

# STI services in the United Kingdom: how shall we cope?

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**G**enitourinary medicine (GUM) services are consistently overstretched.<sup>1,2</sup> At St Thomas' Hospital, and at our neighbour Kings College Hospital, the GUM service runs as an open access clinic (seeing the majority of patients without an appointment). The time to be seen in these clinics is frequently more than 3 hours and 4.5 hours, respectively.<sup>3</sup> This is in the context of a local and national increase in all sexually transmitted infections (STIs),<sup>4</sup> exacerbated by the combination of very little increase in resource and a government imperative in the form of the National Sexual Health Strategy.<sup>5</sup> There is demonstrably an unmet need for sexual health services in our local community. The workload at Guy's and St Thomas' has increased by 10.1% between 2000 and 2002 despite an alteration in the ratio of new to follow up patient visits from 1.06 to 1.51. How can matters be improved? At the most basic level, there are four possible options:

- Make each consultation shorter
- Reduce the number of visits per patient
- Delegate the work to other providers, or
- Reduce the overall level of STIs and hence demand.

Leaving aside the last suggestion, how can we change practice to meet the other options?

There is a surprisingly poor evidence base for much of what we have traditionally done in our clinics. We decided, as an "old hand in the business" (senior consultant) and a "new pair of eyes" (first year specialist registrar), to look critically at all aspects of the GUM clinic service and arrive at what we hope may be useful or, at the very least, thought provoking suggestions. We are writing this from our own viewpoint of working in a London teaching hospital with a heavy workload, very high prevalence of STIs, and pressure from the HIV service. Our aim is to stimulate service development. We are encouraging debate in our department and auditing our current practices and the changes that we have implemented. We have included any findings already accrued as part of this process.

## PRINCIPLES

We began by constructing several guiding principles:

- The core role of the GUM service is to diagnose and treat STIs to the greater good for the public health at large.
- Most of the patients seen in GUM clinics have relatively straightforward problems which are more "primary care" in nature and can be managed by a variety of healthcare professionals. A significant number of clinical problems, however, do require expertise and

would be classified as "secondary" or "tertiary" in nature.

- We have to treat our patients as adults and let them take responsibility for their own health and decide on the way they wish to use our services.
- Our patients are embracing new technology and we should be using it as much as possible in clinical practice too.

## MAKING CONSULTATIONS SHORTER

### The asymptomatic patient

#### The history

We need to decide if we are going to offer all tests to all patients. If not we will need to assess specific risks in order to select appropriate further tests. This can be done by means of a patient questionnaire or set of screening questions. Then if a patient is truly asymptomatic and requesting a screen for STIs we should consider what else we need to know. We may not need to ask the full sexual history in all cases; this is probably only relevant in the context of an STI diagnosis. Then, if an STI is diagnosed, the conversation can be more directed and the relevance of what might seem intrusive questions will be clearer to the patient.

#### The examination

There is dubious benefit in examining an asymptomatic patient. The only likely finding that would be relevant to STI screening would be an unrecognised genital wart. It is arguable whether a benign, self limiting, poorly treatable and common condition such as a genital wart, benefits from detection (see below).

### The tests

#### Microscopy

Microscopy in GUM clinics is usually performed to detect gonorrhoea (GC), trichomonas (TV), candida, and bacterial vaginosis (BV). There is little benefit detecting candida if the patient has no symptoms or in diagnosing bacterial vaginosis, except, perhaps, if she is pregnant. In 1994 Andrews *et al*<sup>6</sup> showed that microscopy could be omitted in asymptomatic women. TV is sexually transmitted and sometimes asymptomatic and should be detected: but microscopy finds it in only 50–70% of culture positive women.<sup>7</sup>

Microscopy, even in the best hands, has a low sensitivity for diagnosing GC in women (51% in symptomatic women<sup>8</sup>); negative microscopy may lead to false reassurance of patient and staff. In our clinic the average staff hours to stain and then read one woman's cervical and vaginal slide is 4 minutes. If known contacts are excluded, GC, even in South London with the highest prevalence in the United Kingdom, is only found in one of 400 female clinic attenders (C Watson,

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Royal Sussex Hospital, Brighton, personal communication). Thus, it takes 26.7 staff hours to diagnose one unexpected case of GC. Our study over a 6 month period showed that all these women had their infection detected on culture, and all those not diagnosed by microscopy, or treated anyway at first visit, responded promptly to simple recall.

Urethral smears on asymptomatic men are unpopular with the patient, while the usefulness of the two glass urine tests has been questioned.<sup>9 10</sup> Microscopy in men for GC may be needed as a quality control (QC) measure for the laboratory. However, it would be hard to defend continuing this practice for QC alone.

In April 2002 our department introduced a male and female "asymptomatic" screen. This comprises a brief history by the doctor or nurse consultant; tests performed by a nurse (no microscopy except for TV); and a written list of the tests given to the patient. Any positive results are sent by post. A recent 3 month departmental audit has shown that 12% of our female patients are "asymptomatics" (S Day, St Thomas' Hospital, London, personal communication).

### *GC throat/rectal swabs for GC contacts*

It has been practice to screen contacts of GC with swabs from several sites. Recent audit of 338 cases of female contacts of GC showed that none had positive swabs on throat or rectal culture alone. We could thus limit swab sites to the urethra and the cervix for this group.<sup>11</sup>

### *Nucleic acid amplification tests*

Nucleic acid amplification tests (NAATs) on urine or self taken vulval swabs are no doubt the way forward in screening for GC and chlamydia. They avoid the costs and inconvenience of an examination.<sup>12</sup> The only limitation being the lack of a commercial test for TV.

### *Blood tests*

One of the most time consuming tests in the clinics is a blood test, the pretest discussion for HIV, explanation about syphilis, the taking of blood and labelling of bottles. The HIV test discussion should only require informed consent, backed up by written or video information. In order to promote HIV testing we must facilitate a speedier and more acceptable way, perhaps by embracing non-invasive methods of testing, such as the oral mucosal transudate tests.<sup>13</sup> This method, employed in a clinical setting, increases acceptability<sup>14</sup> and efficiency, and hence uptake.

There is a doctrine that routine syphilis testing prevents outbreaks. However, there is little evidence that screening asymptomatic patients for syphilis detects outbreaks, and none that it averts them. Outbreaks do not present as an incidental finding of positive results on screening: they present with symptomatic cases of infectious syphilis. There is currently a resurgence of infectious syphilis in the United Kingdom. A recent study has shown that it is within the homosexual male population that the largest relative increase in syphilis has occurred.<sup>15</sup> An audit in our clinic has shown that all cases of infectious syphilis either had symp-

toms, an identifiable high risk characteristic, or both (C Rodgers, personal communication).

Armed with adequate surveillance data on the current local prevalence of syphilis, we could hone the efficiency of our ability to detect the disease by targeting the groups at risk.

### **The symptomatic patient**

#### **The history**

If a patient has symptoms they will require more attention. We need to elucidate the symptoms, the risk of specific STIs, and, where relevant, of pregnancy. We do not need further details until we have a diagnosis.

#### **The examination**

Most symptomatic patients will need to be examined. It seems reasonable, however, to omit examination in a patient who is merely requesting treatment for a recurrence of their previously diagnosed herpes, BV, or thrush, for example.

#### **The tests**

Microscopy in symptomatic patients may also be warranted in men for NSU and GC (approximately 95% sensitivity and 99% specificity<sup>8</sup> for GC) and in women for candida and BV. Microscopy in women for GC and TV<sup>7</sup> has poor sensitivity and may not be cost effective even for symptomatic women if an accurate laboratory test is to be used as well; better, perhaps, to divert resources to more sensitive tests. This would delay diagnosis in a small number leading to a risk of onward transmission; routine advice should be to avoid unprotected sex until negative results are obtained.

## **REDUCING THE NUMBER OF PATIENT VISITS**

### **Follow up visits**

Follow up visits for tests of cure (TOC) may be unnecessary.<sup>9</sup> We know our drugs work and we know most of those with failed treatment have been reinfected. Reinfection is a separate and important issue, but if we are trying to detect this then we need evidence for how best to do it. The patient must take responsibility to seek help if they have been at repeat risk.

### **Wart treatments**

Genital warts are a bit of an industry; wart treatment seems to require numerous visits, despite the use of podophyllotoxin and imiquimod creams. Frank genital warts are a benign, self limiting condition, not linked to cancer, and mainly a cosmetic problem. The treatment, whatever is used, has a clearance rate of the visible warts of 30–80% and up to a 60% recurrence rate.<sup>16</sup> There is also little evidence that treating warts limits the duration of host human papillomavirus (HPV) carriage.<sup>17</sup> The number of visits is greatly reduced by the use of modern treatments but they could be further reduced if patients who believe the warts have gone are not brought back routinely for examination. By spending so much time and effort, we may risk causing more psychological damage than any caused by the warts themselves, which are often an asymptomatic incidental finding (up to 30% in one study<sup>16</sup>). There may even be

justification for not treating asymptomatic warts at all in some patients.

### Giving results

Many clinics now recognise that to ask the patient to return in person for results is time consuming and expensive for them and for us.

Patients should be encouraged to decide how they want to get their results and we should be flexible about the method. Having established their preferred mode of contact, we can generate standard electronic letters, emails, or text messages, attaching a relevant information leaflet, clinic website, health adviser's email address, or dedicated helpline details. Even when results are negative, such processes may help in increasing awareness of STIs and sexual health matters.

In the case of an HIV result many clinicians remain reluctant to abandon giving the result in person. However, in these days of patient choice we believe it is patronising to insist that they receive their results in person. Provided they have understood the implications of a result, they should be encouraged to choose to receive it in the way they want, perhaps over the phone, at home, in the company of their loved ones. Options offered should always, however, include returning to the clinic.

In time many patients may wish to log on to the hospital results service to obtain their own results without involving the clinic at all.

### Confidentiality

Confidentiality is essential in GUM and we must provide it to ensure patients continue to trust and access GUM clinics. We also need to ensure that any changes we make have the agreement of the trust Caldicott guardian. However, many patients have views on the level of confidentiality that they want. For example one of us (CB) already communicates results and undertakes simple consultations with her HIV patients by email. The patients are aware that email communication (as indeed with letters) may not be entirely safe but are prepared to take the risk for the convenience it brings them. In a 6 month period from August 2002 to February 2003, 11/78 (14%) of CB's regular attenders have taken advantage of this facility.

Other imaginative uses of information technology (IT) links and phone lines can be used to provide online advice to those who have never attended the clinic. This will help with triage and avoid unnecessary or inappropriate visits.

Traditionally, GUM clinics do not routinely contact the patient's general practitioner (GP), but in practice most patients, when asked, are happy for us to write. An opt-out policy, routinely writing to the GP unless the patient declines, would improve sexual health management in primary care: the GPs would be aware of their STI management and able to continue it if necessary; a letter might prompt the GP to inquire about the patient's sexual health in the future, and an informative communication would be educative too. We recognise resource implications for the clinic's secretarial staffing, but imaginative use of IT and standard email letters could obviate much of this cost.

## GETTING THE WORK DONE BY SOMEONE ELSE

### Changing the roles of clinic staff

Many clinics are reviewing how each post can be used to the full. To cover the less specialised duties of nurses, healthcare assistants are acting as chaperones and taking simple tests. Trained nurses managing the routine problems and dispensing according to patient group directions can reduce the need for patients to see a doctor.

Senior practitioners should ideally see all complicated problems. This benefits the clinic by delivering more appropriate, often cheaper, care and reducing repeat visits. In larger units a good model could be consultant led specialist clinics taking referrals from nurse practitioners, GPs, and the less experienced doctors in training. These specialist clinics run alongside routine ones so that the consultant (or senior SpR) can provide a true consulting service to those in his/her team who are seeing the routine, self referred, patients. It will have training and clinical governance spin offs.

Complementing this specialisation there must also be multiskilling of all clinic staff, such as training health advisers in phlebotomy. This is necessary to speed up the clinic visit and cut down the number of "handovers" between specialists that the patient experiences. Separating primary and secondary care completely is difficult in practice, however, especially in smaller units; it is assisted by robust, protocol driven, triage.

### General practices and family planning clinics

The National Sexual Health Strategy<sup>5</sup> will ensure that, alongside our services, many more GUM problems could be managed in a primary care setting. There is no threat that GUM services might close; they will have to remain open for self referral patients and for secondary referral of complex problems presenting to primary care. Primary care staff can be trained to provide a primary GUM service relatively easily once we all recognise what the minimum requirements are. GPs and practice nurses can follow the skeletal history taking outlined above. Using polymerase chain reaction (PCR) for chlamydia, GC (and in time, TV), healthcare assistants in the place of trained nurses can screen asymptomatic patients for STIs. The practice nurse or GP would become involved if the patient were symptomatic, as they would need to examine and, in women, take additional swabs for candida and BV. More complex cases still would be referred directly to the appropriate consultant-led specialist GUM clinic through an electronic booking system.

Imaginative information support will be needed if more complex cases are to be managed in primary care. To this end CB has piloted a "virtual support" service offering email advice to GPs but so far this has been poorly utilised. However, in Glasgow, a nurse led telephone help line for GPs has been well used.<sup>18</sup>

### The pharmacist

The pharmacist's role is changing.<sup>19</sup> Community pharmacists are in a unique position to help meet

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the needs of patients. They provide an advisory role in many specific areas of health and can already prescribe emergency contraception. Instant urinary NAAT testing kits for GC and chlamydia will lead to a further natural extension of the pharmacists' role with the tests being facilitated by them. In time, pharmacists will also be able to prescribe the remedy under a protocol driven directive—for example, azithromycin for a patient's positive chlamydia test.

## The patient

In due course patients may take their own sample and send it to the laboratory getting the result himself from the laboratory computer without involving a healthcare professional at all. Alternatively, they may obtain their result on home testing without even involving the hospital. In the event that an STI is identified, a GUM trained health professional will need to facilitate treatment, do the contact tracing, the health education, and the counselling. But this too can be through a learning package on the internet, with or without personal input, in the form of a virtual consultation, with the appropriate treatment obtained by post or from a pharmacy.

## CONCLUSION

There is enough sexual health work to keep everyone busy. In the context of the sexual health strategy a flexible continuum of care should ensure that patients have direct access to a number of outlets, including GUM clinics. However, besides providing this primary care service, GUM specialists need to reposition their skills to manage the more complex cases, and to deliver training and clinical governance support to family planning and GP services. This will enable primary care to deal with some less complex cases and refer appropriately. This is an exciting and rapidly changing time for our specialty. We, as well as others, have been looking at changing our practices<sup>20</sup> based on

good clinical, not historical, evidence. We must question everything we do to optimise our current STI services and provide the greatest good for the greatest number.

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## CONTRIBUTORS

CSB had the original idea for the project and the structure of the article, joint writing of the article; AM was responsible for additional contribution of ideas and joint writing of the article, research of ideas, and references.

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## Key messages

- The unmet need for sexual health services is a major problem.
- We need to analyse all we do in order to streamline our services for the greatest good for the greatest number.
- The GUM service should endeavour to reposition itself to provide "secondary" care by its senior staff and to use less expert providers within, and also outside, the clinic to deliver more "primary" care to those with simpler problems.
- All sexual health providers have to show imagination and innovation towards developing a continuum of care.
- The workload can only be tackled by employing, not only others providers, such as pharmacists, but also by imaginative use of IT and laboratory technologies.