9th Annual Conference of the Children’s HIV Association (CHIVA)

Friday 22 May 2015

Stamford Court
University of Leicester

www.chiva.org.uk
Registered Charity No: 1122356
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Badges must be worn at all times in order to gain access to the lecture theatre, exhibition and dining areas

Venues and locations

All locations are at Stamford Court, University of Leicester unless otherwise stated

Registration  Stamford Court  Side entrance
Lecture Theatre  Gilbert Murray
Catering, Exhibition & Poster Presentations  Hospitality Lounge
CHIVA Dinner  Chutney Ivy

Executive Committee

Dr Steven Welch  Chair  Birmingham Heartlands Hospital
Dr Anton Tan  Honorary Treasurer  North Manchester General Hospital
Dr Amanda Williams  Honorary Secretary  North West London Hospitals NHS Trust
Dr Srini Bandi  Conferences Chair  Leicester Royal Infirmary
Miss Michelle Overton  Local Host  University of Leicester
Dr Alasdair Bamford  St Thomas’ Hospital, London
Dr Jolanta Bernatoniene  Bristol Royal Hospital for Children
Dr Tomás Campbell  Newham Psychological Services, London
Dr Katja Doerholt  St George’s Hospital, London
Miss Emily Hamblin  National Children’s Bureau
Mrs Ailsa Pickering  Royal Victoria Infirmary, Newcastle
Dr Fiona Thompson  Northampton General Hospital

6 CPD Credits  RCPCH accredited
Introduction

Dear Colleague

We are pleased to announce the 9th Annual Conference of the Children’s HIV Association. The conference is to be held at the University of Leicester and we are pleased that Michelle Overton has been able to accept our invitation to be our Local Host at the conference.

We would like to thank all our speakers who have agreed to present their work at this conference. I am certain that their experience and expertise will benefit all who are in attendance.

We are excited that the Annual Conference programme in 2015 will include two sessions focusing on Sexual Health Training. In addition, there will be lectures looking at treatment guidelines, talking to young people about HIV, and psychological standards. One of the highlights of the conference will be the CHIVA Youth Committee session, which will provide an update on the summer camp and the work of the CHIVA projects team.

We feel sure that these sessions will prove to be very topical as well as raise some interesting points to be debated and discussed. The CHIVA AGM will be held prior to lunch and I would encourage all members to attend this meeting as it provides a forum to present any points which they may have to the CHIVA officers and members of the Executive Committee.

We hope very much that you will all enjoy the conference and find it of relevance to both your educational and your practical needs.

Best wishes

Dr Steven Welch
Chair
Children’s HIV Association
Programme

9th Annual Conference of the Children’s HIV Association (CHIVA)

Friday 22 May, 2015
Stamford Court · University of Leicester

CONFERENCE LOCAL HOST
Michelle Overton University of Leicester

0845–1600 Registration and exhibition open at Stamford Court

0900–0910  Welcome by the Chair of the Children’s HIV Association (CHIVA)
Dr Steven Welch Birmingham Heartlands Hospital
Welcome from the Conference Chair
Dr Srini Bandi Leicester Royal Infirmary
Welcome from the CHIVA Youth Committee

CHIVA Sexual Health Training Session 1

Chairs: Dr Alasdair Bamford St Thomas’ Hospital, London
Dr Srini Bandi Leicester Royal Infirmary

0910–0940 Adolescent sexual health and the media
Dr Sophie Khadr UCL Institute of Child Health, London

0940–1005 Top tips on taking a history
Dr Aseel Hegazi St George’s Hospital, London

1005–1040 Update on female genital mutilation (FGM)
Ms Hoda Ali Ealing Hospital, London

1040–1100 Morning coffee

CHIVA Sexual Health Training Session 2

Chairs: Dr Anton Tan North Manchester General Hospital
Dr Amanda Williams North West London Hospitals NHS Trust

1100–1135 Update on sexually transmitted infections (STIs)
Dr Selena Singh St Thomas’ Hospital, London

1135–1210 Safeguarding, exploitation and sexual assault
Dr Annette Langseth The Haven, London

1210–1250 Let’s talk about sex
Ms Magda Conway and Ms Amanda Ely CHIVA Projects

1250–1310 CHIVA AGM

1250–1350 Lunch and Posters
Programme

Oral Research Presentations Session

Chairs: Dr Jolanta Bernatoniene  Bristol Royal Hospital for Children  
Dr Fiona Thompson  Northampton General Hospital

1350–1400  
Abstract O1  
Neurocognitive function in perinatally HIV-infected young people and HIV-negative siblings in England  
Dr Ali Judd  MRC Clinical Trials Unit at UCL, London

1400–1410  
Abstract O2  
Teachers’ awareness of HIV and the needs of children affected by HIV  
Dr Steven Welch  Birmingham Heartlands Hospital

1410–1420  
Abstract O3  
Malignancy in HIV-positive young people  
Dr Colin Ball  King’s College Hospital, London

1420–1430  
Abstract O4  
Maternal autonomy vs infant advocacy: when parents decline HIV testing  
Dr Tom Holiday  North West London Hospitals NHS Trust

Janssen Invited Lecture

Chairs: Dr Jolanta Bernatoniene  Bristol Royal Hospital for Children  
Dr Fiona Thompson  Northampton General Hospital

1430–1500  
Treatment Guidelines – what’s new?  
Dr Alasdair Bamford  St Thomas’ Hospital, London

CHIVA Plenary Session 1

Chairs: Dr Katja Doerholt  St George’s Healthcare NHS Trust  
Mrs Ailsa Pickering  Royal Victoria Infirmary, Newcastle

1500–1520  
Talking to young people about HIV  
Mrs Sheila Donaghy  St George’s Hospital, London

1520–1540  
CHIVA Projects and Youth Committee Update  
Ms Magda Conway  CHIVA Projects

1540–1600  
Afternoon tea

CHIVA Plenary Session 2

Chairs: Dr Tomás Campbell  Newham Psychological Services  
Miss Emily Hamblin  National Children’s Bureau

1600–1630  
Life after CHIPS: CHIPS and AALPHI update  
Ms Marthe Le Prevost  MRC Clinical Trials Unit at UCL, London

1630–1700  
Psychology services in paediatric HIV: making connections or filling the gaps?  
Ms Debbie Levitt  Royal Free Hospital, London  
Mrs Diane Melvin  Imperial College Healthcare NHS Trust, London

1700–1705  
CHIVA Awards Ceremony and Close  
Dr Amanda Williams  Chair of the Children’s HIV Association (CHIVA)
Conference Information

Conference venue

University of Leicester
Stamford Court · Manor Road · Leicester LE2 2LH
Telephone: 0116 233 1680
www.leicesterconferences.co.uk

Stamford Court is a premier conference centre set in the heart of landscaped Edwardian gardens. The venue has purpose-built meeting and conference facilities and CHIVA is delighted to be able to use these for our annual conference in 2015. Ample parking is available for delegates on a complimentary basis. The venue is a short taxi ride from Leicester mainline train station.

Registration

The registration fee includes access to all scientific sessions, the exhibition area, lunch and refreshments throughout the day.

Delegate badges

Badges must be worn at all times to gain access to the lecture theatre, dining and exhibition areas.

Continuing Professional Development (CPD)

The Royal College of Paediatrics and Child Health (RCPCH) has approved this event for CPD credits, in accordance with the current RCPCH CPD Guidelines. The entire conference has been allocated 6 CPD credits. Medical staff in career grade posts who are enrolled with one of the Royal Medical Colleges for Continuing Professional Development will be entitled to receive CPD credits at the rate of one CPD credit per conference hour (exclusive of travel, refreshments, pharmaceutical-supported sessions and social events). Please be advised that the attendance list of the conference will be forwarded to the Royal College of Paediatrics and Child Health upon request.

CHIVA Dinner

Chutney Ivy Restaurant & Bar
Leicester LE1 1TR
Telephone: 0116 251 1889
www.chutneyivy.com

A CHIVA Dinner has been organised at 2000 for the evening of Thursday 21 May at the Chutney Ivy Restaurant in Leicester.

The evening will begin with a short drinks reception, and then dinner and entertainment. It is anticipated that the evening will give delegates the opportunity to socialise before the conference and to be in situ for the start of the conference programme the following morning.

Accommodation

Please note that the registration fee does not include accommodation. If you have not already done so, you can arrange accommodation by contacting the conference headquarter hotel, the Ramada Encore Leicester City Centre, directly.
Conference Information

Posters
All poster boards will be numbered and poster presenters should use the board displaying the number allocated to their poster. All poster presenters should be available by their poster for the final 30 minutes of the lunchtime session for potential discussion with delegates and poster judges. The poster judges will review the posters and subsequently select the winner of the CHIVA/Mediscript Best Poster Presentation Award which will be announced at the Prizes and Awards Ceremony at 1700.

Oral research presentations
Oral research presenters are reminded to ensure they bring their oral research presentation slides to the conference in addition to sending them to the Conference Organisers in advance. Any slides must be passed to the audio-visual technicians in good time for their session. The CHIVA Best Oral Presentation prize will be awarded at the Prizes and Awards Ceremony at 1700.

Scholarships

CHIVA Community Registration:
CHIVA Community Registrations have been awarded to four UK-based community registrants to assist them to attend the conference. For those applicants selected, all registration fees are paid by CHIVA.

CHIVA Registration Scholarships
These have been made available to assist delegates who have financial constraints preventing them from attending the conference. Up to five awards have been made available, to cover the conference registration fee.

Awards

CHIVA Best Oral Research Presentation Award
CHIVA will make an award for the best oral research presentation at the 9th Annual Conference of CHIVA. The presentation of the award will be made during the Awards Ceremony at 1700 in the lecture theatre. It is requested that all presenters of oral research presentations be available in the lecture theatre at this time in case their presentation is selected, enabling them to collect their award in person.

CHIVA/Mediscript Best Poster Research Presentation Award
In recognition of the collaboration between Mediscript and CHIVA over the years, Mediscript is supporting an award for the best poster presentation at the 9th Annual Conference of CHIVA. The presentation of the award will be made during the Awards Ceremony at 1700 in the lecture theatre. It is requested that all poster presenters be available in the lecture theatre at this time in case their presentation is selected, enabling them to collect their award in person.

Exhibition
The exhibition represents an integral element of the conference, providing participants with an excellent platform for networking as well as an opportunity to gain further insight into cutting-edge technology, the latest healthcare solutions and services.
Plenary Speaker Biographies

Hoda Ali has undergone FGM. At age seven she was cut in Somalia. By age 12 she experienced her first of many acute hospitalisations due to complications from FGM; stagnant infected menses had caused pelvic inflammatory disease. Hoda had been unable to menstruate as a result of the small hole left after FGM. After many surgical procedures in Somalia, Djibouti and Italy, she first started menstruating at age 17. Medical complications from FGM continued to impact on her life: infections, adhesions, subfertility, IVF, miscarriage and finally the medical advice that the risk to internal organs was too great, and that IVF could no longer be pursued. Hoda is a survivor of FGM who voices the pain, comforts the victims and campaigns to protect the girls. Hoda trusts in life and a future, and gives hope to FGM survivors.

Alasdair Bamford is a doctor specialising in Paediatric Infectious Diseases and Immunology currently working at the Evelina London Children’s Hospital. He is joint first author on the 2015 PENTA Treatment Guidelines, a CHIVA Trustee and Chair of the CHIVA Guidelines Subcommittee. He has recently completed his PhD in Paediatric HIV Immunology, which was a collaborative project including St Mary’s Hospital, Imperial College London and the Institute of Child Health.

Srini Bandi is a Consultant Paediatrician with an interest in Paediatric Infectious Disease at Leicester Royal Infirmary. He is the lead for Paediatric HIV and TB Services in Leicester. Srini is the Lead Clinician for East Midlands Paediatric HIV Network. He has been a member of the CHIVA Executive Committee since 2012 and is Chair of the Conferences Subcommittee.

Magda Conway has worked with children, young people and families living with HIV for the last 12 years. For five of these she was the UK Policy Lead for this group, producing research, guidance and advocacy. She is now a freelance consultant, primarily working for the Children’s HIV Association, managing a portfolio of work from direct support with children and families, through to writing guidance and training programmes. Prior to this, Magda worked with and looked after children, ran community development projects, and worked in HIV/sexual health promotion and teenage pregnancy reduction.

Sheila Donaghy has worked in Paediatric HIV for the last 19 years at St George’s Hospital, London. Her interests are around adherence to medication, and in talking to children about their HIV. Sheila has jointly written the CHIVA guidance on talking to children about HIV with Diane Melvin.

Aseel Hegazi is a Consultant in HIV Medicine and Sexual Health at St George’s University Hospital in London.

Sophie Khadr is a Consultant Paediatrician and Clinical Lead for the London Sexual Assault Referral Centres, the Havens, at King’s College Hospital NHS Foundation Trust.
**Plenary Speaker Biographies**

**Annette Langseth** is a Paediatrician with an interest in Adolescent Medicine. During her paediatric training, she has worked as a Sexual Offences Examiner at one of the three London Havens. The Havens are Sexual Assault Referral Centres. At the Havens Annette sees children, adolescents and adults who have been sexually assaulted. She and her colleagues provide advice, forensic examination and follow-up care including counselling, tests and treatment.

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**Marthe Le Prevost** is a Senior Research Nurse at the MRC Clinical Trials Unit at UCL. She has over 15 years’ academic and clinical experience working in Paediatric HIV. She is responsible for the design, co-ordination and delivery of the Adolescent and Adults Living with Perinatal HIV Cohort (AALPHI). Marthe has been awarded an MRC studentship to carry out her PhD at the London School of Hygiene and Tropical Medicine where she is carrying out a mixed-methods study looking at the experiences and outcomes of perinatally HIV-infected young people transitioning to adult care.

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**Debbie Levitt** is a Chartered Psychologist working in the Medical Specialties Directorate at the Royal Free London NHS Foundation Trust. She has specialised in working with children and families for over 25 years. Debbie currently works across the lifespan and is Lead in the Paediatric and Antenatal HIV Psychology Service. She is an active member of the UK Paediatric HIV Psychology Group (PHP) and is on the executive of the HYPNet (HIV Young Persons Network) representing PHP. Debbie has a long involvement in Primary Care and runs a Specialist Psychology Service for doctors and medical students working in the health service. She is also involved in the supervision and training of trainee psychologists.

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**Diane Melvin** is a Clinical Psychologist who recently retired from working with the Family Clinic team at St Mary’s Hospital in London. This was a post held for over 20 years. Her lecture, entitled Psychology services in paediatric HIV: making connections or filling the gaps?, is being presented on behalf of the Paediatric HIV Psychology (PHP) group: a forum in which psychologists working within the UK and Ireland with children, young people and their families living with HIV can share ideas and practice. The standards to be presented have been produced by the PHP to highlight key aspects of care which psychology can provide to Paediatric HIV using a framework developed in other chronic childhood conditions.

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**Selena Singh** is a final year SpR in GU Medicine and HIV at Guy’s & St Thomas’ Hospitals. Throughout her training she has been interested in the sexual and reproductive health of adolescents and young adults. She has also worked in the HIV Young Persons’ Clinic at St Thomas’. Selena is a member of HYPNet and has participated in audits with this group which have been presented at both BHIVA and CHIVA. She is the SpR representative for the BASHH Adolescent Sexual Interest Group.

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**Steven Welch** is a Consultant in Paediatric HIV and Infectious Diseases at Heartlands Hospital, Birmingham and has been Chair of CHIVA since 2011. Steven is a member of the PENTA Steering Committee, and is jointly in charge of PENTA’s training activities. His current priority is securing the future of children’s HIV services under the new NHS commissioning arrangements.
O1
Neurocognitive function in perinatally HIV-infected young people and HIV-negative siblings in England
A Judd1, 2, A Nunn1, M Le Prevost1, K Sturgeon1, DM Gibbs1, 3, A Arenas-Pinto1, 3, D Melvin3
1MRC Clinical Trials Unit at University College London, London, UK; 2Imperial College London, London, UK
Background: Perinatally HIV-infected (PHIV+) children, particularly those with a CDC C diagnosis, perform less well than controls in some neurocognitive tasks, but studies often have small sample sizes and unsuitable control groups. Little is known about neurocognitive function of PHIV+ young people.

Methods: We analysed baseline data from the Adolescents & Adults Living with Perinatally Infected Virus cohort of 270 PHIV+ aged 13–21 and 80 HIV- siblings aged 13–23 in England. Participants completed 12 tests (Cogstate ADHD, Color Trails 1&2, Wechsler Adult Intelligence Scale 4th coding, pegboard) covering 6 domains. We calculated z-scores by domain, a summary z-score (NF-6) across the 6 domains, and the proportion <1 standard deviation (SD) below the population mean in 2 domains (Frascati criteria). T-tests/ANOVA compared means and z proportions. Results: 160(59%) and 55(69%) of PHIV+ and HIV- were female, 225(83%) and 57(71%) were black African, and median age was 16(15,[18] and 16(14,18) years respectively. In PHIV+, 218(81%) were on ART, and 68(25%) had a CDC C diagnosis. In both PHIV+ and HIV- mean z-scores were >0 for executive function, information processing speed, concentration/attention, and <0 for learning, memory and fine motor skills, though all were within +/-15 of normative scores (Table). PHIV+ z-scores were higher for information processing speed (p=0.02) and worse on learning (p=0.006) and memory (p=0.016) than HIV- for learning and memory, scores were particularly poor in PHIV+ with CDC C (p=0.027, respectively); data not shown. Median(3D) NF-6 z-scores were 0.2(0.6) in PHIV+ and 1.8(0.5) in HIV- (p=0.043), and 67(24%) of PHIV+ v. 19(23.8%) of HIV- were <1SD below the population mean in 2 domains (p=0.846). Further analyses will investigate potential predictors.

Table: Scores by domain in PHIV+ and HIV-

<table>
<thead>
<tr>
<th>Domain</th>
<th>PHIV+</th>
<th>HIV-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive function</td>
<td>0.9(1.1)</td>
<td>0.03(1.0)</td>
</tr>
<tr>
<td>Information processing speed</td>
<td>0.9(1.0)</td>
<td>0.3(0.9)</td>
</tr>
<tr>
<td>Attention/concentration</td>
<td>0.5(1.1)</td>
<td>0.6(1.7)</td>
</tr>
<tr>
<td>Learning</td>
<td>-0.4(0.9)</td>
<td>0.6(0.7)</td>
</tr>
<tr>
<td>Memory</td>
<td>-0.5(0.6)</td>
<td>0.1(0.6)</td>
</tr>
<tr>
<td>Fine motor skills</td>
<td>-0.17(0.7)</td>
<td>0.3(2.2)</td>
</tr>
</tbody>
</table>

Conclusions: Global cognitive scores were similar in PHIV+ and HIV- but concealed differences in individual cognitive domains. PHIV+ z-scores were lower than HIV- in learning and memory tasks, and poorer in those with CDC C, but indicated only mild difficulties. The true impact on day-to-day life is unclear and needs further investigation.

O2
Teachers’ awareness of HIV and the needs of children affected by HIV
S Welch1, M Conway2, S Nicholson3 and J Forni3
1CHILDREN’S HIV ASSOCIATION, 2CHIVA and Heartlands Hospital, Birmingham, UK; 3CHILDREN’S HIV ASSOCIATION, 4Vivance Healthcare, London, UK
Background: Stigma and discrimination continue to be a real issue for people living with HIV (PLWH). This is particularly pertinent to children and young people where school environments can be challenging. Sensitivity of teachers towards the issues faced by young PLWH is essential. Lack of awareness of such issues can lead to inadvertent problems and significant personal distress for PLWH and their families. Pupils have been excluded from schools after non-consensual disclosure of their HIV status. This study was designed to investigate UK secondary school teachers’ awareness of HIV and understanding of the needs of children affected by HIV.

Methods: Five hundred secondary school teachers in the UK participated in a 15-minute online survey between 26 September and 20 October 2014. They were questioned about their knowledge about HIV transmission, confidentiality considerations, their experience of dealing with students with or affected by HIV, available educational resources and school policy regarding HIV and pupils.

Results: Knowledge regarding HIV transmission routes was poor, with over half of teachers (52%) believing that HIV can be transmitted through sharing a razor or via spitting or biting. Nearly half of all teachers (47%) believed that children/young people acquire HIV through sex or injecting drug use (IVDU). A third of teachers (33%) surveyed were either unsure about confidentiality requirements for HIV or believed that there are none. Thirty eight percent of respondents were not aware of any guidance or materials for teachers about how to manage the needs of students with or affected by HIV. However, three-quarters (75%) of the surveyed teachers believed that it was the primary responsibility of all school staff members to look after the past students with or affected by HIV.

Conclusion: This research demonstrates significant knowledge gaps in HIV transmission and confidentiality requirements in secondary school age groups. This ambiguity can lead to inadvertent problems such as unauthorised HIV disclosure. Encouragingly most teachers believe that they are responsible for providing pastoral care. There is therefore an opportunity to improve teachers’ knowledge and confidence to effectively support students with or affected by HIV.

This study was sponsored by ViV Healthcare and carried out by Ipsos MORI.

O3
Malignancy in HIV-positive young people
S Herbert1, A Babbar2, A Judd1, A Judd1, E Jungmann4 and C Foster1
1Derby Hospitals NHS Foundation Trust, Derby, UK; 2TST ‘George’s Hospital, London, UK; 3MRC Clinical Trials Unit at University College London, London, UK; 4University of Birmingham, Birmingham, UK
Background: Malignancies (AIDS and non-AIDS definition) occur at higher rates in adults with HIV but data is limited in young people. As children with HIV survive into adulthood, issues of immunosuppression raises concerns regarding malignancy risk, and presentation may differ from adults. We identified malignancies in HIV infected young people throughout the HIV Young People’s Network (HYPNET) and the Collaborative HIV Paediatric Study (CHIPS). Malignancy in HIV infected young people can feature enabling future management and raise awareness in health professionals.

Methods: Adult and paediatric HYPNET members and the CHIPS database identified HIV positive young people aged 13–24 years with a malignancy diagnosed between 2000 and 2014. Anonymous data on demographics, malignancies, CDC, VL, antiretroviral therapy (ART), adherence outcomes (HIV and malignancy) and offer of sperm/egg storage were collected.

Results: 15/70 centres reported 31 cases. CHIPS identified a further 8 cases. Of these 39, 15(38%) had acquired HIV sexually, median age 24 [IQR 21.5, 24.0]yrs; 11 were Kapoor’s sarcoma (KS) and 4 lymphoma. Further data was not available from contributing centres. 22 acquired HIV perinatally (PaHIV), 7(37%) male, median age at malignancy diagnosis 17 [13.5, 18]yrs; 167(31%) were lymphoma (5 Hodgkin’s, 3 KS), 1 disseminated adenocarcinoma, 1 astrocytoma, 1 hepatocellular carcinoma (HBV infected). In 2 lymphoma cases route of transmission was unknown. For PaHIV malignancy, median CD4 count was 423[289.8, 592.5], nadir CD4 200 [132, 380]. 11/19 with available data had a detectable VL. Median number of ART regimens was 2 [2, 5], with 7/14 (50%) with data having at least 2 class resistance. 9/10 had pre ART diagnosis to the malignancy diagnosis. Median time from presentation to diagnosis was 8 weeks [4, 10]; 9/14 had a definite or possible delay in diagnosis. 2/20 patients who received chemotherapy had egg/sperm storage. Median follow-up post malignancy was 50 [18, 88.5] months. Malignancies outcomes: 9/14 achieved remission at 1 year; 3 had active disease. 2 died. 9/20 had >5 years current survival. 13/14 patients were undetectable on ART (6 no data) at last follow-up.

Conclusion: Lymphoma was the predominant malignancy in PaHIV, while KS predominated in those with sexually acquired HIV. VL suppression prior to malignancy diagnosis was poor, but malignancy and HIV outcomes appear good. Adherence support and prompt investigation of symptoms is paramount in this group.
P1
Efavirenz toxicity in paediatrics: a single centre cohort
E Wynberg1, S Walters2, T Popoola2 and F Foster2

1Imperial College, London, UK; 2Imperial College Healthcare NHS Trust, London, UK

Background: The adverse effects of efavirenz (EFV) in adults are well documented, however less data are available for children. EFV is the preferred NNRTI in WHO Guidelines from 3 years, with adult dosing of 600 mg from 10 years or 40kg. However optimal EFV dosing in adults is currently being questioned, with 400 mg providing suppressive antiretroviral therapy (ART) in recent studies. We therefore audited EFV use in a single-centre paediatric cohort.

Methods: Retrospective case note audit of children and adolescents commencing EFV-based ART aged 3 to 17 years, between 1998 and 2014. Patients who transferred care were excluded. Anonymous data collected in Excel included demographics, ART, hepatitis/TB co-infection, previous psychiatric or neurological diagnoses, viral load (VL), CD4 count and therapeutic drug monitoring (TDM) where available. Adverse events classified as early (<8 weeks EFV), mid (6–24 months) or late (>6 months).

Results: 51 children commenced EFV therapy between 1998 and 2014. 24/51 (47%) were female and 30/51 (59%) Black African origin. 5 had HIV co-infection and 1 active TB. Median age starting EFV was 9.1 (IQR 7.2–12.4) with a median duration of EFV exposure of 4.4 yrs (IQR 1.1–7.4). 41/51 (80%) achieved sustained VL suppression, 100% developed virological failure with NNRTI resistance. 16/51 (31%), half female, reported one or more side effect attributed to EFV: CNS (10), gynaecomastia (7: 5 male) hypercholesterolaemia (2), rash (1), lipodystrophy (1) and raised liver enzymes (1). CNS toxicity included one or more of; psychosis (1), extreme tiredness (4), reduced concentration (3), headaches (2) and mood change (2). Toxicity occurred, early in 3 (19%), mid in 4 (25%) and late in 9 (56%). EFV toxicity appears to increase with increasing weight. 36 (70%) patients were female and 30/51 (59%) Black African origin. 5 had HBV co-infection and 1 active hepatitis/TB co-infection, previous psychiatric or neurological diagnoses, viral load (VL), CD4 count and therapeutic drug monitoring (TDM) where available. Adverse events classified as early (<8 weeks EFV), mid (6–24 months) or late (>6 months).

Conclusion: More than a quarter of adolescents receiving EFV-based ART switched due to toxicity with only 1 documented toxic plasma level. Over half were CNS-related with potential effects on psychological well-being and educational attainment. Further paediatric studies are required to optimise EFV dosing maintaining efficacy whilst minimising toxicity.

P2
Clinical outcomes for severely immunosuppressed young adults with perinatally acquired HIV infection
M Islam, D Davies, T Wan, C Foster and S Fidler

Imperial College London, London, UK

Background: Median survival from historical cohorts of adults living with HIV presenting with CD4 <200 cells/mm³ in the pre-antiretroviral (preART) era was 11.6 months. Extrapolation of survival data from horizontally infected adult cohorts may not be appropriate for young people with perinatally acquired HIV (PaHIV). Anecdotal evidence suggests a different survival pattern amongst young adults with PaHIV transitioning care with CD4 <200 cells/mm³. We sought to explore this within a PaHIV transition cohort.

Methods: Retrospective case note review of young adults with PaHIV attending a single UK centre between January 2006 and December 2014. Eligible participants were over 16 years; recorded CD4 <200 cells/mm³ at transition or in adult care. Outcomes measured included survival, new AIDS defining illnesses and hospitalisations. The length of time spent with a CD4 <200 cells/mm³ was recorded as a comparison to the preART era survival in adults.

Results: Of 38 cases; 20 (53%) were female; 33 (87%) Black African origin and a current median age of 22 years (IQR 20–23). 3/8 (38%) patients died, at a median of 36 months (range 28–98) after first CD4 <200 cells/mm³. Causes of death; end stage HIV wasting, gram negative sepsis with end stage HIV and atypical mycobacteria. Of the remaining 35 patients, 20 ever achieved virological suppression on ART and a CD4 count >200 cells/mm³ at latest follow up. 15 have failed to suppress despite enhanced adherence support, with current CD4 count <200 cells/mm³. All have potentially suppressive ART options, 3/15 have triple class HIV-1 associated resistance mutations. EFV-based ART aged 3 to 17 years, between 1998 and 2014. Patients who transferred care were excluded. Anonymous data collected in Excel included demographics, ART, hepatitis/TB co-infection, previous psychiatric or neurological diagnoses, viral load (VL), CD4 count and therapeutic drug monitoring (TDM) where available. Adverse events classified as early (<8 weeks EFV), mid (6–24 months) or late (>6 months).

Conclusion: From this small cohort of young adults with perinatally acquired HIV it appears the median survival with significant immunosuppression, is enhanced compared to historical adult cohorts; 36 versus 11.6 months respectively. However survival comes with a significant cost to both patients and the NHS, with new opportunistic infections and recurrent hospital admissions. This observation warrants further investigation within collaborative cohort studies and comparative adult populations in the era of ART.

P3
Fertility amongst perinatally infected women attending a young adult service
S Ayres, S McDonald, C Foster and S Fidler

Imperial College NHS Trust, London, UK

Background: The impact of perinatally acquired HIV infection (PaHIV) and exposure to ART through childhood and puberty on female fertility is unknown. General population, UK female infertility rates <30 years old are estimated at 2–5%. We audited fertility outcomes for young women with PaHIV attending a single UK centre.

Methods: Case note review of all PaHIV infected young women in care between 2006–2014. Fertility problems were defined as; confirmed infertility or failure to conceive (>2 year). Data collection included nadir CD4, smoking, years on ART, BMI and STIs.

Results: Of 59 women, current mean age 22 years (range 18–30), 65/59 female, 19/59 ever smoked, mean BMI 22.6. 10 pregnancies occurred in 6 women resulting in 8 live births, 1 termination and 1 ectopic pregnancy. 8 of 59 women (13.6 %) have a diagnosis of infertility, mean BMI 21.6, mean nadir CD4 count 395. 7/8 ever received ART, mean duration 8.4 years at latest follow up, 6 with current VL<20cm/ml and 7/8 CD4>350. 3/8 had primary ovarian failure, one with streak ovaries. 5/8 had secondary infertility, tubal obstruction and multiple ovarian cysts (1), poyovulcanic ovaries (2) and continuing investigation (2). Of these 5, 3/6, four of a triple ART, MAI (4), CMV (1).

Conclusion: Whilst this is a very small cohort, there appears to be a higher than expected rate of infertility amongst PaHIV infected young women that warrants further investigation within collaborative cohort studies.

P4
What do young adults with perinatally acquired HIV think about onward HIV disclosure interventions? A survey of attendees at a London transition service
M Evangeli1, F Foster2, G Frize2 and S Fidler2

1Royal Holloway, University of London, Surrey, UK; 2Imperial College Healthcare NHS Trust, London, UK

Background: An important challenge for young people with perinatally acquired HIV (PaHIV) is onward disclosure (disclosing their HIV status to others). There is little onward disclosure intervention. Paper based questionnaire assessing; HIV disclosure difficulty, interest and desirable features of a future HIV disclosure intervention (e.g., format, sex, peer support), and barriers to HIV disclosure.

Methods: Anonymised survey of young people with PaHIV attending a specialist transition service in London to inform the development of a behavioural onward disclosure intervention. Paper based questionnaire assessing; HIV disclosure difficulty, interest and desirable features of a future HIV disclosure intervention (e.g., format, sex, peer support), and barriers to HIV disclosure.

Results: 57 young people, median age 21 (range 17–28) years, 26 female, completed the survey. Thirty six of 57 (63%) either agreed or strongly agreed that onward disclosure was difficult. Twenty one of 57 (37%) were not interested in taking part in a future intervention, 25 (44%) were unsure, and 11 (19%) expressed interest. There was no correlation (r=0.04) between perceived HIV disclosure difficulty and interest in a future intervention. Group (23/57) and mixed individual and group formats (21/57) were preferred. Most were preferred on mixed sex groups (52/57) and peer worker disclosure intervention. Paper based questionnaire assessing; HIV disclosure difficulty, interest and desirable features of a future HIV disclosure intervention (e.g., format, sex, peer support), and barriers to HIV disclosure.

Conclusion: Perinatally infected young people experience significant difficulties in disclosing their HIV status to others but are ambivalent about receiving structured disclosure interventions. Efforts to develop HIV disclosure interventions should engage with young people to address (a) HIV disclosure barriers and (b) barriers to taking part in disclosure interventions. Designing interventions with features that are preferred by young people (e.g., group or mixed format, mixed sexes and with peer worker involvement) is likely to enhance the acceptability and uptake of future HIV disclosure interventions.
P5

Should pregnant women with unknown HIV status be offered rapid HIV testing in labour?

J Downie1, H Mac tier2 and RM Bland1,3

1Royal Hospital for Sick Children, Glasgow, UK
2Princess Royal Maternity Hospital, Neonatal Unit, Glasgow, UK
3Africa Centre for Health and Population Studies, South Africa

Background: Mother-to-child transmission (MTCT) is the main cause of HIV infection in children. From The BHIVA National Study of HIV in Pregnancy in Childhood has demonstrated that with the implementation of guidelines including antenatal testing, early antenatal ART and birth planning, immediate neonatal testing and ART and appropriate infant feeding advice has reduced MTCT rates in the UK are now 0.5%.

Despite international guidelines and recommendations, infants are still delivered to women with an unknown HIV status, or who were HIV-negative early in pregnancy but have not been re-tested near delivery and may have sero-converted. Studies from Africa have demonstrated sero-conversion rates during pregnancy as high as 20%. Rapid HIV tests produce quick (10-20 minutes) and accurate results. This prompt diagnosis is important, particularly in settings where conventional HIV tests can take up to two weeks to be reported and has important implications for testing women late in pregnancy or during labour.

Methods: PubMed and the Cochrane Library were searched in May 2013. Studies from all countries were included. All citations were screened by the author and a total of 23 were found. Citations found relevant in the first screen were evaluated by review of full text report. A total of five studies were relevant.

Results: The diagnostic accuracy of rapid tests is excellent, with specificity and sensitivity higher than 99%. Within maternity settings there have been reports of decreased rapid HIV test performance (87.5-94.5%). HIV detection may be improved if a second rapid test is used.

The use of rapid testing is particularly relevant in low and middle income countries, where advance testing infrastructures are lacking. However, even in these resource-poor settings there is clear evidence that rapid testing is cost-effective and feasible for high-risk and hard to reach groups.

Evidence supports women’s acceptability of rapid HIV testing. UK studies have shown that up to 85% of women have found rapid HIV testing acceptable. For women with an unknown status, clinical trials have shown that knowledge of HIV status, and subsequent intervention can reduce MTCT of HIV by as much as 50%.

Conclusions: Globally, women continue to present in labour with an unknown HIV status. Early diagnosis of HIV in a pregnant woman significantly reduces the rates of MTCT. ART, or sero-conversion in pregnancy may lead to undiagnosed HIV in the mother and transmission to the infant. Rapid HIV tests have high sensitivity and specificity and are feasible to use in labour or late in pregnancy. Rapid HIV testing is acceptable and cost-effective, Rapid HIV testing should be available in all maternity units.

P6

Changing incidence of perinatally acquired infection in an era of changing antiretroviral therapy to HIV-infected pregnant women in Eastern Cape, South Africa

JS Lambert, Kuan K1, Carty C2, Goldswain C3, Harper K3, Sidlolly L3, Weyer L4, Lambert J1,2, Adler H1, Boon G3

1School of Medicine and Medical Sciences, University College Dublin, Dublin, Ireland, 2Department of Infectious Diseases, Mater Misericordiae University Hospital, Dublin, Ireland, 3Rutanda Hospital, Dublin, Ireland, 4Department of Pediatrics, Free Hospital, Eastern Cape, South Africa

Background: By the end of 2003, WHO estimates indicated between 204,000 and 297,000 women living with HIV/AIDS gave birth annually, resulting in an estimated 61,000–89,000 cases of children with HIV exposure in South Africa. In 2002, the South African government commenced a Prevention of Mother To Child Transmission (PMTCT) programme which was subsequently amended in 2004, 2008 and 2010 with upsampling of antiretroviral medication from Nevirapine single dose to HAART.

The objective of this study was to evaluate changing trends in HIV perinatal infections in East London from 2004–2013. The aim of this study is to determine whether upsizing of antiretroviral treatment successfully resulted in the PMTCT of HIV.

Methods: A retrospective cohort study was conducted involving the Cecilia Makiwane Hospital and the FCREH Hospital in East London, South Africa. Data on the incidence of perinatal HIV cases ages 0–2 years were obtained from an electronic database. Data of a total of 747 patients (378 male (50.6%) and 369 females (49.4%)) were charted and plotted by incidence and year.

Results: Initially a rising trend was noted in 2004 with 26 incidences, peaking in year 2007 with 106. Following a decrease to 90 in 2008, the trend rebounded in 2009 to 103 before decreasing again in 2013 (58 cases).

Conclusion: While reductions in new cases overall were seen, perinatally infected children continue to be a significant problem. An increase in new maternal HIV infections and higher birth rate likely explains these trends, and nonetheless modest decreases represent a success of more robust antiretroviral treatments that have been implemented in HIV infected pregnant women in our cohort. Further analysis of this cohort and changing demographics of women in our study are under way.

P7

Audit of hepatitis B testing in parents and children of those with co-infection in the family HIV clinic

SY Chan

The Jefferins Wing, St Mary’s Hospital, Imperial College Healthcare NHS Trust, UK

Background: The BHIVA adult hepatitis guidelines recommend that patients are screened for hepatitis B (HBV) at diagnosis, those who are not immune should be vaccinated. Those who are vaccinated should have annual or biannual hepatitis B antibody screening and those who are immune continue to have annual screening for HBV. The objective of this audit is to evaluate current screening rates for antiretroviral treatment of those with co-infection, as well as recommendations for hepatocellular carcinoma screening. Department of health guidelines recommend that children of those with HBV co-infection should be screened and vaccinated.

Methods: Single centre retrospective case note audit of all parents attending a family HIV clinic over one year and audit of children of co-infected parents.

Results: Of a cohort of 67 parents attending the family clinic (60 female/7 male), all had some form of testing for hepatitis B. 14/67 (21%) were naturally immune to HBV, 11/67 (16%) were hepatitis B core antibody negative with surface antibody <10. 6/67 had some form of testing for hepatitis B. 14/67 (21%) were naturally immune to HBV, 11/67 (16%) were hepatitis B core antibody negative with surface antibody <10.

Conclusion: There are very good levels of hepatitis B testing and vaccination in parents attending the family clinic. All HIV positive children of those with co-infection should be screened and vaccinated although it was not possible to determine the vaccination status of their other HIV negative children. Monitoring of parents who are not immune to HBV could be improved as well as the monitoring of some patients with coinfection.

P8

A tale of Cushing’s, ritonavir and football trials

The Family Clinic and A Lenko1, A Tappin2, M Hussey1

1ICH, UK; 2Portsmouth Hospital, UK; 3Poole Hospital, UK

Background: Vernal keratoconjunctivitis is an inflammatory condition leading to corneal epithelial breakdown, sight threatening complications and is typically treated with topical steroids. Ritonavir (rtv) is a potent cytochrome p450 CYP3A4 inhibitor with most corticosteroids metabolised via this pathway. Iatrogenic Cushing’s syndrome following co-administration of corticosteroids with rtv is widely described, but with conflicting evidence as to whether topical steroids are systemically absorbed. While ritonavir and corticosteroids both act via the glucocorticoid receptor no direct interaction has been reported.

Methods: We report a case Cushing’s syndrome in an adolescent on ritonavir boosted ART receiving concomitant hourly dexamethasone eye drops. The case strongly suggests that ritonavir, through CYP3A4 inhibition, was responsible for significant accumulation of systemic levels of dexamethasone and highlights the need for vigilance in prescribing steroids in this setting. His archived resistance prevents the use of rtv-sparing ART.
Routine opt-out HIV testing in the emergency department: feasible and acceptable

J Ellis1, M Hempling1, A Zelićka-Hardy2, G Fida3 and W Majewska4
1St George’s Healthcare NHS Trust, London, UK; 2NHS Wandsworth Public Health Department, London, UK; 3Curtin University, St George’s Healthcare NHS Trust, London, UK

Background: Routine HIV testing in non-specialist settings has the potential to significantly reduce late diagnoses. We report a 3 month pilot exploring feasibility and acceptability of HIV testing in an Emergency Department (ED) at a busy London teaching hospital.

Methods: Between March–May 2012, all patients aged between 18–65 years attending the ED, were offered opt-out HIV testing by ED clinical staff. Patients were given information leaflets about HIV, including how to obtain results. Multivariable models were run to determine predictors for offering (feasibility) and accepting (acceptability) an HIV test. Information regarding reasons for not offering an HIV test and reason for patients declining was also recorded.

Results: During the study period 24,171 patients aged 18–65 were seen in the ED. Data was collected from a convenience sample of these patients who underwent serological investigation (5,657). The mean age was 38 years; 57% female and 27% white. 48% were offered HIV testing, of which 65% accepted. Patients 47 years were more likely to be offered HIV testing, particularly those aged 28–35 (aOR:1.65, 95%CI:1.40–1.94). Male patients were more likely to accept (aOR:1.34, 95%CI:1.14–1.58). ‘Recent HIV test’ (38%) and ‘I do not want to know (my status)’ (31%) were the commonest reasons for declining a test. One new HIV diagnosis was made.

Conclusion: Our experience demonstrates that routine HIV testing in the ED is feasible and acceptable. However to make HIV testing effective and part of routine clinical care, considerable clinical leadership, staff training and additional resources are required.

Lamivudine monotherapy as a safe option for HIV infected children with challenging circumstances? New evidence from a large South African cohort

V Linder1, C Goldswain1, JS Lamberti2, V Jackson1, G Boon3, K Harper1, C Cary2
1Eastern Cape Department of Health, Paediatrics, Eastern Cape, South Africa; 2Mater Misericordiae University Hospital, Infectious Diseases, Dublin, Ireland; 3The Rotunda Hospital, Clinical Audits and Surveillance, Dublin, Ireland; 4The Relevance Network, Johannesburg, South Africa

Background: HIV-infected children in resource-poor settings comprise a unique population who require antiretroviral therapy (ART) in careful consideration of social and structural barriers to compliance. Given these aggregate challenges and emerging research into treatment options, we further investigated the efficacy of lamivudine monotherapy (LM) as a surrogate treatment in anticipation of 2nd and 3rd line therapies.

Methods: A retrospective review of all eligible LM events (6 months) from a cohort of two linked health facilities in the Eastern Cape Province, South Africa was undertaken. Events were disaggregated according to absolute CD4 count at initiation (Group 1: <200 cells/µL, n=64; Group 2: >200 cells/µL, n=10). Study endpoints were defined as a decline of absolute CD4 ≥200 cells/µL (Group 1), WHO stage 3 or 4 event (Groups 1 & 2), or initiation of 2nd or 3rd line (Groups 1 & 2). Results: 74 eligible LM events were identified among 71 HIV positive children (58% male; median age at LM 9.7 years and median LM duration 11.5 months). CD4 decreases and measured WHO stage 3 or 4 events did not yield overall significance between groups (Table 1). No deaths were recorded.

Results: Evidence suggests that PHIV children do not perform as well as controls on neurological problems.

Using point-of-care technology to enhance clinical quality and patient outcomes in resource-poor paediatric ARV settings

Carty C1, Lambert J57, Harper K1, Goldswain C1, Boon G3
1The Relevance Network, Johannesburg, South Africa; 2Mater Misericordiae University Hospital, Infectious Diseases, Dublin, Ireland; 3Eastern Cape Department of Health, Paediatrics, Eastern Cape, South Africa

Background: In late 2011 a multidisciplinary team of clinicians, medical transcriptionists and health sector stakeholders undertook the process of digitising paper-based hospital records in two large paediatric HIV referral clinics in resource-limited settings South Africa. The project culminated in the largest standalone repository of validated data specific to paediatric clients (0-19 years) worldwide.

Methods: The concept evolved from the audit phase to a now fully operational system of data collection using point-of-care technology for patient management. Using the software design life cycle model, clinicians informed the processes that would ultimately allow for the capture of key clinical variables in real time. Data extrapolations using targeted key word queries of the system enabled researchers to readily access disaggregate variables across clinical and social indicators.

Results: Over 2600 records have been digitized to date, of which 2395 have been migrated to the active system. Over 58000 patient visits are available dating back to 2004. Cohort data revealed ≥30% more paediatric HIV patients (0-18 years) enrolled at site hospitals than initially estimated over, highlighting the need to properly quantify child cohorts. It also uncovered a sobering trend in loss to follow-up among adolescents. In contrast, findings confirmed that PMTCT efforts have resulted in demonstrable declines in new infants joining the cohort prospectively. Data from the program has assisted adhererence with ‘tracking’ of patients who are lost to follow-up by mapping their last patient visit data to referral clinic sites and next ARV refill date, thus allowing for triage of more urgent cases. The value of point-of-care technology has resulted in clinician uptake and has allowed for capacity building for M.Med students undertaking government-mandated research.

Conclusion: The value set and mission of the project has resulted in key, quality partnerships with departmental leaders and staff, as well as researchers and the support service sector. The ideals of enhancing child specific services to impact overall quality of care for children to be met at the forefront of each step throughout the implementation of point-of-care technologies.

Table 1: Characteristics for LM initiated patients

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>LM initiated patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>All LM Events</td>
<td>74</td>
</tr>
<tr>
<td>Group 1 (CD4 &lt;200 cells/µL)</td>
<td>64</td>
</tr>
<tr>
<td>Group 2 (CD4 &gt;200 cells/µL)</td>
<td>10</td>
</tr>
<tr>
<td>Patients lost to follow-up</td>
<td>5</td>
</tr>
<tr>
<td>Patients with event (CD4 ≤200)</td>
<td>4</td>
</tr>
<tr>
<td>Patients with event (Stage 3 or 4)</td>
<td>4</td>
</tr>
</tbody>
</table>

Conclusions: LM offers a promising alternative approach to ART management in young patients with an absolute CD4 ≥200 cells/µL pending availability and/or willingness to adhere to 2nd or 3rd line therapies. In more immune compromised children, LM may be considered as a last option if either the child or caretaker has concerns about 2nd or 3rd line management, or has defaulted repeatedly.

Review of the neurocognitive consequences of HIV infection in children & adolescents

T Campbell
Head of Psychology & Health, East London Foundation Trust, UK

Background: Globally, an estimated 3.4 million children are living with HIV, yet little is known about the effects of HIV and antiretroviral treatment (ART) on the developing brain, and the neurodevelopmental and behavioural outcomes of perinatally HIV-infected (PHIV) adolescents.

Method: I will review the general literature on neurodevelopmental outcomes in PHIV children and adolescents but will specifically focus on children in the UK. I will summarise the current evidence on behaviour, general cognition, specific domains, hearing and language, school performance and physical disabilities due to neurological problems.

Results: Evidence suggests that PHIV children do not perform as well on general cognitive tests, processing speed and visuo-spatial tasks, and are at much higher risk for psychiatric and mental health problems. Executive functioning difficulties are common amongst adolescents with potentially serious implications for effective coping for the future especially with regard to ART adherence. Children with AIDS-defining diagnoses are particularly at risk for poorer outcomes. A striking finding is the lack of published data specific to the adolescent age group (10–25 years), particularly from resource constrained countries, which have the highest HIV prevalence. In addition, extreme heterogeneity in terms of timing and source of infection, and antiretroviral experience limits our ability to summarize findings of studies and generalize results to other settings.

Conclusion: The neuro-cognitive implications of HIV infection may be subtle but may have a negative additive effect over the course of the development of the HIV–child. I will conclude this presentation with some practical advice for clinicians with regard to identification and mitigation of the neurocognitive consequences.
Notes
Forthcoming Events

17th Annual Conference of the National HIV Nurses Association (NHIVNA)
18–19 June 2015
Royal Armouries, Leeds

Joint BHIVA/BASHH One-day Revision Course for the Diploma in HIV Medicine candidates
Thursday 9 July 2015
London

19th Annual Resistance and Antiviral Therapy Meeting
Wednesday 16 September 2015
London

BHIVA General Medicine for HIV Physicians Course
Tuesday 13 October 2015
NCVO, London

NHIVNA Study Day
‘… and how does that make you feel?’
Working together to provide holistic HIV care
Wednesday 21 October 2015
NCVO, London

Prevention of Infant HIV Infection:
aiming for zero transmission
marking World AIDS Day
Friday 27 November 2015
Royal College of Obstetricians and Gynaecologists London

European HIV Hepatitis Co-infection (EHHC) Conference
10–11 December 2015
QEI Conference Centre, London

22nd Annual Conference of the British HIV Association (BHIVA)
19–22 April 2016
Manchester Central

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