

**Sexual Health and HIV Academic Unit**

**Summary Report 2021**

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## **Introduction**

University Hospitals Birmingham NHS Foundation Trust (UHB) works in partnership with Birmingham City University (BCU) and University of Birmingham (UoB) to improve the delivery of high quality sexual and reproductive healthcare through:

- a program of health care services research
- increasing research capacity within the field of sexual health and HIV
- contributing to the research and teaching programmes within UHB, BCU and UoB
- supporting the National Institute for Health Research (NIHR) Clinical Research Network

Our partners over the past year have included the Birmingham City Council, Coventry University, Warwick University, University of Nottingham, Glasgow Caledonian University, University College London, Public Health England and the Sexually Transmitted Infections Research Foundation Charity.

The research team is based within the Umbrella sexual health partnership, and comprises:

- 8 PhD students
- 3 research fellows
- 1 research manager
- 3 research nurses
- 15 NHS consultant medical staff
- 6 medical trainees

## **Research Activity**

The major research themes of the unit are focused on:

- sexual health service delivery
- pelvic inflammatory disease
- human immunodeficiency virus (HIV)

### **1. Sexual health service delivery**

- a) In response to the increasing resistance of gonorrhoea to existing antimicrobials:
  - a. the GToG trial evaluated gentamicin as an alternative therapy for gonorrhoea (NIHR HTA £1.4 million – chief investigator J Ross)
  - b. an evaluation of the immune response to gonococcal infection (S McKeand/M Drayson/A Cunningham/J Ross)
  - c. molecular typing of *N. gonorrhoeae* to assess associations between sequence type and clinical presentation, and whether the immune response to gonorrhoea varies by *N. gonorrhoeae* genotype (S McKeand/A McNally/J Ross)
- b) VITA trial evaluating the safety and efficacy of lactic acid gel in the treatment of recurrent bacterial vaginosis (NIHR HTA £1.5 million – chief investigator J Ross)
- c) DEVA trial evaluating the safety and efficacy of dequalinium in the treatment of bacterial vaginosis (NIHR HTA £1.2 million – co-chief investigator J Ross)
- d) Understanding young people's perceptions of the value of STI testing – using a discrete choice experiment to identify key values which affect the decision to be tested for STIs

(Sexually Transmitted Infections Research Foundation / Queen Elizabeth Hospital Birmingham Charity £49 986 – L Jackson/J Ross)

- e) Identifying patient related outcome measures for clinical care following sexual assault - a systematic review (Sexually Transmitted Infections Research Foundation / Queen Elizabeth Hospital Birmingham Charity £11 126 – R Caswell/J Ross)
- f) Evaluating the impact on individuals and wider society of remote testing for STIs (Economic and Social Research Council Studentship £57 501 – PhD supervisors F Griffiths & J Ross)
- g) Understanding the costs and benefits of online screening and clinic-based screening for sexually transmitted infections (STIs) in asymptomatic patients: a case study of the Umbrella sexual health system in Birmingham (L Jackson/J Ross/N Thorley)
- h) Measuring patient satisfaction and experience after attendance at the Abuse Survivors Clinic: a new Umbrella Service in partnership with RSVP (R Caswell)
- i) An evaluation of pharmacy delivered sexual health services (PhD supervisors H Atherton/J Ross)
- j) MESARCH Multi-disciplinary evaluation of Sexual Assault Referral Centres (SARCs) for better Health (NIHR HSDR £1.2 million – co-applicant R Caswell)
- k) PrEP IMPACT Trial – implementation of pre-exposure prophylaxis for HIV (principal investigator D White)
- l) LUSTRUM Accelerated partner therapy for chlamydia trial (NIHR PgAR – principal investigator J Ross)
- m) VIOLET trial evaluating efficacy and safety of VT1161 a new anti-fungal agent, for the management of recurrent vulvovaginal candida infections (UK chief investigator J Ross)
- n) Identifying and developing approaches for the economic evaluation of sexually transmitted infection screening and testing interventions: a case study of the Umbrella sexual health system in Birmingham and Solihull (PhD project – supervisor J Ross)
- o) Measuring and assessing patient experience and satisfaction with Umbrella services (PhD project – supervisors T Roberts/L Jackson/J Ross/N Thorley)
- p) Teens' experiences of sexual assault (PhD project – supervisors J Ross/R Caswell)
- q) Exploring understanding of and reasoning for the healthcare choices made after disclosing sexual violence and sexual abuse, a mixed method research project (PhD project R Caswell – supervisor J Ross)
- r) EAGLE study - a randomised controlled trial assessing a new antibiotic therapy (Gepotidacin) for gonorrhoea (UK chief investigator J Ross)
- s) SAFETXT trial – evaluating the use of text messaging to reduce the rate of recurrence of sexually transmitted infections (principal investigator J Ross)

- t) ASSIST study - assessing the impact of introducing online STI postal self-sampling services into sexual health provision within the UK on health inequalities, access to care and clinical outcomes (NIHR HS&DR £927,225 - co-applicant J Ross)
- u) An evaluation of the 'mystery shopper' (unannounced standardised patient) as an intervention to assess and improve the quality of service delivery in a community pharmacy sexual health service (study design and delivery - J Ross)

Additional support for the theme of sexual health service delivery was provided via:

- development and maintenance of the UK National STI Treatment guidelines (national committee chairman – K Radcliffe)
- leadership in the development of European STI Treatment Guidelines in association with the International Union against Sexually Transmitted Infections (IUSTI) and World Health Organisation (WHO) (Editorial Board - J Ross)
- national Gonococcal Resistance to Antimicrobials Surveillance Group (steering group – J Ross)

## 2. Pelvic inflammatory disease pathogenesis and management

- a) The department contributes to the international Cochrane Collaboration via the Editorial Board of the Sexually Transmitted Diseases Collaborative Review Group, which has published a Cochrane review for pelvic infection management (J Ross)
- b) UK national guideline for PID (lead author J Ross)
- c) European national guideline for PID (lead author J Ross)

## 3. HIV

A number of commercial/non-commercial and collaborative studies were undertaken in the past year:

- a) AIR study – a case-control study measuring the immune response following vaccination in HIV infected patients, and factors influencing protective immunity (chief investigator K Manavi)
- b) START study – an international, multicentre trial assessing the optimal time after HIV infection to commence antiretroviral therapy. Three sub studies include: informed consent, genomics and pulmonary (principal investigator J Ross)
- c) TANGO GSK 204862 - a phase III, randomized, multicenter study evaluating the efficacy, safety, and tolerability of switching to dolutegravir plus lamivudine (principal investigator J Ross)
- d) GS-US-380-1489 study – a randomised controlled trial comparing two integrase inhibitor based HIV treatment regimens (principal investigator J Ross)
- e) GS-US-380-1878 study – a randomised controlled trial assessing the effect of switching from a protease inhibitor based regimen to an integrase inhibitor (principal investigator J Ross)
- f) GS-US-380-1490 study – a multicentre trial evaluating a new integrase inhibitor for HIV treatment (principal investigator J Ross)

- g) AALPHI study (Adolescents and Adults living with Perinatal HIV) A Medical Research Council 5-year cohort study of perinatally infected and HIV-affected (HIV negative) young people (principal investigator C Robertson)
- h) CHIPS+ (Collaborative HIV Paediatric Study) – a paediatric-adult cohort study of perinatally HIV infected patients assessing long term outcomes (principal investigator C Robertson)
- i) B-cell Immune Responses to Pneumococcal Vaccination in HIV-infected patients (PhD supervisors A Richter & K Manavi)

### **Contributions to the Wider Research Community**

Over the past year, wider research contributions have included:

#### 1. Support for the National Institute for Health Research (NIHR):

- NIHR Clinical Research Network national speciality lead for sexual health (J Ross)
- recruitment by the unit for NIHR portfolio studies:
  - a) VITA
  - b) PrEP IMPACT Trial
  - c) LUSTRUM
  - d) SAFETXT
- NIHR HTA Funding Committee (Commissioned Research) – evaluation and allocation of funding for NIHR commissioned research (J Ross)
- NIHR Health Technology Assessment Journal editor (J Ross)
- NIHR Dissemination Centre Panel of Expert Commentators (J Ross)

#### 2. Editorial support for medical publications (J Ross):

- associate editor and editorial board of *Sexually Transmitted Infections*
- editorial board of *International Journal of STD & AIDS*

#### 4. PhD Supervisor

Warwick University: 2 students (J Ross)

Birmingham University: 4 students (J Ross/N Thorley)

Birmingham City University: 1 student (J Ross/R Caswell)

### **International Partnerships**

The unit continues to work with the International Union against Sexually Transmitted Infections (IUSTI) supporting the publication of *STI Global Review* which provides a focus for global STI-related issues and highlights the activities of IUSTI.

## **National and International Presentations**

### *Prof. Jonathan Ross*

- January 2020 From global to local: addressing the threat of AMR to STI control (London School of Hygiene and Tropical Medicine), London  
How should we use new STI treatments in the future? (oral symposium speaker)
- March 2020 Public Health Research & Science Conference, Manchester  
Developing a model to predict individualised treatment for gonorrhoea (oral presentation by Lucy Findlater)
- October 2020 British Association for Sexual Health and HIV Annual Conference, Online
1. Gonorrhoea management - the future (oral plenary speaker)
  2. Spontaneous clearance of genital and extragenital *Neisseria gonorrhoeae*: data from GToG (oral presentation by Sarah Mensforth) – oral presentation winner
  3. Determining the prevalence of and risk factors associated with *Mycoplasma genitalium* macrolide resistance in a clinic-attending population in England (oral presentation by Rachel Merrick)
  4. How is economic evidence conceptualised when evaluating sexual health interventions and the control of sexually transmitted infections (STIs)? – A systematic review (poster presentation) – poster prize winner
- November 2020 Joint Australasian HIV&AIDS and Sexual Health Conference, Online  
Evaluating sexual health interventions for the control of sexually transmitted infections – A systematic review to understand the conceptualisation of economic evidence (poster presentation)
- November 2020 Westminster Health Forum policy conference - Next steps for sexual and reproductive health services in England, Online  
Improving Prevention – Tackling Antimicrobial Resistance (oral plenary speaker)

### *Dr. Rachel Caswell*

- October 2020 British Association for Sexual Health and HIV Annual Conference, Online  
Is it time BASHH considered different auditable outcomes for sexual transmitted infection (STI) treatment?: findings from a local audit.

### *Dr Penny Goold*

- October 2020 British Association for Sexual Health and HIV Annual Conference, Online  
To what extent are community pharmacists “Spotting the Signs” and acting appropriately according to the Child Sexual Exploitation Safeguarding training?

### *Dr Kate Campbell*

- November 2020 National RCOG Annual Professional Development Conference. Virtual event.  
Postnatal Contraception in a COVID World.

### *Dr Sarah Mensforth*

- October 2020 British Association for Sexual Health and HIV Annual Conference, Online  
Spontaneous clearance of genital and extra-genital *Neisseria gonorrhoeae*: data from the GToG trial

## **Publications**

*Prof. Jonathan Ross:*

Factors associated with time to presentation for individuals with symptomatic uncomplicated genital gonorrhoea; a cross sectional cohort study of GToG trial participants

O Ayinde, W Tan, T Hepburn, JDC Ross

Sex Trans Infect 2020;96:251-257. doi:10.1136/sextrans-2019-054253

The frontiers of addressing antibiotic resistance in *Neisseria gonorrhoeae*

D Rubin, JDC Ross, YH Grad

Translational Research 2020 doi: 10.1016/j.trsl.2020.02.002

The association between severe menopausal symptoms and engagement with HIV care and treatment in women living with HIV

D Solomon, C Sabin, F Burns, R Gilson, S Allan, A de Ruiter, J Fox, Y Gilleece, R Jones, F Post, JDC Ross, S Tariq

AIDS Care 2020 <https://doi.org/10.1080/09540121.2020.1748559>

Factors associated with severity and resolution of intramuscular injection site pain following treatment for uncomplicated gonorrhoea: A prospective cohort study of GToG trial participants

O Ayinde, JDC Ross

Sexual Health 2020 <https://doi.org/10.1071/SH19176>

European Guideline for the Management of Anogenital Warts

Gilson R, Nugent D, Werner RN, Ballesteros J, Ross JDC

J Eur Acad Dermatovenereology 2020 <http://dx.doi.org/10.1111/jdv.16522>

Spontaneous clearance of genital and extra-genital *Neisseria gonorrhoeae*: data from the GToG trial

Mensforth S, Ross JDC

Sex Trans Infect 2020;96:556–561 doi:10.1136/sextrans-2020-054500

Antibiotic therapy for pelvic inflammatory disease

Savaris RF, Fuhrich DG, Maissiat J, Duarte RV, Ross JDC

Cochrane Database of Systematic Reviews 2020, Issue 8. Art. No.: CD010285. DOI: 10.1002/14651858.CD010285.pub3

Time to resolution of genital symptoms for uncomplicated gonorrhoea: a prospective cohort study

O Ayinde, JDC Ross

Sex Trans Infect 2020 doi:10.1136/sextrans-2020-054626

Perceptions and Experiences of Internet-Based Testing for Sexually Transmitted Infections: Systematic Review and Synthesis of Qualitative Research

Spence T, Kander I, Walsh J, Griffiths J, Ross JDC

Journal of Medical Internet Research 2020;22(8):e17667

Staff and users' experiences of pharmacy-based sexual and reproductive health services: A qualitative interview study from the UK

Gauly J, Ross JDC, Parsons J, Atherton H

Pharmacy 2020;8,206 doi:10.3390/pharmacy8040206

2020 European guideline for the diagnosis and treatment of gonorrhoea in adults



Unemo M, Ross JDC, Serwin A, Gomberg M, Cusini, M, Jensen J  
International Journal of STD & AIDS. 2020 doi: 10.1177/0956462420949126 (online ahead of print)

How, why, for whom and in what context, do sexual health clinics provide an environment for safe and supported disclosure of sexual violence: protocol for a realist review

Caswell R, Maidment I, Ross JDC, Bradbury-Jones C  
BMJ Open (in press 2020)

The utilisation of pharmacy-based sexual and reproductive health services: A quantitative retrospective study

Gauly J, Atherton H, KimaniPK, Ross JDC  
Sex Trans Infect 2020 (in press)

The treatment of mild to moderate pelvic inflammatory disease with a short-course azithromycin based regimen versus ofloxacin plus metronidazole: results of a multicentre, randomised controlled trial

Dean G, Soni S, Pitt R, Ross JDC, Sabin C, Whetham J  
Sex Trans Infect (in press 2020)

*Dr Meg Boothby*

Rapid onset and progression of myelopathy following an STI: a case for screening?

Caswell RJ, Nall P, Boothby M, Taylor GP

*Sexually Transmitted Infections* 2019;95:244-245.

*Dr. Rachel Caswell*

Survivor, family and professional experiences of psychosocial interventions for sexual abuse and violence: A qualitative evidence synthesis (Protocol).

Brown SJ, Khasteganan N, Carter GJ, Brown K, Caswell RJ, Howarth E, Feder G, O'Doherty L.  
Cochrane Database of Systematic Reviews 2020, Issue 6. Art. No.: CD013648.

How, why, for whom and in what context, do sexual health clinics provide an environment for safe and supported disclosure of sexual violence: protocol for a realist review BMJ

Caswell RJ, Maidment I, Ross JDC, et al

Open 2020;10:e037599. doi: 10.1136/bmjopen-2020-037599

Rapid onset and progression of myelopathy following an STI: a case for screening?

Caswell RJ, Nall P, Boothby M, Taylor GP

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*Dr Sarah Mensforth*

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Mensforth S, Ross JDC

Sex Trans Infect 2020;96:556–561 doi:10.1136/sextrans-2020-054500

*Dr Kulsum Jaffer*

Our COVID-19 cloud silver lining': the initiation and progress of postnatal contraception services during the COVID-19 pandemic in a UK maternity hospital

K Campbell, R Barlow-Evans, S Jewell, N Woodhead, R Singh, K Jaffer

BMJ Sex Reprod Health 2020. doi:10.1136/bmjsexrh-2020-200764

*Dr Kate Campbell*

Our COVID-19 cloud silver lining: the initiation and progress of postnatal contraception services during the COVID-19 pandemic in a UK maternity hospital.

Campbell K, et al. 2020

BMJ Sex Reprod Health 2020. doi:10.1136/bmjsex-2020-200764

### **Contributions to the NHS and/or Sexual Health**

In a year of challenging and uncertain times, many staff have provided vital contributions to the NHS by supporting in different areas of our Trust, redeployment to infection diseases wards and initiating new guidelines, pathways and policies including COVID contingency plans.

*Prof. Jonathan Ross:*

#### **National**

- Vice President – British Association for Sexual Health and HIV
- Diploma in HIV Medicine Examiner
- National Institute for Health Research
  - Journal Library Editor
  - Health Technology Assessment Grant Funding Committee
  - National Research Network lead for Sexual Health

#### **International**

- Treasurer – International Union against Sexually Transmitted Infections world executive
- Cochrane Collaboration Sexually Transmitted Diseases Editorial Review Group
- European STI Guidelines Editorial Board

*Dr. Sarah Barrett:*

#### **National**

- Member of the SAC and regional training programme director of GUM
- Less Than Full Time Regional Advisor

*Dr. Meg Boothby:*

#### **National**

- Examiner for Diploma in Genitourinary Medicine at the Society of Apothecaries of London.
- Undergraduate lead for Genitourinary Medicine at University of Birmingham Medical School
- Lead for Birmingham HTLV Service - Multidisciplinary clinic for the assessment and treatment of patients diagnosed with Human T-cell Lymphotropic Virus (HTLV)

*Dr. Rachel Caswell:*

#### **National**

- Secretary for the Sexual Violence Special Interest Group of BASHH
- Day Course organiser for BASHH STI/HIV Course
- Guideline group for BASHH Guidelines HTLV Testing

*Dr Kulsum Jaffer:*

#### **National**

- Training Programme Director for the Community Sexual and Reproductive Health Training Programme in the West Midlands

- Member of the SAC for CSRH Training
- Educational supervisor for CSRH trainees
- FSRH Instructing Doctor

*Dr. Claire Robertson:*

**National**

- Member of Clinical Governance Committee, BASHH
- Chair of the West Midlands, BASHH
- RCP Regional Specialty Adviser for GU Medicine
- Member of BASHH Adolescent Special Interest Group (ASIG)

*Dr. Nicola Thorley:*

**National**

- NICE Fellowship (April 2018-2021)
- NICE Adoption and Impact Reference Panel member
- PhD Co-supervisor for a Health Economics student at the University of Birmingham, measuring and assessing patient experience and satisfaction with sexual health services
- Clinical input into healthcare evaluation with Aston University and Umbrella Sexual Health: Supporting access to sexual healthcare and consultations: A research study

*Dr. Kate Johnston*

**National**

- FSRH Trainer and Examiner for the DFSRH and Letters of Competence

*Dr. Penny Goold:*

**National**

- Member of BASHH Sexual Dysfunction Specialist Interest Group
- Supervision of fourth year University of Birmingham Pharmacy undergraduate students undertaking final year projects.

*Dr. Kaveh Manavi:*

**National**

- Treasurer of BASHH
- Member of Clinical Governance Committee, BASHH
- Chair of West Midlands HIV Network
- Member of BASHH website group
- MRCP PACES examiner for Royal College of Physicians

*Dr. Ngozi Dufty:*

**National**

- BASHH Lead for STI/HIV Course – running 2 x week long courses per year
- BASHH Education Committee
- Royal College of Physicians' Regional Advisor (West Midlands)
- Regional committees - West Midlands Foundation School Board, the Postgraduate School of Medicine Board, Postgraduate Medical and Dental Education Board (Health Education Midlands), regional and national RCP RA committee
- Lead for West Midlands General Internal Medicine Registrar teaching programme

- National Recruitment Interview Panel (Health Education England and UK Foundation Programme)

### **Armed Forces (Ministry of Defence)**

- Defence Specialist Advisor for Sexual Health and HIV
- Consultant Advisor (Army) Genitourinary Medicine
- Chair - Defence Sexual and Reproductive Health Expert Advisory Group
- Sexual Health Lead – Military Genitourinary Trauma Working Group
- Defence Lead – MOD STIF and accreditation
- Defence Clinical Lead – Conflict Related Sexual Violence

### **Education**

- Associate Dean – Defence Deanery (Midlands)

*Dr. Denise Williams:*

#### **National**

- RCOG Faculty Development Framework Tier 2 educator for the development and delivery of education in a local/regional setting
- FSRH Instructing doctor in Birmingham/Solihull Training Programme

*Dr Sarah Mensforth:*

#### **National**

- Member of BASHH Sexual Violence Special Interest Group (SVSIG)
- Day Course organiser for BASHH STI/HIV Course

*Dr. Hannah Church*

#### **National**

- Doctors in Training representative to BASHH board
- Doctors in Training representative to the Royal College of Physicians GUM Specialist Advisory Committee

*Dr Kate Campbell*

#### **National**

- FSRH CEU Guideline development group Breast Cancer and contraception
- FSRH Events committee
- Birmingham Fast Track Cities Plus project as part of work BCC PH department
- National FSRH Annual Scientific Meeting Appointed to judge the poster and oral competition
- Developed LocSSIP for IUC insertion
- Co-developed a COVID contingency plan for Umbrella and BWH contraception

*Dr Indhu Prabakar*

#### **National:**

- Chair of Postgraduate MFSRH Examinations Committee, Faculty of Sexual & Reproductive Health.
- Specialist Advisor to the CQC – Women's Health and Sexual Health Services
- FSRH Tier 3 Educator / trainer
- BASHH Integrated Competency Trainer
- Peer Reviewer for for BMJ Sexual and Reproductive Health, European Journal of Contraception, Journal of Obstetrics and Gynaecology