

Logistic regression analysis of variables related to reattendance with gonorrhoea or chlamydia/NSU

Variable		Reattendance with gonorrhoea	p value	Reattendance with chlamydia/NSU	p value	Total
Negative HIV Test in 1987	Yes	15 (3.3%)	0.57	50 (11%)	0.6	452
	Not tested	23 (1.3%)		314 (17%)		1810
Age group	under 16	0	0.26	0	< 0.01	1
	16-20	0		13 (28%)		46
	21-25	17 (2.8%)		112 (18%)		603
	26-30	12 (1.7%)		103 (15%)		687
	31-35	7 (1.6%)		80 (18%)		434
	36-40	0		32 (15%)		217
Social class	over 40	2 (0.7%)	0.02	24 (8.8%)	0.78	274
	1	0		5 (15%)		32
	2	2 (0.8%)		32 (12%)		264
	3	19 (1.7%)		190 (17%)		1104
	4	4 (3.1%)		23 (17%)		131
	5	3 (9.1%)		10 (30%)		33
Location acquired	unknown	10 (1.4%)	0.08	104 (15%)	0.003	698
	Lothian	21 (1.5%)		242 (17%)		1397
	Scotland	5 (6.2%)		24 (30%)		81
	Other	5 (4.9%)		32 (31%)		102
Sex	Unknown	7 (1%)	0.71	66 (9.7%)	< 0.01	682
	Male	34 (2.1%)		338 (21%)		1630
Sexual orientation	Female	4 (0.6%)	< 0.01	26 (4%)	< 0.01	632
	Heterosexual	15 (0.8%)		337 (18%)		1845
	Homosexual	22 (5.5%)		27 (6.7%)		403
	Bisexual	1 (7%)		0		14

associated with a younger age group, acquisition of infection outside Lothian, being male and heterosexual orientation.

Many patients who attend GU clinics receive some form of health education or promotion yet despite this many return with STDs which would indicate that they have not followed the advice given. HIV testing was always accompanied by counselling before and after testing, encouraging safer sexual behaviour, yet there was no significant difference in the rates of gonorrhoea or chlamydia in those who had been HIV tested and those who had not. Although this may reflect initial differences in behaviour in the "tested" and "not tested" groups it implies that HIV testing per se does not produce a low risk population for the subsequent acquisition of STDs. Others have also found a high rate of STDs in those who reattend after HIV testing.² Since health education often requires repetition to induce change³ the one or two

counselling sessions associated with an HIV test may not be effective.

Genitourinary clinics have a high rate of patient reattendance with STDs despite the promotion of low risk sexual behaviour. Certain subgroups of patients can be identified and may benefit from targeted health promotion.

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Trichomonas vaginalis transmission in a family

Vaginal trichomoniasis is one of the common female sexually transmitted diseases. Non sexual transmission in adults has been reported.¹ The organism can survive on fomites for periods up to 24 hours.² Perinatal transmission has been reported by Bramley.³ A case of *T. vaginalis* transmission from a mother to two siblings and possibly a third is reported.

A 35 year old woman noticed a yellowish vaginal discharge from two of her children, A and B (aged 3 and 4½ years respectively). Her eldest daughter C (7 years) had complained of a vaginal discharge with itching the previous day. The mother had received treatment for a vaginal discharge (which still persisted) at the local Health Post 2 weeks previously. She supervised the children personally at home and denied the possibility of sexual abuse on

the children. B and C who could communicate verbally also denied sexual abuse at separate interviews. The family including the husband, used the same bathing towel and sponge. All the children had an intact hymen on vaginal examination. Yellowish discharges could be seen in their vaginal vestibules.

Wet film microscopy of discharges from the mother (taken from the posterior fornix) and the vaginal vestibules of two daughters (A and C) showed active *trichomonas vaginalis*. This was negative for B on three repeated examinations done a week apart. Culture for *T. vaginalis* was not done. Smears and cultures for gonorrhoea, and candida was also negative. Chlamydia ELISA was negative. A diagnosis of trichomonas vaginitis was made for the mother, A and C. Two sets of tests of cure taken a week and 4 weeks after treatment were negative for all STDs. The only sexual partner of the woman (her husband) was

asymptomatic and microscopy of an early morning urine specimen from him was negative for *T. vaginalis*.

When *T. vaginalis* has been isolated in children, the mode of transmission usually thought of has been sexual abuse. Charles (1991)⁴ showed the presence of *T. vaginalis* in 33 children below the age of 12 years among 115 juvenile and adolescent patients with leucorrhoea. He concluded that there was the possibility of transmission of this infestation through the communal use of water tanks, ponds, and rivers. Burch *et al*⁵ concluded that *T. vaginalis* can be transmitted by fomites, among individuals with a poor concept of hygiene and sanitation after isolating *T. vaginalis* from wet wash cloths of infected women. It is commonplace to have whole families in developing countries use the same bathing apparel. It is not unlikely that *T. vaginalis* can be transmitted within the family this way.

In the case report above, it is believed the three children contracted *T. vaginalis* from their mother, even though the protozoan could not be identified by microscopy in one of them, the vehicle of transmission being either the bathing sponge or towel shared by the family. While it can be presumed that the wife was infected through sexual intercourse by the husband or vice versa, it was impossible to prove that there had been any genital contact between the man and his daughters. Nevertheless, there was absolutely no evidence of sexual abuse and transmission through shared bathing equipment seems the most likely explanation.

Since the presence of a STD in a child has medico-legal implications, when *T. vaginalis* or any other pathogen known to be transmitted sexually is isolated from the vagina of children, the possibility of non sexual transmission through communal use of fomites as above, should be considered.

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Asthma in an AIDS patient with Norwegian scabies induced by bathing

Scabies is common among the HIV infected population.¹ Patients with advanced HIV disease are at risk of developing the atypical crusted, or Norwegian form of scabies in which the mite burden is extremely high.¹

Successful treatment of such patients involves bathing to remove crusted areas in addition to repeated applications of topical scabicides.²

We recently treated a patient with widespread Norwegian scabies and HIV encephalopathy who developed an anaphylactoid reaction to getting into a hot bath on two successive occasions. During the second episode, he became distressed, tachypnoeic and developed expiratory wheezing. He had an oxygen saturation of 79% on air. His systolic blood pressure fell from 110 mm Hg to 70 mm Hg with a heart rate of 140/min. All of the abnormal findings resolved within 30 minutes of his being removed from the bath and being given a salbutamol nebuliser. From then on he was bathed in tepid water until his skin had recovered. He required no further asthma treatment, and was not given corticosteroids at any time. He was not able to use a peak flow meter. There was no personal or family history of previous asthma or atopy.

During the period of his infestation, our patient had a marked eosinophilia, peaking at 6.1×10^9 ml. His total IgE was markedly raised. Two weeks after successful scabies treatment his eosinophil count had fallen to 0.4×10^9 ml⁻¹, and he was able to tolerate hot baths without wheezing or hypotension.

Typical scabies infestation in immunocompetent individuals frequently provokes a TH2 type immune response, with production of IgE and an eosinophilia³; such responses are reported to be relatively well preserved, or exaggerated, in HIV infected individuals.⁴ IgE directed against scabies mite antigens cross reacts with house dust mite antigens.³ Asthma resulting from parasitic infections is well described,⁵ but has not previously been associated with scabies. Increased antigen absorption following cutaneous vasodilation in response to immersion in hot water may have precipitated our patient's asthmatic attacks. Scabies infestation may be a predisposing factor for the development of IgE mediated hypersensitivity reactions in patients with AIDS.

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Diagnosis of gonorrhoea by microscopy

Microscopy of Gram stained specimens remains the initial screening test for gonorrhoea, and facilitates early treatment. A recent audit of microscopy has suggested that the sensitivity of this technique is falling,