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Chlamydial diagnostic services in the United Kingdom and Eire: current facilities and perceived needs

ROYAL COLLEGE OF PHYSICIANS COMMITTEE ON GENITOURINARY MEDICINE

SUMMARY Consultant genitourinary physicians were asked about facilities for chlamydial diagnosis and their perception of the need for this service. A wide range of facilities was available, but eight respondents had no access to a chlamydial diagnostic service (CDS). Epidemiological treatment was widely practised as a substitute for chlamydial diagnosis; some clinicians used a CDS as an adjunct to epidemiological treatment, but few clinicians based their treatment of female contacts of men with non-gonococcal urethritis on the results of a test for chlamydial infection. All respondents felt that a CDS was essential in some situations, although there was a difference of opinion about the extent of the CDS. Most clinicians believed that all or most women should be tested, but the need for testing men routinely was more controversial. Although a CDS is costly, many clinicians believed that early diagnosis was a cost effective procedure if it prevented the long term sequelae of pelvic inflammatory disease—ectopic pregnancy, chronic pelvic pain, and probably infertility.

Infection with *Chlamydia trachomatis* is probably the most common sexually transmitted disease in the western world. The range of disease caused by this organism ranges from the apparently trivial non-gonococcal urethritis (NGU) in men to pelvic inflammatory disease (PID), with its sequelae of infertility and ectopic pregnancy, in women.[1] The infection is often asymptomatic, especially in women, and may be associated with no abnormal physical signs.[2] Until recently diagnosis was based on tissue culture systems, which are laborious and expensive, so a chlamydial diagnostic service (CDS) has only been available to a limited number of clinics.[3] Furthermore, the need for a CDS has to some extent been obscured by the practice of epidemiological treatment, particularly in the management of sexual partners of men with NGU.

To assess the need for more widespread facilities, we sent a questionnaire to all consultant genitourinary physicians in the United Kingdom and Eire asking about facilities for chlamydial diagnosis and their perception of the need for a CDS.

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Methods

DESIGN OF QUESTIONNAIRE

The questionnaire was in three parts (fig), the first of which dealt with present facilities for chlamydial diagnosis. The second part comprised specific questions about the management of three instances in which the use of "epidemiological treatment" might obviate the need for a CDS. In the third part respondents were asked about the priority that they would give to chlamydial diagnosis when faced with a patient in a particular diagnostic category. The examples selected were those that we believed might be controversial.

TARGET POPULATION

The questionnaire was sent to consultant genitourinary physicians in the United Kingdom and Eire. Some microbiologists known to have a special interest in chlamydial infections were also invited to respond. The questionnaires were sent without identifying features so that respondents could reply anonymously if they wished.

Results

GENERAL

The questionnaire provoked varied responses. Some

Figure *Questionnaire about facilities for chlamydial diagnosis and perceived need for chlamydial diagnostic service*

Section 1

Please indicate which best describes the present service to your clinic:

1. Unrestricted access to chlamydial diagnostic service for all or most patients attending.
2. Chlamydial diagnostic service restricted by:
   (*a*) total number of specimens that may be submitted in a stated period,
   (*b*) gender (for all women),
   (*c*) diagnostic category.
3. No or minimal chlamydial diagnostic service.
4. Other (please explain).

Section 2

Please indicate your clinic policy about:

1. Epidemiological treatment of NGU contacts.
2. The incorporation of antichlamydial treatment into your regimen(s) for treating gonorrhoea.
3. Antibiotic "prophylaxis" for rape victims.

Section 3

Please indicate* for which of the following categories of patients you would request a chlamydial diagnosis if you did not have a complete service:

Men

1. Man with non-gonococcal urethritis (NGU),
2. Man with gonorrhoea,
3. Asymptomatic man without urethritis,
4. Man with symptoms of prostatic or scrotal pain in the absence of urethritis,
5. Homosexual man with pharyngitis,
6. Homosexual man with proctitis,
7. Male partner of woman with pelvic inflammatory disease,
8. Male partner of woman with vaginal discharge,
9. Man without urethritis but with genital warts.

Women

1. Female contact of man with NGU,
2. Female contact of man with gonorrhoea,
3. Woman with gonorrhoea,
4. Woman with "cervicitis",
5. Woman with vaginal discharge but no "cervicitis",
6. Prostitute,
7. Rape victim,
8. Pregnant woman,
9. Asymptomatic woman requesting "check up".

*Please use the following scale:

+ + +	Essential
+ +	Useful
+	Worth doing if test readily available
0	Not useful for patient management.

respondents felt that the concept of anything less than unrestricted access to a full CDS was unacceptable. Not all respondents completed the whole questionnaire, and some who had open access to a CDS did not complete the third section believing it to apply only to those who had a limited service. The major problem in data analysis resulted from the anonymity of some of the questionnaires. Some clinics that had more than one consultant sent one reply on behalf of the clinic and, in some cases each consultant replied. Conversely, some consultants who worked in more than one clinic replied for each clinic. Their opinions of the issues in parts 2 and 3 of the questionnaire were, therefore, duplicated. It was sometimes difficult to tell whether the questionnaire was completed on behalf of an individual or a clinic. In view of these difficulties, the results are presented in terms of the number of questionnaires or interpretable responses received.

RESPONSE RATE

The questionnaire was sent to 154 clinicians and 104 responses were obtained, but only 97 respondents completed section 3: four microbiologists also responded, one on behalf of the clinicians and three to say that they felt they had nothing to contribute to an essentially clinical exercise.

RESPONSE TO SECTION 1

Only eight respondents (five in England and one each in Scotland, Ireland, and the Channel Islands) indicated that they had no access to a CDS. Fifty respondents had unlimited access to a CDS. Those who were restricted used their service largely for women patients, eighteen clinics offering a service to all women with or without selected men. Fourteen respondents were limited by the number of specimens that could be submitted, and 14 limited the service to patients in certain diagnostic categories or in an undefined way. It was not always clear whether the restrictions were placed by the microbiologist or were self imposed by the clinician.

RESPONSE TO SECTION 2

There was overwhelming support for the epidemiological treatment of NGU contacts, 94 agreeing with this policy. Nevertheless, 42 believed that chlamydial diagnosis should still be offered to NGU contacts.

Only 22 respondents believed that gonorrhoea should be treated with an antichlamydial drug. Despite this, only 41 thought that chlamydial diagnosis was essential for the management of sexual contacts of patients with gonorrhoea and 47 thought it essential for managing patients with gonorrhoea.

Some respondents indicated that they rarely or

never saw rape victims. Only eight invariably, and three occasionally, gave antichlamydial treatment.

RESPONSE TO SECTION 3 (Table)

There was a much wider diversity of opinion about the management of men than about the management of women. Opinions about the need for a CDS for men with gonorrhoea were diverse, about a quarter of the respondents agreeing with each of the four options offered. In contrast, more than half the respondents thought it essential to test male partners of women with PID, and only two thought that this was of no value. As far as the opinions on testing women were concerned, there was a much greater degree of conformity, with differences being due largely to the emphasis rather than the absolute need. Thus in five out of the nine categories, more than half the respondents believed that a CDS was "essential". Surprisingly, there were some respondents who felt that a CDS had no value at all, even, for example, in the management of prostitutes or rape victims.

Discussion

Although problems with the interpretation of some of the questionnaires and the incomplete response have limited, to some extent, the accuracy of the data presented, it is possible to draw some conclusions. The time chosen for the survey may not have been the most opportune as new diagnostic techniques (immunofluorescence and enzyme linked immunosorbent assay (ELISA)), are now being introduced, and facilities are likely to change during the next year or two when these new techniques permit laboratories that have never offered a CDS to do so. Furthermore, the perceived (and perhaps real) increase in cost of the new techniques may restrict the number of specimens that can be received, particularly in laboratories switching from tissue culture.

Table *Importance given to chlamydial identification for patients in specific diagnostic categories by 97 respondents to Section 3 of questionnaire (figure)*

Diagnostic category†	*No of respondents scoring**			
	0	+	++	+++
Men:				
Non-gonococcal urethritis (NGU)	33	25	14	25
Gonorrhoea	23	24	27	23
No symptoms	45	30	15	7
Prostatic or scrotal pain	10	14	46	27
Pharyngitis	45	27	19	6
Proctitis	23	18	39	17
Partner with pelvic inflammatory disease	2	14	32	49
Partner with vaginal discharge	24	39	26	8
Genital warts	48	28	17	4
Women:				
Partner with NGU	15	20	20	42
Partner with gonorrhoea	8	17	31	41
Gonorrhoea	8	14	28	47
Cervicitis	1	8	27	61
Vaginal discharge	8	26	40	23
Prostitute	6	13	32	46
Rape victim	6	14	22	55
Pregnant	12	10	28	47
No symptoms	7	26	26	38

*0, not useful; +, worth doing if test readily available; ++, useful; +++, essential.
†See figure for exact indication.

Although most clinicians would like unrestricted access to a CDS, it is only reasonable to remember that a CDS competes with other needs for finite resources. As chlamydial diagnosis is not an automated process (unless there is improvement in ELISA kits),[4] expansion of limited services will not be simple. Clinicians will need to ask whether they want to use chlamydial diagnosis in the way that they use gonorrhoea diagnostic services (as a routine investigation for almost everyone at almost every visit) or as they use herpes diagnostic services (as an investigation to be used when clinical suspicion exists). The revenue and staffing consequences of the first approach will be enormous in large clinics.

The use of a CDS is complicated by being imposed on a setting in which epidemiological treatment is widely practised and in addition where a clinical marker of chlamydial infection, urethritis, exists at least in men. Epidemiological treatment has been criticised by many over the years, but has become accepted practice in certain situations. Despite epidemiological treatment, the knowledge of whether a patient is chlamydia positive or negative may be useful, particularly when there is a risk to other contacts. If epidemiological treatment is to be practised, however, it is difficult to justify attempting chlamydial diagnosis in every patient so managed. Similarly, although it may be useful to know whether NGU in men is chlamydial or non-chlamydial in some situations, a blanket use of a CDS is difficult to justify when treatment and contact tracing are initiated by a diagnosis of NGU.

On the other hand, it is difficult to see how some patients can be managed without a CDS. The fact that only one fifth of respondents thought that patients with gonorrhoea should be given antichlamydial treatment and less than half thought that a chlamydial diagnostic service was essential for the management of women with gonorrhoea makes it quite clear that many women with mixed gonococcal and chlamydial infection remain undiagnosed and untreated. Furthermore, in some situations, the medicolegal consequences of failure to diagnose a sexually transmitted disease are serious, and recourse to a CDS may be essential, even when the likelihood of infection is low.

This survey did not address the need for a CDS outside genitourinary medicine clinics. Undoubtedly some patients at risk will find their way directly or by referral from general practitioners and other hospital specialists, but there is a need for facilities to screen women before vaginal termination of pregnancy[5] and perhaps any procedure involving instrumentation of the uterus in a young sexually active woman.[6] In addition, a CDS would be helpful in managing women with PID presenting to gynaecology or accident and emergency departments,[1] for men with epididymo-orchitis presenting to urologists,[7] and in assessing adult and neonatal conjunctivitis.[8] Furthermore, two recent studies have shown that chlamydial infection is common in symptomatic women attending inner city general practices.[9 10]

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