

ADOLESCENT SEXUAL HEALTH

News from the frontline: sexually transmitted infections in teenagers attending a genitourinary clinic in south east London

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Objectives: To define the incidence and characterise the clinical presentation of sexually transmitted infections (STI) in people aged ≤ 16 years old attending a genitourinary clinic in south east London.

Methods: Cross sectional analysis of clients aged ≤ 16 years attending one genitourinary clinic. A subgroup was identified for priority treatment. Data collected included age, reason for presentation, diagnosis, contraceptive use, and adherence to therapy. Diagnoses were compared to the KC60 codes for female attendances of all ages.

Results: 144 females and 18 males with a mean age of 15.4 years attended, of whom 49% were symptomatic. Compared to other attenders, clients aged ≤ 16 years were significantly more likely to have an STI (64% versus 22%, $p < 0.0000001$); 27 were pregnant (of whom 96% requested a termination of pregnancy); 47% did not return for follow up; and 12% did not adhere to treatment plan. Those diagnosed with an STI were significantly less likely to reattend ($p < 0.001$).

Conclusions: There is a high rate of STIs in 16 year olds compared to national figures and to general clinic attenders. Poor contraception is often overlooked within the genitourinary medicine clinic. Young attenders frequently fail to reattend for follow up. Priority treatment did not affect outcome. Further strategies are needed to identify ways to improve young people's access to genitourinary medicine clinics.

Rates of infection with *Chlamydia trachomatis* and *Neisseria gonorrhoeae* peak among women aged 16–19 years¹ and teenagers with sexually transmitted infections (STI) are more likely than older groups to be reinfected after initial presentation.² Twenty eight per cent of 16 year olds use no contraception,³ resulting in the United Kingdom having the highest teenage pregnancy rate in western Europe.⁴ These issues are prioritised in the national strategy for sexual health and HIV.⁵

South east London has the highest abortion rate in England⁶ and treats 14% of the nation's gonorrhoea.⁷ The present study is a cross sectional analysis of clients aged ≤ 16 years attending a genitourinary medicine clinic in south east London which offers treatment for all sexually transmitted infections (STIs), contraception, and forensic screening.

The aims of the study were to define the incidence of STI in clients aged ≤ 16 years in south east London, characterise behavioural variables (for example, reason for accessing the clinic, contraceptive use, and adherence to treatment), and observe treatment received in the clinic.

METHODS

This is a cross sectional survey of all clients aged ≤ 16 years attending the genitourinary medicine clinic at King's College

Hospital in March and October 1998. Two separate months were chosen to minimise effects of individual staff members on client treatment. Clients attending repeatedly in this time period were counted once. Cases were identified retrospectively from the clinic database. Data were abstracted from the medical records using a standardised proforma by one investigator. Variables collected included age, sex, reason for presentation, obstetric history, contraceptive practice, diagnosis, follow up, and adherence to treatment. Adherence was defined as completing 90% of medications, refraining from unprotected sexual intercourse and undertaking appropriate partner notification. Of note, in April 1998 clinic policy was changed so that all clients aged < 16 received priority treatment. In summary, a health adviser saw clients within 10 (range 1–21) minutes to assess Gillick competency, discuss the clinic procedure and explain the importance of treatment, and afterwards ensured that they were seen immediately in the conventional clinic setting. At this time, medical staff were primed as to the importance of prioritising these clients and of ensuring adequate treatment, including contraception.

Diagnoses and adherence to therapy were compared to case and sex matched controls chosen at random from clients age > 20 years attending the clinic in the same 2 months. These controls faced a median waiting time of 47 minutes and spent an average of 4.5 hours in clinic.

Data were compared using χ^2 analysis with Yates's correction.

RESULTS

The database identified 172 clients; 10 of whom left before being seen. The remainder included 144 females and 18 males aged ≤ 16 years. The small number of males precludes their detailed analysis. Of the females, median age was 15.4 (range 12–15.9) years and median parity was 0.85 (range 0–10).

Reasons for attendance

Forty nine per cent of ≤ 16 year olds attended with symptoms suggestive of an STI; 43% of 12–16 year olds and 18% of controls attended for a routine check up ($\chi^2 = 21.2$; $p < 0.001$). Cases were significantly less likely than controls to attend as contacts (8% versus 40%, $\chi^2 = 42.1$; $p < 0.00000001$).

Contraception

Twenty seven of 144 (19%) were pregnant, of whom 26 requested a termination of pregnancy. Among the remaining 117 females, 89 (76%) were not using contraception at the time of consultation and 47 (53%) left the clinic without documentation of contraceptive advice.

Diagnosis

Diagnoses were similar in both months of the study. Table 1 shows the diagnoses of ≤ 16 year olds compared to all females

Table 1 Diagnoses in teenagers and all women attending clinic

Diagnosis*	≤16 year olds	All women	χ ²	p Value†
	No (%)	No (%)		
Chlamydia	34 (23)	86 (6)	15.8	<0.0001
Gonorrhoea	13 (9)	29 (3)	4.2	<0.05
PID	15 (10)	87 (8)	0	0.29
Other STI‡	32 (22)	100 (9)	8.5	<0.005
Any STI	94 (64)	302 (28)	36.2	<0.000001
Non-STI§	52 (36)	772 (72)	53.3	<0.01

*Total number of diagnoses is >144 as some clients had >1 diagnosis; †χ² analysis with Yates's correction; ‡eg, genital warts, trichomonas vaginalis, herpes simplex and pediculosis pubis; §eg, candidiasis, bacterial vaginosis, urinary tract infection, family planning, and conditions not requiring treatment.

attending the clinic in the same months. Of the ≤16 year olds, 64% had an STI, compared to 22% of all females (χ² =47.6; p<0.0000001).

Follow up

Sixty seven of 144 (47%) young women failed to attend after the first visit, compared to 29% of case matched controls (χ² = 10.3; p<0.001). Of those clients who returned to clinic, 17/77 (22%) of 16 year olds had failed to adhere fully to treatment regimens. Females with any STI were less likely to return for follow up than those without (p<0.001). The presence of symptoms did not improve follow up. Prioritisation did not affect likelihood of return to clinic or adherence. Eight of 41 (20%) clients who received priority treatment left before seeing a medical practitioner, compared to two of 103 of those who had been seen routinely. Of clients receiving priority treatment 26/41 (63%) received appropriate contraceptive advice, compared to 71/103 (69%) of all other 16 year olds.

DISCUSSION

This is the first UK study looking at clients <16 years old in an area of high sexual morbidity. The main findings were that almost two thirds of 16 year olds seen in the genitourinary medicine clinic had an STI. Teenagers were 2.5 times more likely to have any STI than other attenders at the clinic, but 50% less likely to attend for follow up than case matched controls. One in five requested a termination of pregnancy and more than two thirds admitted to inadequate contraception. Despite this, nearly half left the clinic without receiving documented contraceptive advice. Prioritisation within the clinic did not affect contraceptive discussion, return for follow up, or adherence.

Teenagers had a more than threefold increase in incidence of gonorrhoea and chlamydia compared to the already high incidence of these diseases in the general clinic attenders. This accords with data from urban genitourinary medicine clinics in the United States,⁸ but contrasts with data from the United Kingdom.⁹ The UK study reported a similar number of infections over a 2 year period as were seen in the 2 months of our study. Attenders at a genitourinary medicine clinic are not representative of all teenagers and it would be interesting to ascertain the incidence of these infections in the community. The fact that 43% of teenagers were attending for a routine check up, compared to 18% of controls, implies that teenagers may be more aware of the need for routine sexual health checks than older counterparts.

The poorly documented contraceptive advice offered within the genitourinary medicine clinic is of concern. The majority of 12–16 year olds had been pregnant at least once and one had been pregnant 10 times. A one stop sexual health clinic

Key points

- Two thirds of clients aged ≤16 years had an STI
- Females aged ≤16 years were three times more likely to have an STI than other females attending the clinic
- Almost half of females aged ≤16 years failed to attend for follow up
- Contraceptive needs were inadequately served by the clinic

offering contraception, STI screens and behavioural advice may be especially useful in areas seeing a high number of teenagers.¹⁰

The low rate of follow up contrasts with a study, performed in a family planning clinic in the United States with a low incidence of STI.¹¹ Their findings may represent the characteristics of the general population, rather than that of teenagers in particular. Prioritisation did not reduce the number of clients leaving the clinic before being seen, nor did it improve the clinical care received within the clinic. This may be explained by the increasing workload of the clinic; there was a 70% increase in the number of ≤16 year olds seen in October compared to March. Although the time to initial assessment by a health adviser improved, this did not necessarily reduce total time spent in the clinic. Alternatively, the results may indicate that the initial interview with a health adviser failed to improve client education or treatment by other health professionals.

Very few young men were seen. This cannot be explained entirely by a later coitarche in men compared to women and implies that young men fail to access genitourinary medicine clinics. Ways of targeting this high risk group need to be explored.

The success of young people's sexual health clinics in improving adherence to therapy has been demonstrated.¹⁰ However, total numbers of patients seen were lower in these studies than in our population. Although the benefits of outreach studies and peer education are recognised,¹² these are costly alternatives. In combating STI and unwanted pregnancy, it is imperative to target those at highest risk—namely, teenagers in south east London.

CONTRIBUTORS

SC performed the data collection, statistical analysis and with RFM wrote the first and final drafts of the manuscript; SE contributed to study design and with JW critically reviewed drafts of the manuscript.

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