce a numerical indicator on which to base triage urgency. In addition, it was recognised that the workload generated by triage or providing information and advice was not adequately recorded. The amount of time expended on such activities can be considerable but has not been provided to managers or commissioners when resources are considered or funding issues reviewed.

We introduced and piloted a new quantitative triage form for 3 months early in 2003. During this time 210 patients were processed, with 74 requiring telephone advice but no appointment. Following its success and after a review of the triage documentation, it was decided to undertake a formal

audit using a more standardised and user friendly form to assess the numbers of patients using triage and its effectiveness.

## METHODS

Nurses, health advisers, and doctors from the department revised the triage form (based on feedback from the pilot) and, with clerical staff, reviewed the arrangements for collecting data. They devised a list of conditions and situations allocating points to try to define objectively and uniformly the level of urgency. Points could be added together to arrive at a final total and individual scores ranged from –2 to +14 (table 1). As the form cannot cover all situations a comments box was included which, in addition, provided information to allow further revisions. The intention of the system was to ensure that those patients with painful symptoms or at high risk of STIs were seen as soon as possible, thereby providing treatment to ameliorate symptoms and to reduce the risk of further spread of infection.

Staff were made aware that the form was not to be used as a diagnostic tool, rather a method of assessing the urgency of patient symptoms or GUM need.

The clinical nurse specialist and three senior nursing sisters provided regular training sessions in triage to other members of the GUM team. Monthly meetings were held when staff were able to voice any concerns regarding triage and its documentation. Regular audit of triage documentation was performed by the clinical nurse specialist.

It was agreed that those patients who scored 14 or above were to be seen at the same or next session, and those scoring 5–13 seen within 2–3 days. Those patients scoring less than 5 were to be offered routine appointments. Potential problems in under 16 year olds accessing services were highlighted during the preliminary multidisciplinary meetings. It was felt that this age group could have particular difficulties in attending GUM clinics. Staff therefore felt that any call from someone under 16 or a youth worker/GP/teacher, etc,

**Abbreviations:** GUM, genitourinary medicine; HCP, healthcare professional; STIs, sexually transmitted infections

**Table 1** Triage priority assessment

Date:	HCP:
Appointment given:	Telephone/walk-in patient
<b>Score</b>	<b>Condition</b>
14	Untreated chlamydia, gonorrhoea, syphilis, unmanaged HIV infection
14	Male discharge (rectal/urethral)/dysuria
14	Genital ulceration
14	STI risk with recent low abdominal pain
14	Sexual assault within past 12 weeks
14	Review HIV patient with new symptoms
14	Severe acute genital pain (or advise A and E assessment if more appropriate)
14	Acute testicular pain/swelling
14	Adverse drug reaction (patient on medication provided by us).
12	Contact of HIV or syphilis
8	Sexual contact of gonorrhoea, chlamydia, trichomoniasis, hepatitis A/B
6	Needlestick/trauma infection concern >4 weeks. If earlier advise A&E assessment.
5	HIV infection (new/transferred in) or appointment for routine review
5	Leaving UK unable to return (use discretion)
5	Phone call from HCP/youth worker (<16 year old)
4	Genital lumps and bumps (warts/molluscum contagiosum)
4	Vaginal discharge/irritation—eg, candidiasis/bacterial vaginosis
4	Perigenital spots/rash or irritation (balanitis, lice, scabies)
4	Extreme distress/distance travelled/school timetable, etc
0	Worried well/STI risk
-2	Patient unable to wait (walk in only)
	Clinic capacity (yes or no)
Total	
Comments: (contact no, etc)	

Score: 14 or above—same day or next day appointment required; 5–13—see within 2–3 days; 4 or less—next routine appointment.

expressing concerns about an under 16 should be allocated a baseline 5 points. Scores would then be added for individual situations. Strenuous efforts were made to see patients from this age group in a timely manner.

Owing to the relatively small proportion of HIV positive patients attending the department it was felt that nothing would be gained by implementing two triage systems, one for HIV and one for GUM conditions. They were therefore included in the single triage system.

Reception staff identified patients requiring triage. All patients telephoning or walking into the department were offered the next routine appointment. Any patient who asked for an earlier appointment, who expressed any concerns about the delay in gaining an appointment, or who asked to speak to a healthcare professional (HCP) were referred to the

triage nurse. The triage nurse also took all calls from other HCPs. Patients attending with a pre-booked appointment were given priority and triage patients were advised that they would have to wait to be seen. Those who had been triaged were invited to attend at either 0900 or 1400 each day at the start of the clinic sessions when they would be slotted into the clinic workload. Most were seen within 60–90 minutes. However, if clinic capacity existed patients were seen immediately. As triage was predominantly carried out by nursing staff, with doctors triaging only on an opportunistic basis, the audit was limited to this professional group.

Five hundred triage forms from 250 male and 250 female patients were randomly selected during a 3 month period between 1 June and 31 August 2003. Documentation of patient symptoms based on points scored using the triage form and the time between triage and attendance was assessed.

**RESULTS**

During the 3 month survey period 2520 patients attended with a new episode and 982 were seen following triage. In addition, telephone advice was given to 130 people who did not need to attend, giving a total of 1112 triage episodes. From those attending following triage 250 female and 250 male patient notes were selected at random for analysis. The mean age for men was 33 years and for women 26 years. Most attended following telephone triage, 82% (205/250) women and 76% (190/250) men. Of those given a triage appointment 13% (66/500) failed to attend. Doctors and nurses work closely together on the unit and patients could be seen by either. Those patients with problems identified outside our nursing protocols on the examination of new patients (for example, low abdominal pain) would be referred to a doctor for assessment. As all members of the nursing team performed triage, patients were often examined by the nurse who had initially triaged them.

**Telephone advice only**

During the survey period telephone calls for advice were received from 53 women and 77 men. In addition to the public, they included calls from professionals (including general practitioners, practice nurses, police officers, the rape crisis centre, and the prison service). The majority, about 95%, were from the general public. The range of advice covered a broad spectrum but was mostly about sexually transmitted infections.

**Triage results**

An analysis of the urgent conditions triaged and our response in accommodating them is shown in table 2.

**Table 2** Results of triage for those scoring 5 or more points for specific situations only

Situation	Number diagnosed	Appointment within target	Percentage
<b>14 points or over</b>			
Genital ulceration	55	55	100
Women with abdominal pain	12	12	100
Sexual assault (male and female)	9	9	100
Untreated chlamydia	28	24	86
Testicular pain	13*	7	54
Male discharge/dysuria	44†	29	66
<b>5–13 points</b>			
Contact of sexually transmitted infection	150‡	116	77

\*Five seen in 2 days and one in 4 days.  
 †Seven seen in 2 days, six in 3 days, and two in 4 days.  
 ‡12 seen in 4 days, 12 in 5 days, five in 6 days, one in 7 days, and four in 10 days.  
 NB: scores made up from multiple points have not been included.

### Patients failing to attend

Despite being offered appointments within the agreed time-span 2% (3/157) patients who had been allocated 14 or more points and 11% (6/53) patients with 5–12 points failed to attend. A further 22% (57/290) of patients allocated a routine appointment following triage also failed to attend.

No correlation was found between failure to attend and the length of time patients were asked to wait for an appointment. Evaluation of the figures collected shows that the mean waiting time for those who failed to attend was 5.8 days, with a median of 5 days.

### Patients seen earlier than triage guidelines recommend

A total of 25/59 female and 13/45 males identified as chlamydia contacts were seen on the same day rather than within the 2–3 days recommended. A further five females classed as worried well, five with a vaginal discharge, and two with genital warts were seen on the same day or next. In men, three patients who had genital warts and one with a genital rash were seen on the same day or next. This gave a total of 54 patients (11%) seen more quickly than guidelines suggested. These data would suggest that there was clinic capacity on these days which was not recorded on the forms. Alternatively, inappropriate triage decisions may have been made by the HCP.

## DISCUSSION

Before the development of this form, triage was often performed in a subjective manner, with patients gaining urgent access depending upon the HCP's expertise and experience rather than presenting symptoms. No clear documented evidence of workload relating to triage was maintained. Those patients who walked into the department tended to be seen more quickly following triage than those who telephoned for an appointment, creating inequality. This highlights the difficulty experienced by the HCP in refusing access when confronted with a distressed or agitated patient. Although a section is available on the triage form to document patient distress or to indicate when there is clinic capacity, this study demonstrated that it was not being routinely documented by the HCP. However, at this time it has not been possible to ascertain the reason why, other than healthcare professionals neglecting to complete it.

Our system has helped identify those patients with urgent symptoms and has ensured rapid assessment and treatment. The form was developed using a numbering system that permitted quantitative assessment of those with multiple issues relating to GUM. Individual boxes may be ticked that will result in a cumulative figure that indicates the urgency of the situation.

It has further highlighted areas where targets are not being met. Men with dysuria and discharge or testicular pain, and both men and women presenting as contacts of chlamydia are often required to wait longer for assessment than recommended. Unfortunately it has not been possible to identify from this study why they were not seen at the appropriate time. Those people least likely to be offered triage appointments within the agreed timescale are those men complaining of testicular pain. Therefore, the ability of HCPs to obtain accurate information regarding symptoms and the ability to prioritise their importance must be addressed by further training. The development of this form has facilitated the ease with which such training issues can be identified.

It has also identified the importance of providing advice to those worried well. While some telephone calls for advice may seem unimportant or even bizarre, it is likely that if callers had not been able to access an HCP by telephone, they

would have made an appointment to attend the clinic adding, unnecessarily, to an already heavy workload.

There are a number of confounding factors that influence when people are seen. Some triage was carried out late on Friday afternoons when the patient may have been unable to attend the clinic before it closed. This obviously necessitates a wait of longer than recommended which is reflected in the data obtained during this study. Other patients, very recently exposed to an infection risk, are recommended to wait longer for an appointment in order to ensure that a clinical assessment and testing will be of value. Although there is a lack of data as to the earliest time that STI screening should be carried out following a risk, on the advice of colleagues in microbiology this department has agreed that this should normally begin at least 7 days after exposure. Many patients find it difficult to attend the department quickly if they have other commitments such as work, childcare responsibilities, etc, and individual preference must be taken into account if we are to consider the patient's needs in a holistic manner. It is accepted that patients who are able to articulate the classic symptoms of acute STIs and are insistent about the need to be seen urgently are most likely to gain urgent access via triage.<sup>3</sup> During this audit, only patients who queried the appointments offered by reception staff or who asked to speak directly to an HCP were able to access the triage system, and this is clearly an anomaly that requires further exploration. This study only addresses our response to the information provided by patients and its evaluation. It does not identify the clinical findings of those triaged and how they correlate with the information obtained at triage. This aspect of the audit is of high importance if we are to acknowledge that patients with acute symptoms may fail to gain access through poor triaging, or being denied the opportunity to speak to a triage nurse. Further audit will also highlight those situations where patients with previous knowledge of the system are able potentially to manipulate it to gain rapid access. It is acknowledged that a weakness of this study is its inability to identify those who have previously been turned away from the department and then re-triaged by another HCP and allowed urgent access. As patients may provide different personal information this is impossible to assess accurately. Furthermore, the random selection of records did not allow us to differentiate between those who were triaged by telephone or those who walked in to the clinic. While it is acknowledged that this may introduce bias, it is thought unlikely to be of significance. It is intended that the above points will form the basis of a future study.

There have been many issues raised relating to the use of triage. It is generally agreed that triage should be performed by qualified nurses or health advisers<sup>4</sup> whenever possible. The use of a qualified HCP to provide a triage service is obviously the most appropriate way to ensure consistent and informed triage. Within the GUM department at Newcastle General Hospital the recent allocation of Department of Health resources to improve patient access has been used to employ more nursing staff. Each nurse will be trained in triage and it is envisaged that a full time triage service will be in place in the near future. However, it is apparent that some clinics are under so much pressure with limited resources in respect of staff, time, or restricted facilities that reception/administrative staff are performing this function.<sup>5</sup> While it is acknowledged that our triage form may not be appropriate for all situations it is hoped that it will provide the concept and a structure for both HCPs and administrative staff who are required to perform triage in their departments.

Since the initial pilot, the improved documentation has revealed a more than fourfold increase in work levels relating to triage. Therefore, without the ability to collate this information we could not properly represent this activity to

our commissioners. The accountability of our service to consumers and commissioners is of paramount importance and this process which quantifies yet provides quality data on the vital process of triage and advice provision, often unrecognised, should help to inform. This approach helps to remove subjectivity related to triage. Presenting accurate data on the accessibility of GUM services in a sensitive efficient manner is essential when decisions are being made about commissioning. If these data are not available then the consequence may be inadequate funding and resources that will severely hinder any efforts to meet the sexual health needs of patients.

It is hoped that the development of this form will benefit patients by providing more timely and appropriate triage, while at the same time providing comprehensive figures relating to workload within GUM for presentation to commissioners. The wide adoption of such a system could

set standards for providing access which may help understaffed centres secure more funding.

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## ECHO

### Neurosyphilis in the modern era

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Please visit the Sexually Transmitted Infections website [www.stijournal.com] for a link to the full text of this article.

**Objective:** To review the nature of the presentation of neurosyphilis, the value of diagnostic tests, and the classification of the disease.

**Methods:** A retrospective review was carried out of the records of patients who had been identified as possible cases of neurosyphilis by a positive FTA-abs test in the CSF. The review extended over 10 years at a single hospital which served a population of mixed ancestry in a defined catchment area in the Western Cape province of South Africa. Patients were placed in predefined diagnostic categories, and clinical, radiological, and laboratory features were assessed.

**Results:** 161 patients met diagnostic criteria for neurosyphilis: 82 presented with combinations of delirium and dementia and other neuropsychiatric conditions, and the remainder had typical presentations such as stroke (24), spinal cord disease (15), and seizures (14). The average age of presentation ranged from 35.9 to 42.6 years in the different categories of neurosyphilis. Of those followed up, 77% had residual deficits from their initial illness. Cerebrospinal fluid (CSF) VDRL was positive in 73% of cases.

**Conclusions:** The diagnosis of neurosyphilis can be made with reasonable certainty if there is an appropriate neuropsychiatric syndrome associated with a positive CSF VDRL. If the VDRL is negative, a positive FTA-abs in an appropriate clinical setting, associated with raised CSF cell count, protein, or IgG index, is a useful method of identifying neurosyphilis. Tabes dorsalis has become uncommon, but this is likely to be the only manifestation of neurosyphilis that has been altered during the antibiotic era.

▲ *Journal of Neurology, Neurosurgery, and Psychiatry* 2004;**75**:1727–1730.