The main aim of this year’s audit programme was to assess how services fit with Standards for HIV Clinical Care, published in March 2007 by BHIVA in partnership with the Royal College of Physicians, the British Association for Sexual Health and HIV and the British Infection Society. This report recommends development of managed clinical networks comprising:

- HIV units providing outpatient care for the majority of patients with uncomplicated infection
- HIV centres – single-site or virtual/cluster – in each network providing more specialised services including inpatient care, complex outpatient care, referral and advice services.

Furthermore, networks should develop referral protocols and patient pathways, in which patients needing inpatient care for opportunistic infections, HIV-related tumours or other serious disease should ordinarily be admitted to the HIV centre or a tertiary service in liaison with the HIV centre. Ongoing care for patients with conditions such as lymphoma, Kaposi’s sarcoma, hepatitis B or C co-infection or significant neurological or renal disease should also be provided via the HIV centre.

In response to a survey about their care arrangements, 84 (79%) of 106 clinical sites said they were in an HIV care network, but on closer questioning it was apparent that not all networks had reached the stage of development envisaged in the Standards:

- Of 39 sites which classified themselves as HIV centres, only 15 broadly met the Standards criteria. Information was incomplete and others may have done so, but six clearly did not.
- Many sites which classified themselves as outpatient HIV units undertook planned inpatient work and/or other complex aspects of care. Some of these appeared well supported by network arrangements, but at least 13 did not, potentially raising issues of governance, risk, training and cost-effectiveness.
- Respondents reported many clinically significant delays or failures, especially relating to HIV diagnosis but also to transfer of complicated patients to HIV centres. Problems associated with tertiary referral/transfer and step-down were less common, but this may reflect a low level of such referrals.

In conclusion, this shows a need for a systematic approach to developing structures and pathways for coordinated care. However, the survey data was collected in late 2007, only a few months after publication of the Standards, and these arrangements may now be evolving.

**Networks for care**

### Action points

**For clinicians:**
- HIV clinicians should take the lead in developing networks in line with standards and appropriate to local circumstances.
- Networks should provide a forum to influence commissioning of HIV services and set priorities for development and investment.

**For commissioners:**
- Commissioners should expect the services they commission to describe their network arrangements and patient pathways.
- Commissioners should collaborate in planning HIV services across geographical boundaries and multiple providers/networks to make best use of resources and expertise.
The networks survey was accompanied by a ‘snapshot’ audit of current inpatients and day patients, aimed at describing patterns of service use and identifying any issues, eg, with transferring or discharging patients. Participating departments chose one day during the week of 5–11 November 2007 to review all adult day and inpatients known to have HIV infection, yielding data on 255 patients from 64 sites. Key findings were that:

- Most patients were in dedicated HIV or infectious diseases beds in larger specialist centres, but there were 37 sites with only one or two patients each. In addition, many sites which admit HIV inpatients occasionally did not take part because they had none during the audit week. This pattern of a large number of sites caring for small numbers of inpatients reinforces the importance of strengthening networks.

- There was some evidence of care pathways between sites, although the networks survey suggested a need to develop these further: 10 (4%) patients had been admitted from a GUM or outpatient clinic at a different hospital; 31 (12%) had been transferred in as inpatients and five (2%) were in the process of being transferred out. Respondents reported that a further four patients could have benefitted from transfer out but this was prevented or delayed.

- Not all patients had a definite diagnosis at the time of review, but 112 (44%) had actual or suspected AIDS-defining diseases. Others had non-AIDS-defining but probably HIV-related conditions such as pneumonia or sepsis. However, respondents may have been less likely to know about patients who were admitted for reasons unrelated to HIV.

- Only a quarter of patients were recently diagnosed with HIV (65, 25% during or within 3 months before hospital admission). Nearly half (120, 47%) were on anti-retroviral therapy (ART) at the time of admission.

- Drug adverse effects were not a common reason for admission, affecting only 10 (4%) patients, including five possibly due to anti-retroviral drugs.

- 25 (10%) patients were medically fit for discharge from acute care on the day of review but could not be discharged because of lack of rehabilitation or social care and/or poor housing circumstances. Some had very intensive residential care rehabilitation needs.

### Figure 1: Diagnoses or reasons for hospital admission (totals add to more than 100% because some patients had more than one condition)

### Confidentiality protocol

The confidentiality protocol for BHIVA audits is changing, following a vote by participating departments. In future the audit co-ordinator and committee members working with her to analyse data will not be blinded to clinic identities. This should help in understanding local care arrangements better, and in communicating with clinicians. As before, BHIVA will not publish audit data for identifiable departments, but providers may choose to release their own data, and commissioners may require it. Also as before, BHIVA will not collect data which could identify individual patients.
Several audits have raised concern about late diagnosis of HIV, and this remains a problem. BHIVA, the British Association for Sexual Health and HIV and the British Infection Society have published new guidelines on HIV testing to address this. More recent audits have also highlighted patients with diagnosed HIV infection who are not receiving treatment despite advanced disease.

The inpatient snapshot included 42 patients (16%) who were not on anti-retroviral therapy when admitted to hospital despite a CD4 count under 200 cells/mm³ and having been diagnosed at least 3 months earlier, and a follow-up questionnaire was used to seek more information on this sub-group. The findings are illustrative even though statistically meaningful conclusions cannot be drawn due to small numbers. Several patients had histories of very poor clinic attendance and/or refusing treatment, some of whom died during or soon after their admission. Clinicians described intensive efforts to encourage some patients to accept care, eg multi-agency work, home visits, and frequent phone calls. This shows that a minority of patients need extra support involving a lot of clinician input, and may still be at high risk of poor outcomes.

Audit publications

Publication and feedback is an essential part of the audit cycle, to enable clinicians and others to reflect on findings and change practice if necessary. The subcommittee sends each clinic or department a confidential summary of its own results with aggregated data for comparison, as well as presenting national results at conferences and on the BHIVA website at www.bhiva.org.

The committee also seeks to publish its major findings in appropriate peer-reviewed journals. Articles to date are as follows:

1. Street E, Curtis H, Sabin CA, Monteiro EF, Johnson MA, on behalf of the British HIV Association (BHIVA) and BHIVA Audit and Standards Subcommittee. British HIV Association (BHIVA) national cohort outcomes audit of patients commencing antiretrovirals from naïve. Submitted for publication.

2. Lomax N, Curtis H, Johnson M on behalf of the British HIV Association (BHIVA) and BHIVA Clinical Audit Subcommittee. A national review of assessment and monitoring of HIV patients. *HIV Medicine*, accepted for publication.


Future plans

In 2008–9 the committee is conducting an audit of management of HIV and tuberculosis co-infection and a survey of arrangements for multidisciplinary review of patients for whom treatment fails and/or who develop drug resistance. An audit of hepatitis B and C co-infection is in the pipeline for 2009–10.

Financial details

BHIVA’s National Clinical Audit programme for 2007–8 has been funded by the Department of Health. Costs are within budget, with any surplus being carried forward towards the audit programme for 2008–9.

Further information

Details of previous BHIVA audits together with specimen questionnaires findings and reports, list of articles and further resources are available on the BHIVA website at: http://www.bhiva.org/cms1187506.asp

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