Management of *Chlamydia trachomatis* in a women’s hospital: A review of current practice

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### Abstract

Objective. To establish a measure of testing for *Chlamydia trachomatis* within the Liverpool Women’s Hospital with a view to optimising both testing and management of infection.

Design. Prospective observational study to review the outcome of Chlamydia testing and subsequent management of patients between September 1997 – September 1998.

Results. It was observed that opportunities for detecting infection were missed and testing was undertaken predominantly for diagnostic purposes.

Recommendation. Consideration be given to a centralised system for overview of positive results linking with audit/education to reduce sequelae of *Chlamydia* within gynaecology.

### Background

Delay in diagnosis/treatment of genital tract *Chlamydia trachomatis* may result in unnecessary, costly and potentially litigious complications. Costs of infection in the UK are estimated at over £200 million per annum. All health professionals have a duty to consider their role in this aspect of health care. Gynaecologists may be more familiar with the consequences of pelvic infection than with its prevention. Infection with *Chlamydia trachomatis* may not be managed optimally in the gynaecological setting.

Women are referred to gynaecologists with complications and symptoms of current infection. Cervicitis and endometritis cause post-coital and inter-menstrual bleeding and menorrhagia. Pelvic inflammatory disease (PID) causes tubal factor infertility. Chronic pain and dyspareunia account for large numbers of outpatient attendances and an eight-fold increase in hysterectomy rate. Fertility is six times more likely to be impaired in women who have had chlamydial PID than those with non-STI associated PID. Following one or more episodes of PID there is a tenfold increase in the likelihood of ectopic pregnancy. Ectopic pregnancy accounted for 8.0% (22 of 261) deaths resulting from complications of pregnancy, puerperium and childbirth 1992-1997.

Observational studies indicate a large reservoir of undiagnosed infection within the general population. Women attend an obstetrics and gynaecological unit for reasons apparently unconnected with chlamydia. These consultations could be viewed as missed opportunities for finding chlamydia and preventing its sequelae.

It is reasonable to suggest that example and lead in the diagnosis and treatment of women with chlamydia could come from gynaecologists. This positive involvement would seem a preferable approach to one led by fear of litigation.

During 10-year’s testing in community family planning clinics and termination of pregnancy services we found it difficult to ensure consistent management of women testing positive. A centralised system and liaison with a designated health advisor improved matters.

### Methods

The study was conducted in Liverpool Women’s Hospital from September 1997-September 1998. In-hospital research funding supported a clinical assistant and research nurse session per week for six of the 12 months.

Chlamydia testing was performed at Liverpool Public Health Laboratory Service (PHLS) by ELISA (Microtrak, Dade Behring). Reactive results were confirmed by fluorescence (Microtrak, Dade Behring) or PCR (Roche, Cobas).

A modified request form was designed by the researchers to enhance uniform data collection. Alongside demographic and departmental details, we recorded the reason for testing, symptoms, clinical signs and contraception.

Chlamydia swab results were copied to the research nurse and test initiator. Case notes were located for each woman with a positive result and it was established whether results were filed/signed, whether there was documentation of notification to patient or general practitioner (GP) about positive results, of treatment and mention of partners. Notes were examined 5 days, 1 week and 2 weeks after the result was issued. If no treatment had been initiated then the notes were brought to the attention of the test initiator.

### Results

Table 1 shows the number of attendances and tests from September 1997 – September 1998 in each department, together with positivity rates in those under and over 26 years of age.

Three departments taking most tests in relation to new patient attendance are colposcopy 367/1441(25.5%), emergency room 471/8435 (5.6%), and gynaecology outpatient department 309/6428 (4.8%). Although the highest percentage positivity was in gynaecology wards, numerically only four cases were found of 47 tested, whereas the colposcopy unit and the emergency room found larger numbers (13 and 18, respectively).

In the abortion unit there was no policy in place for chlamydia testing and no funding identified.
Adequate documentation is important. We developed a checklist for management of chlamydia (Figure 1), which would lead to enhanced case note documentation useful for risk management. This checklist could be incorporated into the test result issued from the laboratory. If the results were then forwarded to the patient’s GP, this checklist could be used in primary care. A second improvement may be a centralised system for the overview of positive results, responsibility for follow-up and treatment, which is clearly defined and effective. This could incorporate a health adviser role within the gynaecological department.

**Discussion and suggestions**

It is apparent that within this women’s health care setting there is no overall policy relating to the taking of chlamydia tests and no protocol for management of those who test positive. It is undoubtedly the responsibility of the person initiating the test (or delegated colleague) to ensure that correct management is implemented if it is positive. This view demonstrated the inherent difficulties, which must be shared with similar services with diverse subspecialties.

There are two ways to help improve matters:

- Adequate documentation is important. We developed a checklist (Figure 1), which would lead to enhanced case note documentation useful for risk management. This checklist could be incorporated into the test result issued from the laboratory. If the results were then forwarded to the patient’s GP, this checklist could be used in primary care.
- A second improvement may be a centralised system for the overview of positive results, responsibility for follow-up and treatment, which is clearly defined and effective. This could incorporate a health adviser role within the gynaecological department.

### Table 1  Positivity rates within departments

<table>
<thead>
<tr>
<th>Department</th>
<th>New pts each dept 1997-1998</th>
<th>No of +ve Swabs. All Ages/No sent (%)</th>
<th>No of +ve Swabs. &lt; 26 Years/No sent (%)</th>
<th>No of +ve Swabs. ≥ 26 years/No sent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal clinic</td>
<td>5830</td>
<td>1/36 (2.8)</td>
<td>1/16 (6.2)</td>
<td>0/20 (0)</td>
</tr>
<tr>
<td>Day care abortion unit</td>
<td>3270</td>
<td>0/1 (0)</td>
<td>0/1 (0)</td>
<td>0/1 (0)</td>
</tr>
<tr>
<td>Colposcopy</td>
<td>1441</td>
<td>13/367 (3.5)</td>
<td>10/154 (6.5)</td>
<td>3/213 (1.4)</td>
</tr>
<tr>
<td>Gynaecology wards</td>
<td>7053</td>
<td>4/47 (8.5)</td>
<td>3/20 (15.0)</td>
<td>1/27 (3.7)</td>
</tr>
<tr>
<td>Emergency room</td>
<td>8435</td>
<td>18/471 (3.8)</td>
<td>14/220 (6.4)</td>
<td>4/251 (1.6)</td>
</tr>
<tr>
<td>Gynaecology out pt</td>
<td>6428</td>
<td>6/309 (1.9)</td>
<td>5/72 (6.3)</td>
<td>1/23 (4.3)</td>
</tr>
<tr>
<td>Delivery suite</td>
<td>6220</td>
<td>1/59 (1.7)</td>
<td>1/23 (4.3)</td>
<td>0/36 (0)</td>
</tr>
<tr>
<td>Maternity wards</td>
<td>7155</td>
<td>1/43 (2.3)</td>
<td>1/15 (6.7)</td>
<td>0/28 (0)</td>
</tr>
<tr>
<td>Reproductive medicine</td>
<td>630</td>
<td>0/12 (0)</td>
<td>0 (0)</td>
<td>0/12 (0)</td>
</tr>
<tr>
<td>Neonatal unit</td>
<td>601</td>
<td>0/8 (0)</td>
<td>N/A</td>
<td>0/8 (0)</td>
</tr>
<tr>
<td>Source not given</td>
<td></td>
<td>6/110 (5.4)</td>
<td>3/45 (6.7)</td>
<td>3/65 (4.6)</td>
</tr>
<tr>
<td>Total</td>
<td>33378</td>
<td>51/1464 (3.5)</td>
<td>38/566 (6.7)</td>
<td>13/898 (1.4)</td>
</tr>
</tbody>
</table>

**Conclusion**

In a diverse service it is difficult to manage women with positive chlamydia tests consistently, effectively and with adequate documentation. A checklist for management is one way to improve matters. A centralised system for overview of positive results combined with a health advisor role is one we would recommend for consideration.

As 70–80% of chlamydia is asymptomatic, gynaecology departments should consider their role in prevention of its sequelae.

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**References**

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