

About the clinical audit committee

The BHIVA clinical audit committee began work in 2001. Its aims are:

- To promote practice in clinical audit in HIV, AIDS and related fields.
- To develop and implement a rolling programme of national clinical audit in HIV and AIDS.
- To facilitate sharing of relevant information and expertise via the BHIVA Clinical Audit Faculty.

More information about the committee's work is available at: <http://www.bhiva-clinical-audit.org.uk>

Members of the clinical audit committee

Chair:

Dr Margaret Johnson, *BHIVA Chair*

Deputy Chair:

Dr Gary Brook, *North Thames Regional Audit Group*

Audit Co-ordinator:

Dr Hilary Curtis

Dr Ray Brettle, *Edinburgh*

Mr Paul Bunting, *South Thames Regional Audit Group*

Dr David Daniels, *British Association for Sexual Health and HIV*

Dr Andrew Freedman, *Cardiff*

Professor Brian Gazzard, *London*

Dr Dushyant Mital, *London*

Dr Eric Monteiro, *Yorkshire Regional Audit Group*

Dr Fiona Mulcahy, *Dublin*

Dr Colm O'Mahony, *Chester*

Dr Anton Pozniak, *London*

Dr Caroline Sabin, *London*

Dr Ann Sullivan, *London*

Dr Alan Tang, *Reading*

Dr Jan Welch, *London*

Dr Ed Wilkins, *Manchester*

Co-opted for maternity audit:

Dr Annemiek De Ruyter, *London*

Dr Candice McDonald, *Brighton*

Dr Gareth Tudor-Williams, *London*

Co-opted for hepatitis co-infection audit:

Dr Shamela De Silva, *London*

Pregnancy and maternity

The committee's main project for 2003–4 was a national audit of the management of pregnancy and maternity in women with HIV. A total of 101 centres took part, of which 81 submitted individual patient data relating to 501 women whose pregnancies ended in live or still birth during the year to 30 September 2003. A further five pregnancies were excluded from analysis as they did not meet inclusion criteria (one maternal and fetal death at 24 weeks due to multi-organ failure, one miscarriage at 11 weeks, two terminations of pregnancy, one not delivered during study period). The participating centres reported a total HIV case-load of 22,692, showing that the national audit programme covers the majority of people receiving HIV care in the UK.

Among the 501 analysed patients, 42% were diagnosed with HIV before they found they were pregnant and 50% during the first two trimesters (47% on routine antenatal screening). Of the 8% still undiagnosed at the start of the third trimester, only three patients were diagnosed in the last seven days of pregnancy, and two post-natally.

Key findings from this audit included:

- **Multidisciplinary care:**

The overwhelming majority of participants with experience of managing pregnancy and delivery among women with HIV reported working closely with a multidisciplinary team. Most (80) were satisfied with the availability of specialist expertise, though of the nine who expressed dissatisfaction six specifically mentioned lack of expertise in relation to paediatric care. Similarly most participants were satisfied with communication arrangements, although eight said problems had occurred through relevant staff not being told of a woman's status, and 11 through staff using such information inappropriately.

- **Use of drugs to prevent vertical transmission of HIV:**

Guidelines recommend therapy, with the choice of highly active (i.e. triple) antiretroviral therapy (ART) or zidovudine

monotherapy depending on the initial CD4 count and viral load.

The most popular ART was zidovudine/lamivudine/nevirapine, taken by 50% of patients, followed by zidovudine monotherapy (14%) and zidovudine/lamivudine/nelfinavir (10%) [Figure 1]. This was consistent with respondents' stated preferences, with under half saying they would use zidovudine monotherapy even in the hypothetical case of a woman with a high CD4 count and low viral load. However, the data may reflect the fact that the audit was conducted before publication of a warning relating to the use of nevirapine in women with high CD4 counts.

A total of 15 respondents said they would stop all drugs together post-pregnancy for a nevirapine-based combination in a woman not needing treatment for her own health. Nevirapine's long half-life and low resistance barrier means this practice may potentially lead to drug resistance. When asked how they would manage a subsequent pregnancy in a woman with HIV, 20 respondents said they would use standard therapy or the same therapy as in the previous pregnancy, and 37 said that they would base therapy on the results of a resistance test. Eight of the latter group also mentioned they would take note of the woman's history of adherence and/or viraemia on therapy.

- **Mode of delivery:**

Guidelines recommend pre-labour Caesarean section (CS) at 38 weeks, but there is evidence to support an option of vaginal delivery in women with undetectable viral load on highly active (triple) ART.

There was no over-riding consensus on how to deliver women with undetectable viral load on highly active ART. Fifty-five respondents said they would always advise CS, while nine would favour trial of labour in women with previous uncomplicated deliveries and seven for first deliveries as well. Sixteen were neutral and the remainder

had no policy or did not answer. Among patients, 85% of women were planned for CS and 67% underwent a CS before the onset of labour. There were 44 diagnosed patients for whom CS was not considered clinically indicated, including three on zidovudine monotherapy and one self-medicating on dual therapy. Of those on highly active ART, three had detectable viral load and two had no viral load measurement in the last four weeks of pregnancy (delivered at term).

Most of the 67 women who went into labour despite being planned for CS did so prematurely, but 15 did so at 38 completed weeks of gestation and seven at 39 or more weeks.

• **Support for formula feeding:**

Guidelines recommend avoidance of breast feeding, which carries a substantial risk of HIV transmission.

Centres varied hugely in the support they provide for formula feeding to avoid the risk of HIV transmission via breast milk. Services on offer included training/workshops, support from a variety of specialist professionals,

funding or provision of formula/equipment, factsheets/leaflets and cabergoline, but there seemed to be no consistent approach. There may be a need for guidance on best practice in this area. Participants offered a wide range of responses when asked what they would do if a woman with HIV declined advice not to breast-feed. This was a hypothetical question addressing a situation which is both rare and difficult to deal with, but it is of concern that seven participants viewed this as a matter of patient choice.

• **Screening for fetal abnormalities:**

Guidelines recommend specialist counselling and the best use of non-invasive tests (nuchal fold and serum screening) to reduce the need for invasive testing.

The risks of HIV transmission through amniocentesis are believed to be low, whereas there may be a greater risk through chorionic villus sampling (CVS). Four women were reported to have undergone amniocentesis, including three diagnosed with HIV on routine antenatal screening during the first or second trimester who were not reported to have had serum or nuchal fold screening. The fourth

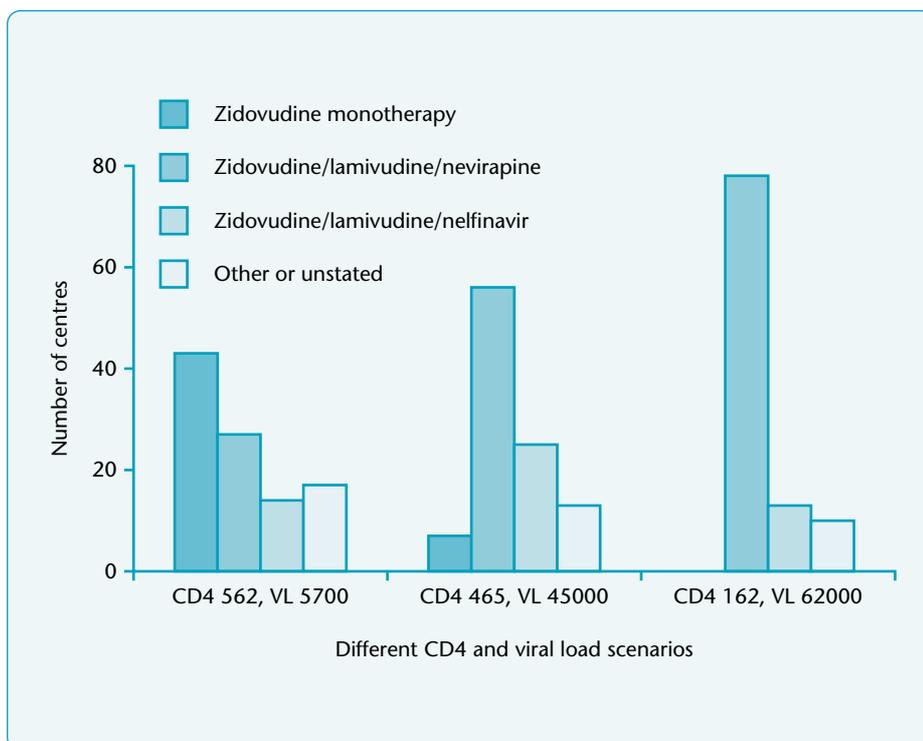
presumably had her amniocentesis before HIV was diagnosed in the third trimester. One woman diagnosed with HIV on routine antenatal screening had CVS, but had also had serum and nuchal fold screening.

• **Partner notification:**

In 67% of cases the woman had a partner who knew of her HIV status by the time of delivery. Partners of 9% of the women did not know, and 7% of women had no partner. For 18% of women, the partner notification status was not known or not reported.

It is also of potential concern that there were eight still births among the 501 pregnancies (including two at 22 weeks gestation), and one very early neonatal death apparently following an in-utero brain haemorrhage. There was no obvious pattern to these cases and the adverse outcomes may not have been directly due to HIV or anti-retroviral therapy. There is also a possibility of inclusion bias. The committee intends to follow up this finding in liaison with relevant specialists. In addition, although the study was not designed to detect post-natal outcomes, two babies (one a twin) were reported to have died with neonatal TB and two babies were known to have HIV infection. Neither of these represented a failure of therapy; one mother was diagnosed with HIV post-natally and the other was highly non-adherent.

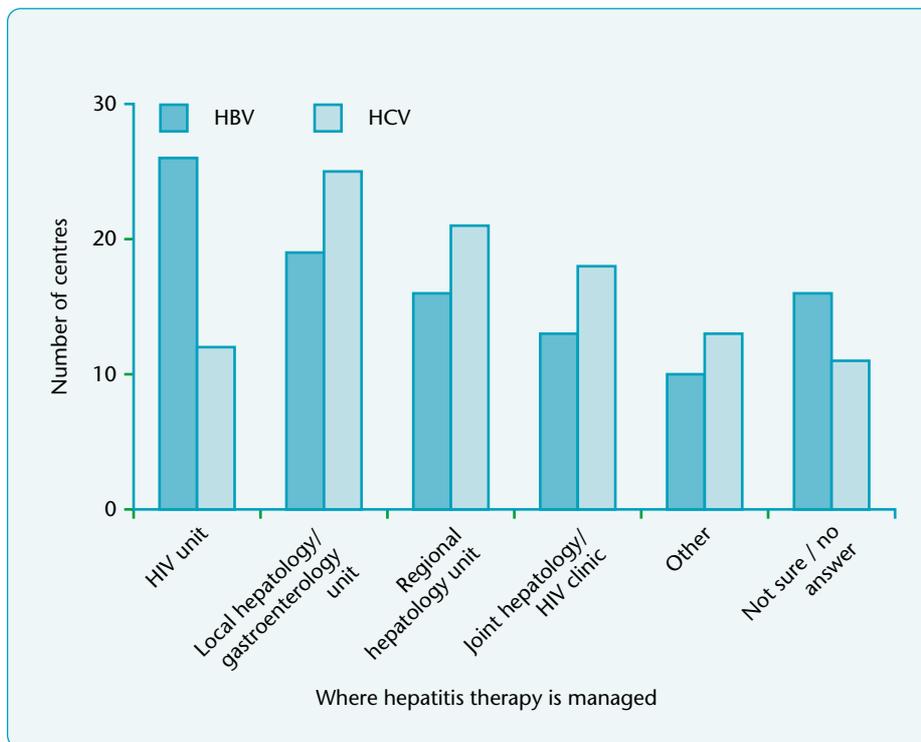
Figure 1: Preferred therapy in pregnancy at different CD4 and viral load scenarios.



Future BHIVA events

11th Annual Conference
of the
British HIV Association (BHIVA)
with the
British Association for Sexual Health and HIV (BASHH)
20–23 April 2005
Burlington Hotel, Dublin

BHIVA Autumn Conference
October 2005
London



HIV and hepatitis B or C co-infection

The committee also conducted a survey to assess the impact and usefulness of BHIVA guidelines for management of patients co-infected with HIV and hepatitis B or C. Of 100 responding clinicians, including six from centres dealing exclusively with haemophilia patients, 87 had read both sets of guidelines and one had read only those relating to hepatitis C (Figure 2). The hepatitis B and C guidelines were assessed as 'very useful' by 56 and 49 respondents, respectively. Each set of

guidelines was assessed as 'quite useful' by 29 respondents.

Full results of this survey will be prepared for publication, but some possible areas of concern include:

- Six centres not routinely screening all newly diagnosed HIV patients for hepatitis C.
- Restrictions on access to HBV DNA testing and to HCV therapy, and impact of these on waiting times.
- Choice of drugs in patients with HBV/HIV.

Figure 2: Arrangements for managing hepatitis B or C therapy in patients with HIV infection.

Influencing policy development

A large part of the committee's work has been concerned with assessing how clinicians view BHIVA's clinical guidelines and to what extent these are followed in practice. This information feeds into the process of updating and revising each set of guidelines.

In addition, the committee has now established a regular mechanism for presenting its findings to the UK Chief Medical Officers' Expert Advisory Group on AIDS. This meant, for example, that the group was able to consider BHIVA's audit results while updating its own guidance on infant feeding for mothers with HIV infection.

BHIVA audit projects

BHIVA audit projects are conducted according to a confidentiality protocol by which no one outside the BHIVA Secretariat can link the results to individual participating centres. However, the committee is happy to share data with local and regional audit groups, except where individual centres object.

No patient-identifying data are collected during the audit process – each patient is given an audit code number and only the clinical centre treating the person can match this to his or her identity.

Science reports

In addition to reporting its work at BHIVA conferences and through feedback to participating centres, the committee aims to publish all major findings in appropriate peer-reviewed journals. Work to date includes:

Curtis H, Sabin CA and Johnson MA. Findings from the first national clinical audit of treatment for people with HIV. *HIV Medicine*, 2003, **4**, 11–17.

Brook G, Curtis H and Johnson MA. Findings from the British HIV Association's national clinical audit of first line antiretroviral therapy and survey of treatment practice and maternity care, *HIV Medicine*, 2002, forthcoming.

Sullivan AK, Curtis H, Sabin CA and Johnson MA. National review of newly diagnosed HIV infections. Submitted for publication.

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Finance and distribution

As in previous years, all BHIVA's major sponsors supported the cost of the audit programme by contributing £50k for 2003–4. The total cost of the audit was approximately £39k.

There were two audits conducted during the year: Pregnancy and Maternity, and HIV and Hepatitis B or C co-infection. This report together with a display poster is being sent to all audit participating centres and to all BHIVA members.

BHIVA continues to provide a fully interactive clinical audit faculty via the website.

Looking forward to future plans

During 2004-5 the committee will audit the care of patients changing antiretroviral therapy for the first time and will survey management arrangements for HIV and TB co-infection. The committee is also liaising with the recently formed London HIV consortium audit and outcomes sub-group with a view to streamlining processes through collection of reproducible and consistent data.

Longer-term plans include an audit of mortality in people known to have HIV infection. The audit committee also hopes to liaise with BHIVA's Social and Behavioural Sciences Committee to investigate the provision of psychosocial and mental health care for people with HIV.

Contact details

BHIVA Secretariat:

Mediscript Ltd
1 Mountview Court
310 Friern Barnet Lane
London N20 0LD
Tel: 020 8369 5380
Fax: 020 8446 9194
Email address: bhiva@bhiva.org
Website: <http://www.bhiva.org>

Audit Co-ordinator:

Dr Hilary Curtis
39 Esmond Road
London NW6 7HF
Tel: 020 7624 2148
Fax: 0870 0567 212
Email: hilary@regordane.net