LETTERS TO THE EDITOR

A study on the possible association of dysfunctional uterine bleeding with bacterial vaginosis, mycoplasma, ureaplasma, and *Gardnerella vaginalis*

EDITOR,—A number of studies in the recent years have shown that bacterial vaginosis or its associated micro-organisms mycoplasma/ureaplasma may be associated with various obstetric and gynaecological complications such as pelvic inflammatory disease and infertility,[1] premature rupture of membranes and preterm labour,[2] plasma cell endometritis,[3] non-specific urethritis in male partners,[4] and in our previous study[5] we showed colonisation of the endometrium by mycoplasma and ureaplasma in patients with bacterial vaginosis

The purpose of this study was to see if there is any association between dysfunctional uterine bleeding (DUB) and mycoplasma, ureaplasma, and/or bacterial vaginosis.

Ten patients, all with dysfunctional uterine bleeding admitted for abdominal hysterectomy, were recruited for the study. Patients were between 38 and 48 years (mean age 44) and all except one were parous. Appropriate ethics committee approval and informed consents were taken.

A detailed history was taken, particularly obstetrics and gynaecological, and any history of bacterial vaginosis or troublesome vaginal discharge. A preoperative high vaginal swab for microscopic diagnosis of bacterial vaginosis was taken. At operation, the endometrial cavity was opened by splitting the anterior wall of the uterus and an endometrial swab and biopsy were taken for microbial culture and scanning electron microscopy for mycoplasma, ureaplasma, and *Gardnerella vaginalis.*

None of the patient had any history of bacterial vaginosis, troublesome vaginal discharge, or any obstetric or gynaecological complications. Microscopic examination of the high vaginal swabs were all normal except one with possible bacterial vaginosis. Microbial culture and scanning electron microscopy showed no mycoplasma, ureaplasma, or *Gardnerella vaginalis.*

Although there is definite association of colonisation of the endometrium by mycoplasma and ureaplasma in patients with bacterial vaginosis, as we showed in our previous study, this study did not show any association of DUB with bacterial vaginosis, *Gardnerella vaginalis*, mycoplasma, or ureaplasma. Any significant association of DUB and bacterial vaginosis appears unlikely, as the age group of the majority of patients with DUB, as in this study, is also different from the age group for bacterial vaginosis.

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Ethnicity and country of acquisition of HIV in the current Leicester genitourinary medicine clinic cohort

EDITOR,—We have surveyed the regular HIV infected attenders in the Leicester genitourinary medicine (GUM) HIV cohort; there are currently 60 men and 16 women. Twenty five per cent are black African and 13% are of Indian/Pakistani/Bangladeshi stock, while 62% are white. This amounts to 19 of 8258 black Africans in the Leicestershire total county population (which includes Leicester central district) being HIV positive. Forty seven of 771 181 white people and 10 of 77 537 Asians in the Leicestershire total county population were also HIV positive (Leicester City Council, from 1991 census figures, 2000, personal communication).

For acquisition of HIV related to ethnicity, the results are as displayed in table 1.

In 1997, of those with heterosexually transmitted HIV[1] in the United Kingdom, 3.3% were black Caribbeans, 49% were black African, with 33% being white, and 2.3% were Asian.

In 1999, the Communicable Disease Report[2] stated that, of female HIV infected people in England and Wales, 32% were white people and 49.5% were black Africans, and 2.7% were black Caribbeans, and 1.3% were south Asians.

Compared with the latter England and Wales figures, Leicester appears to have a moderate underrepresentation of black Africans with HIV, and a moderate overrepresentation of Asians in its cohort. This latter figure is to be expected because Leicester's Asian population is 23.7% of the total population of the city (Leicester City Council, 1991 census figures, 2000, personal communication). However, the Asian figure is not that high pro rata, possibly because cultural factors prohibit sex outside marriage.

Quinn *et al*[3] have shown recently that viral load is the chief predictor of the risk of heterosexual transmission of HIV-1, and that transmission is rare among people with levels of less than 1500 copies of HIV-1 RNA per ml.

It may be that HAART (highly active antiretroviral therapy) for HIV infected people has caused transmission to be low in the United Kingdom but, as Cohen says, such a theory has not been proved.[4]

The viral subtype dominant in parts of Africa (clade C), has unique properties that favour sexual transmission.[5] Other factors that make Africans more susceptible to HIV than those who live in more developed countries include lack of host factors that reduce infection risk; the plasma HIV-1 RNA level in seropositive people being higher in sub-Saharan Africans; the lack of mutations in the gene for chemokine receptor 5; circumcision status, with most men in Africa being uncircumcised; and the high prevalence of ulcerative sexually transmitted diseases.[4] Some of these factors will operate for Asian patients born in Africa.

Thus, ethnicity and country of acquisition of HIV in Leicester as elsewhere, is a reflection of interwoven, genetic, environmental and behavioural, political, and geographical factors.[4] Therefore, we cannot just examine nationality in isolation when considering HIV epidemiology. Travellers from Britain to Thailand, the Philippines, India, and Africa especially should be forewarned of the risks of sex and healthcare needle exposure and/or blood transfusions in all travel medicine consultations.

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Table 1 Table of ethnicity in relation to country of acquisition of HIV, as found in the Leicester genitourinary medicine clinic HIV cohort, and assessed in April 2000

	Ethnicity			
Country of acquisition	*Asian*	*African*	*White*	*Total (%)*
Asia	2 (3%)	2 (3%)	2 (3%)*	9%
Africa	2 (3%)	15 (25%)	2 (3%)	31%
UK	2 (3%)	2 (3%)	43 (54%)	60%
Total	9%	31%	60%	100%

*Thailand.

Detection of 14-3-3 brain protein in cerebrospinal fluid of HIV infected patients

EDITOR,—The 14-3-3 proteins are a group of highly conserved proteins involved in intracellular signalling. Detection of 14-3-3 brain protein has been described in cerebrospinal fluid (CSF) of patients with transmissible spongiform encephalopathies including both sporadic and variant Creutzfeldt–Jakob disease.[1 2] False positive results have been reported in conditions producing (sub)acute neuronal destruction, including herpes simplex encephalitis, ischaemic stroke, multi-infarct dementia, and paraneoplastic syndromes.[1–3] We postulated that 14-3-3 brain protein may be detected in CSF from patients with HIV associated dementia complex (HADC) as this condition is characterised neuropathologically by a giant cell encephalitis, leucoencephalopathy, astrogliosis and neuronal loss.

We prospectively studied 17 HIV antibody positive patients (14 men) aged 27–60 (median 37) years, with CD4 counts of 0–220 (median 20) cells $\times 10^6$/l, who underwent lumbar puncture for investigation of HADC (six patients), staging of lymphoma (five patients), or investigation of other conditions (six patients): epilepsy (two), cervical radiculopathy (one), chronic demyelinating polyradiculopathy (one), CMV encephalitis (one), self limiting headache (one). Of those with HADC, the severity of dementia assessed using Memorial Sloan-Kettering criteria,[4] was mild in two and moderate in four. The degree of atrophy on cranial magnetic resonance imaging, used as a marker of neuronal loss[5] was mild in four and moderate in two. Clinical details of those with lymphoma are given in table 1. At each lumbar puncture an aliquot of CSF (250 µl) was frozen immediately at −20°C and stored for subsequent 14-3-3 protein analysis.

CSF was routinely processed as described previously.[6] Detection of 14-3-3 protein was done without knowledge of the patient's diagnosis, using a technique described by Hsich *et al*,[1] modified to use anti-14-3-3 γ polyclonal rabbit antibody.

In 14 of 17 patients CSF was negative for 14-3-3 protein. Of the three with detectable 14-3-3 protein in CSF, all had lymphoma but only one had CNS disease, the other two had only extraneural disease (table 1). These data, although from a small study population, suggest that detection of 14-3-3 protein in CSF is not useful for diagnosis of HADC. Detectable 14-3-3 protein has previously been reported in a non-HIV infected patient with CNS lymphoma,[3] so this observation in our patient is not unique, although brain necrosis from coexisting cerebral toxoplasmosis provides an alternative explanation. Of the two patients with extraneural lymphoma and detectable 14-3-3 protein in CSF, one had EBV DNA in CSF and so was at high risk of developing cerebral lymphoma. This possibility could not be confirmed as necropsy was not performed. In neither of the latter two patients was there a CSF pleocytosis, so contamination by 14-3-3 protein derived from peripheral blood leucocytes is unlikely. In the final case the absence of limbic encephalitis or cerebellar degeneration[3] makes it difficult to ascribe the finding to a paraneoplastic process.

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Hepatitis B vaccination in a high risk MSM population: the need for vaccine education

EDITOR,—Estimates of the prevalence of hepatitis B virus (HBV) markers among men who have sex with men (MSM) range from 5% to 81%, and the prevalence of HBV surface antigen varies from 1% to 11%.[1 2] Despite a safe and effective vaccine against HBV, sexually active MSM are not vaccinated adequately.[2–5] Few empirical data describe the factors associated with HBV vaccination among MSM. We conducted a study to identify correlates of HBV vaccination among MSM that could inform future interventions designed to enhance HBV vaccination.

Data were collected at two male "gay" bars in Birmingham, Alabama, USA, using a brief, self administered questionnaire. Of 130 bar patrons, our sample consisted of 111 respondents who identified themselves as MSM and knew their vaccination status. Their average age was 31 years with a range of 18–48 years. The sample was disproportionately white (91.9%); 42% reported being vaccinated for HBV.

Based on bivariate associations nine characteristics were significantly associated with HBV vaccination—age; condom use; factual knowledge of hepatitis; HBV knowledge; HCV knowledge; HBV vaccination knowledge; number of sources for information about hepatitis; information from a physician; and information from professional training. Two factors retained significance when adjusting for all other factors in a multivariate logistic regression model: respondents' HBV vaccination knowledge (OR=10.18; 90% CI = 4.0–25.37, p = 0.0001) and their frequency of condom use (OR=6.1; 90% CI = 2.54–14.67, p = 0.0007). The predictive power of the model ($\chi^2 = 42.33$; p = 0.0001) was high, correctly classifying 76.4% of the respondents into their actual vaccination status categories (p = 0.0001). These findings suggest that respondents with high HBV vaccination knowledge and condom use are significantly more likely to have been vaccinated against HBV.

There is need to enhance awareness and facilitate vaccination among this high risk population for HBV infection; 32% reported having no information about hepatitis. Many respondents reported engaging in behaviours that put them and their sexual partners at risk for HBV infection; 95.5% and 30.6% reported using a condom less than 50% of the

Table 1 Clinical features, results of CSF brain protein detection, and outcome in patients with lymphoma

			CSF		
Patient	*Type of lymphoma*	*No of lumbar puncture*	*Interval between lumbar puncture (weeks)*	*14-3-3 detection*	*Outcome*
1	Primary CNS	1		No	Died 2 weeks after second lumbar puncture
			11		Necropsy showed also cerebral toxoplasmosis
		2		Yes	
2	Primary CNS	1		No	Died 2 weeks after second lumbar puncture
			3		Necropsy confirmed diagnosis
		2		No	
3	Primary CNS	1	NA	No	Died 3 weeks later. No necropsy
4	Systemic, disseminated extraneural	1	NA	Yes	Died 6 weeks later. Cranial MR scan normal but EBV DNA detected in cell free CSF No necropsy
5	Systemic, extra neural	1	NA	Yes	Alive. Cranial MR scan normal. Treated with local RT and HAART. No lymphoma recurrence after 39 months follow up

CNS = central nervous system. NA = not applicable. EBV = Epstein–Barr virus. CSF = cerebrospinal fluid. MR = magnetic resonance. RT = radiotherapy. HAART = highly active antiretroviral therapy.

time during oral and anal intercourse, respectively. Given that HBV transmission usually results from mucous membrane exposure to infectious body fluids, including semen,[6] the failure to vaccinate this high risk population is a missed opportunity to prevent disease.

Our findings suggest that MSM lack information about HBV risk and vaccination, and are engaging in behaviours that put them at risk for HBV infection. It is critical to develop innovative interventions that encourage condom use and increase knowledge of HBV vaccination among MSM.

This study was supported financially by the researchers themselves. We wish to thank the participants, the bar owners, managers, and staff.

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NOTICES

International Herpes Alliance and International Herpes Management Forum
The International Herpes Alliance has introduced a website (www.herpesalliance.org) from which can be downloaded patient information leaflets. Its sister organisation the International Herpes Management Forum (website: www.IHMF.org) has launched new guidelines on the management of herpesvirus infections in pregnancy at the 9th International Congress on Infectious Disease (ICID) in Buenos Aires.

Pan-American Health Organization, regional office of the World Health Organization
A catalogue of publications is available online (www.paho.org). The monthly journal of PAHO, the Pan American Journal of Public Health, is also available (subscriptions: pubsvc@tsp.sheridan.com).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics and Gynaecology, symposium on Maternal Mental Health and the Child, 12 October 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG, UK (tel: +44 (0) 20 8383 3904; fax: +44 (0) 20 8383 8555; email: sympreg@ic.acx.uk).

11th Regional Meeting of International Union against Sexually Transmitted Infections, South East Asian and Western Pacific Branch and 24th National Conference of Indian Association for the Study of Sexually Transmitted Diseases and AIDS, 13–15 October 2000, Chandigarh, India
Further details: Dr Bhushan Kumar, Organising Secretary, 11th Regional Meeting of IUSTI–Asia Pacific (SE Asia and W Pacific Branch), Department of Dermatology, Venereology and Leprosy, PGIMER, Chandigarh - 160 012, India (tel: +91 (0172) 745330; fax: +91 (0172) 744401/745078; email: kumarbhushan@hotmail.com).

New Zealand Venereological Society Conference, Centennial Convention Centre, Palmerston North, New Zealand, 18–20 October 2000
Ka Hikoitia Ka Korerotia Mo Te Tau Rua Mano (Maori) "Walk the Talk 2000." Further details: Sue Peck, Conference Organiser, SP Conference Management, PO Box 4400, Palmerston North, New Zealand (tel: 64 6 357 1466; fax 64 6 357 1426; email suepeck@xtra.co.nz).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics and Gynaecology, symposium on Women and Children with HIV and AIDS, 20 October 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG, UK (tel: +44 (0) 20 8383 3904; fax: +44 (0) 20 8383 8555; email: sympreg@ic.acx.uk).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics and Gynaecology, symposium on key issues in the Care of Women and Gynaecological Gancers (for nurses), 30 October 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG, UK (tel: +44 (0) 20 8383 3904; fax: +44 (0) 20 8383 8555; email: sympreg@ic.acx.uk).

Consortium of Thai Training Institutes for STDs and AIDS—10th STDs/AIDS diploma course, Bangkok Hospital, Bangkok (30 Oct–12 Nov) and Prince of Songkla University, Hat Yai, Thailand (13–23 Nov) 30 October–23 November 2000
Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th *or* Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

Imperial College School of Medicine, Division of Paediatrics, Obstetrics and Gynaecology, revision course for DCH (at Wolfson Conference Centre), 13–17 November 2000
Further details: Symposium Office, Imperial College School of Medicine, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0XG, UK (tel: +44 (0) 20 8383 3904; fax: +44 (0) 20 8383 8555; email: sympreg@ic.acx.uk).

Consortium of Thai Training Institutes for STDs and AIDS—International Reunion and Refresher Course on Sexual Health, Lee Garden Plaza Hotel, Hat Yai, Thailand 24–26 November 2000
Further details: Hat Yai Secretariat, Dr Verapol Chandeying, Dept of OB-GYN, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla 90110, Thailand (fax: (66-74) 446 361; email: cverapol@ratree.psu.ac.th *or* Bangkok Secretariat, Dr Thanit Palanuvej, Bangkok Hospital, 189 Sathorn Road, Bangkok 10120, Thailand (fax: (66-2) 286 3013; email: pthanit@email.ksc.net).

Royal Society of Medicine and National Institutes of Health International Conference, RSM London, 7–8 December 2000
The RSM in London, UK, and the NIH in Bethesda, Maryland, US, are organising an international conference to be held at the RSM on "New trends in HIV management and research." Further details: Victoria Boswell, Academic Conference Assistant, Royal Society of Medicine (tel: +44 (0)20 7290 2965; fax:+44 (0)20 7290 2977; email: victoria.boswell@roysocmed.ac.uk).

International Symposium on Disorders of the Prostate, 21–23 March 2001, Castres, France
Further details:Dr Mike Briley, Scientific Director, Pierre Fabre Medicament, Parc Industriel de la Chartreuse, F-81106 Castres Cedex, France (tel:+33 563 714 501; fax: +33 563 725; email: briley@pierre-fabre.imagenet.fr).

Call for papers—6th European Forum on Quality Improvement in Health Care, 29–31 March 2001, Bologna, Italy
Further details: BMA/BMJ Conference Unit, BMA House, Tavistock Square, London WC1H 9JP, UK (tel: +44 (0) 20 7383 6409; fax: +44 (0) 20 7383 6869; email: quality@bma.org.uk; website: www.quality.bmjpg.com).

6th European Conference on Experimental AIDS Research (ECEAR '2001), 23–26 June 2001, Heriott-Watt University, Edinburgh, UK
Further details: ECEAR '2001 Conference Secretary, Division of Retrovirology, NIBSC, Blanche Lane, South Mimms, Potters Bar, Herts, EN6 3QG, UK.

CORRECTION

The paper by Hughes *et al* "Comparison of risk factors for four sexually transmitted infections: results from a study of attenders at three genitourinary medicine clinics in England" published in the August issue of *STI* (2000;**76**:262–7) contained errors in tables 1 and 2. The correct versions of these tables are published here. The multivariable statistical analyses presented in tables 3 and 4, on which the paper focuses and on which the discussion and conclusions are based, are unaffected by the errors and remain unchanged.

Table 1 Characteristics of patients attending three GUM clinics in England, April 1994 to September 1997

	Royal Hallamshire, Sheffield[1] *(%)*	*St Thomas's, London*[2] *(%)*	*Mortimer Market Centre (MMC), London*[3] *(%)*
Total attenders	20 334	15 155	15 882
Sex:			
Males	9 992 (49)	7 969 (53)	8 143 (51)
Females	10 314 (51)	7 186 (47)	7 659 (48)
Not recorded	28 (<1)	–	80 (1)
Age group:			
13–15	189 (1)	64 (<1)	20 (<1)
16–19	2 319 (11)	977 (6)	671 (4)
20–24	5 672 (28)	3 199 (21)	3 390 (21)
25–34	7 809 (38)	7 425 (49)	7 658 (48)
35+	4 254 (21)	3 485 (23)	4 135 (26)
Not recorded	91 (<1)	5 (<1)	8 (<1)
Male sexual orientation:			
Heterosexual	9 181 (92)	6 744 (85)	2 176 (27)
Homo/bisexual	800 (8)	1 174 (15)	1 751 (22)
Not recorded	11 (<1)	51 (1)	4 216 (52)
Female sexual orientation:			
Heterosexual	10 145 (98)	7 057 (98)	4 001 (52)
Homo/bisexual	165 (2)	89 (1)	96 (1)
Not recorded	4 (<1)	40 (1)	3562 (47)
Ethnic group:			
White	18 014 (89)	8 383 (55)	8 629 (54)
Black Caribbean	1 038 (5)	4 308 (28)	433 (3)
Black African	140 (1)	1 611 (11)	435 (3)
Asian	483 (2)	496 (3)	506 (3)
Other/mixed[4]	297 (1)	357 (2)	498 (3)
Not recorded	362 (2)	–	5 381 (34)
Presenting diagnosis			
Genital warts[5]	1 976 (10)	963 (6)	619 (4)
Genital HSV[5]	548 (3)	433 (3)	265 (2)
Gonorrhoea[6]	389 (2)	559 (4)	285 (2)
Chlamydia[6]	2 175 (11)	752 (5)	633 (4)
Number of partners[7] (heterosexuals):			
0–1	10 353 (53)	7 299 (53)	2 897 (47)
2	5 027 (26)	3 541 (26)	1 611 (26)
3+	3 961 (20)	2 802 (20)	1 669 (27)
Not recorded	13 (<1)	159 (1)	–
Previous STI:			
Yes	5 791 (28)	5 807 (38)	3 483 (22)
Not recorded	–	3 (<1)	7 533 (47)
Ever injected drugs			
Yes	361 (2)	228 (2)	145 (1)
Not recorded	–	2 (<1)	7 486 (47)
Commercial sex work (ever):			
Yes	543 (3)	–	181 (1)
Not recorded	–	15 155 (100)	7 641 (48)

1 Data for 1 April 1994 to 30 September 1997.
2 Data for 1 April 1994 to 31 December 1996.
3 Data for 1996 only.
4 Includes "black other."
5 First episode.
6 Uncomplicated infection.
7 Number of partners in past 12 months for Sheffield and St Thomas's clinics and in past 3 months for MMC (see methods for details).

Table 2 Numbers of attenders diagnosed with first episode genital warts, first episode genital HSV, uncomplicated gonorrhoea and uncomplicated chlamydia, showing concurrent infections, in attenders at three GUM clinics in England, April 1994 to September 1997 (+ = present, − = absent)

No of attenders	*(%)*	*Warts*	*HSV*	*Gonorrhoea*	*Chlamydia*
3320	(6.46)	+	−	−	−
3101	(6.04)	−	−	−	+
1184	(2.30)	−	+	−	−
957	(1.86)	−	−	+	−
233	(0.45)	−	−	+	+
187	(0.36)	+	−	−	+
28	(0.05)	−	+	−	+
21	(0.04)	+	+	−	−
21	(0.04)	+	−	+	−
11	(0.02)	−	+	+	−
9	(0.02)	+	−	+	+
2	(0.00)	−	+	+	+
42 297	(82.34)	−	−	−	−
Total 51 371	(100)				

CURRENT PUBLICATIONS

Selected titles form recent reports published worldwide are arranged in the following sections:

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Hepatitis
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Human papillomavirus infection
Cervical cytology and colposcopy
Other sexually transmitted infections
Public health and social aspects
Microbiology and immunology
Dermatology
Miscellaneous

Gonorrhoea

Sexually transmitted disease clinic clients at risk for subsequent gonorrhea and chlamydia infections—possible 'core' transmitters.
RA GUNN, S FITZGERALD, SO ARAL. *Sex Transm Dis* 2000;**27**:343–9

Gonorrhea among men who have sex with men: outbreak caused by a single genotype of erythromycin-resistant *Neisseria gonorrhoeae* with a single-base pair deletion in mtrR promoter region.
MS XIA, WLH WHITTINGTON, WM SHAFER, KK HOLMES. *J Infect Dis* 2000;**181**:2080–2

Amultiplex polymerase chain reaction to differentiate β-lactamase plasmids of Neisseria gonorrhoeae.
HM PALNER, JP LEENING, A TURNER. *J Antimicrob Chemother* 2000;**45**:777–82

A typing system for *Neisseria gonorrhoeae* based on biotinylated oligonucleotide probes to PIB gene variable regions.
DK THOMPSON, CD DEAL, CA ISON *et al*. *J Infect Dis* 2000;**181**:1652–60

The lipopolysaccharide structures of *Salmonella enterica* serovar *typhimurium* and *Neisseria gonorrhoeae* determine the attachment of human mannose-binding lectin to intact organisms. M DEUYATROVAJOHNSON, IH REES, BD ROBERTSON *et al*. *Infect Immun* 2000;**68**:3894–9

Expression of AniA , the major anaerobically induced outer membrane protein of *Neisseria gonorrhoeae*, provides protection against killing by normal human sera.
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Chlamydia

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