British HIV Association
AUDIT ANNUAL REPORT 2017–2018

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Key findings and recommendations

In 2016, 37.8% of people seen for HIV care in the UK were aged 50 or over, and this proportion is rising due to excellent antiretroviral therapy (ART) outcomes leading to improved survival, together with a reduction in new transmission. While welcome, ageing among people with HIV presents increasing scope for comorbidity and polypharmacy. Hence the 2018 BHIVA national audit aimed to assess the routine monitoring of adults aged 50 or over attending for UK HIV care. In terms of key outcomes specified in guidelines, targets for monitoring of HIV viral load (VL) and blood pressure (BP) were met, but not those for cardio-vascular (CVD) risk assessment, recording of co-medication, and recording of smoking history. Monitoring of other outcomes was variable but generally better for adherence and laboratory measurements that for well-being, lifestyle and bone risk.

Recommendations are that clinics should have agreed methods locally of achieving the minimum standards specified in guidelines:

- Use of pro formas can help as a prompt
- Electronic reminders should be set up with appointments for annual review
- For older individuals, this should focus on: CVD and bone assessment; mood, memory and cognition review; polypharmacy and scope for drug–drug interactions
- Where available, the electronic Summary Care Record or similar systems should be consulted to check, for example, prescribed medications.

Monitoring of older adults with HIV

The main audit for 2018 was of monitoring and assessment of adults aged 50 or over seen for routine HIV care. Results for key outcomes specified in *BHIVA guidelines for the routine investigation and monitoring of adult HIV-1-positive individuals 2016* were as follows:

- Patients on ART with HIV VL measured within the last 9 months or within the last 15 months if taking a protease inhibitor (PI) (target 90%): 97.2% achieved nationally; site median (IQR) 97.5% (95.0–100.0%)
- Patients on ART should have a list of all current medication, or note that no medication other than ART is being taken, recorded within the past 15 months (97%): 93.9% achieved nationally; site median (IQR) 97.3% (92.3–100.0%)
- Patients aged over 40 years with a 10-year CVD risk calculated within the last 3 years if taking ART (90%): 67.0% achieved nationally; site median (IQR) 73.1% (50.0–92.1%)
- Patients with a smoking history documented in the last 2 years (90%): 80.4% achieved nationally; site median (IQR) 90.0% (70.0–97.5%)
- Patients with BP recorded in the last 15 months (90%): 91.8% achieved nationally; site median (IQR) 97.3% (92.3–100.0%)

Even though not all targets were met, this represented improvement on outcomes for individuals aged over 50 in BHIVA's 2015 monitoring audit, as shown in Table 1.

Among other outcomes included in the audit, performance was variable but generally better for monitoring of adherence and laboratory measurements as compared with recording of well-being, lifestyle and fracture risk assessment, as shown in Table 2. Communication from the HIV service to GPs was reported for 89.7% of consenting individuals. Communication from GPs to the HIV service was less often reported (7.4%) and most participating HIV services did not report use of the Summary Care Record or similar systems to check information on medications prescribed, even where these were likely to have been available.

Nearly two-thirds of individuals (66.2%) included in the audit were aged 50–59 years, reflecting current demographics of people receiving HIV care. However, the prevalence of common comorbidities (hypertension, hyperlipidaemia, type 2 diabetes, CVD, renal impairment, depression with or without anxiety, osteoporosis and obesity) increased sharply with age, as shown in Figure 1. While two-thirds of individuals aged 50–54 years had none or one of these conditions, most of those aged 65 or over had at least two. Polypharmacy similarly increased with age, with most individuals over 70 taking at least four non-ART medications. This illustrates the need for clinical services to prepare for increasing rates of comorbidity and polypharmacy as the age profile of their patients rises.

Table 1: Comparison of national results of 2018 audit with individuals aged 50 or over included in the 2015 monitoring audit

Outcome	2015 audit (% aged ≥50 years)	2018 audit (% aged ≥50 years)	Target (%)
HIV VL monitoring	91.8	97.2	90*
Recording of all current medication	89.9	93.9	97
10-year CVD risk calculated	50.6	67.1	90
Smoking status recorded	67.8	80.4	90
BP recorded	87.5	91.8	90

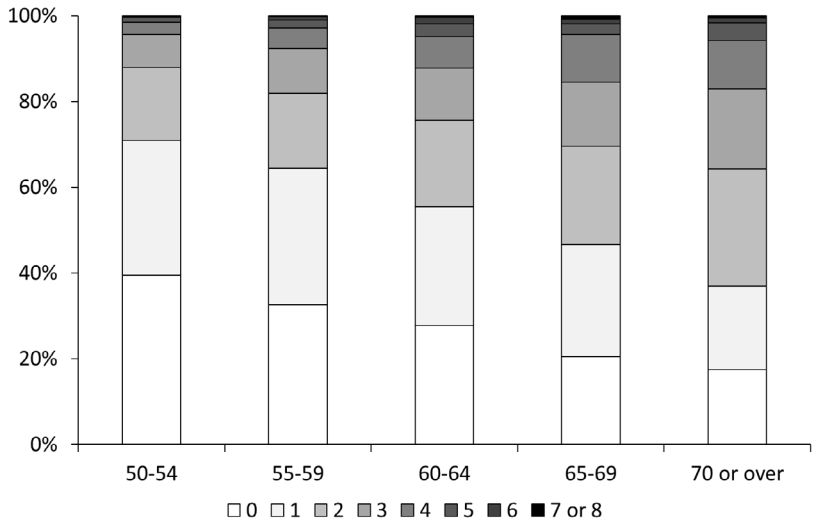
**NB: Outcome changed in guidelines: 2015 within 6 months (target 80%); 2018 within 9 months or 15 if on PI (90%).*
BP: blood pressure; CVD: cardiovascular disease; VL: viral load; PI: protease inhibitor

Table 2: Results for secondary outcomes: number (%) of individuals for whom recorded within 15 months, unless specified

Outcome measure	Audited result *n* (%)
ART management	
Adherence if on ART *(N=4852)*	4536 (93.5)
Measurements	
Weight or BMI recorded	4389 (88.5)
Random glucose or HbA1c	3962 (79.9)
Random lipid profile	4466 (90.1)
Urinalysis or uP/C	4148 (83.7)
Bone health	
Fracture risk assessed (FRAX or DEXA, 3 years)	2247 (45.3)
Psychological well-being and substance use	
Asked about mood/mental health	3495 (70.5)
Asked about memory/cognition	1367 (27.6)
Asked about alcohol	3455 (69.7)
Asked about recreational drugs	2953 (59.5)
Sexual health	
Sexual partners and possible PN discussed	3124 (63.0)
Sexual health screen offered	3075 (62.0)
Syphilis serology tested	3668 (74.0)
Cervical cytology done, or advised to request (women ≤65 years, *N=1137*)	768 (67.5)
Menopause status recorded (women ≤56 years, *N=739*)	511 (69.1)
Immunisation	
Recorded that received/advised re flu vaccine (last season)	1924 (59.6)
Recorded that received pneumococcus vaccine (ever)	1690 (34.1)

ART: antiretroviral studies; BMI: body mass index

Figure 1: Proportion of audited individuals reporting different numbers of common co-morbidities, by age category



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 clinical service 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 subcommittee also seeks to publish its major findings as peer-reviewed articles, and to make these available on an open access basis where feasible. Articles include:

1. Byrne R, Curtis H, Sullivan A, et al on behalf of the BHIVA Audit and Standards Subcommittee, 2018. A National Audit of late diagnosis of HIV: action taken to review previous healthcare among individuals with advanced HIV. https://www.bhiva.org/file/GjiksPVYUfveu/LateDiagnoses_Final.doc
2. Molloy A, Curtis H, Burns F, Freedman A on behalf of the BHIVA Audit and Standards Subcommittee. Routine monitoring and assessment of adults living with HIV: results of the British HIV Association (BHIVA) national audit 2015. *BMC Infect Dis* 2017; **17**: 619.
3. Michael S, Gompels M, Sabin C, et al. Benchmarked performance charts to improve the effectiveness of feedback of audit data in HIV care. *BMC Health Serv Res* 2017; **17**: 506.
4. Raffe S, Curtis H, Tookey P, et al on behalf of the BHIVA Audit and Standards Subcommittee. UK national clinical audit: management of pregnancies in women with HIV. *BMC Infect Dis* 2017; **17**: 158.
5. Rayment M, Curtis H, Carne C et al on behalf of the members of the British Society for Sexual Health and HIV National Audit Group, and the BHIVA Audit and Standards Subcommittee. An effective strategy to diagnose HIV infection: findings from a national audit of HIV partner notification outcomes in sexual health and infectious disease clinics in the UK. *Sex Transm Infect* 2017; **93**: 94–99.
6. Curtis H, Yin Z, Clay K et al on behalf of BHIVA Audit and Standards Subcommittee. People with diagnosed HIV infection not attending for specialist clinical care: UK national review. *BMC Infect Dis* 2015; **15**: 315.
7. Arie S. Are migrant patients really a drain on European health systems? *BMJ* 2013; **347**: f6444.
8. 8 Ellis S, Curtis H, Ong ELC on behalf of the British HIV Association (BHIVA) and BHIVA Clinical Audit and Standards Subcommittee. A survey of HIV care in the UK: results of British HIV Association (BHIVA) National Audit 2010. *Int J STD AIDS* 2013; **24**: 329–331.
9. Ellis S, Curtis H, Ong ELC on behalf of the British HIV Association (BHIVA) and BHIVA Clinical Audit and Standards Subcommittee. HIV diagnoses and missed opportunities: results of the British HIV Association (BHIVA) National Audit 2010. *Clin Med* 2012; **12**: 430–434.
10. Garvey L, Curtis H, Brook G for BHIVA Audit and Standards Subcommittee. The British HIV Association national audit on the management of subjects coinfected with HIV and hepatitis B/C. *Int J STD AIDS* 2011; **22**: 173–176.
11. Backx M, Curtis H, Freedman A, Johnson M. BHIVA and BHIVA Clinical Audit Subcommittee. British HIV Association national audit on the management of patients co-infected with tuberculosis and HIV. *Clin Med* 2011; **11**: 222–226.
12. Rodger A J, Curtis H, Sabin C, Johnson M. British HIV Association (BHIVA) and BHIVA Audit and Standards Subcommittee. Assessment of hospitalizations among HIV patients in the UK: a national cross-sectional survey. *Int J STD AIDS* 2010; **21**: 752–754.
13. Street E, Curtis H, Sabin CA et al 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. *HIV Med* 2009; **10**: 337–342.
14. 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 Med* 2009; **10**: 125–128.
15. Lucas SB, Curtis H, Johnson MA on behalf of the British HIV Association (BHIVA) and BHIVA Audit and Standards Subcommittee. National review of deaths among HIV infected adults. *Clinl Med* 2008; **8**: 250–252.
16. Hart E, Curtis H, Wilkins E, Johnson M on behalf of the BHIVA Audit and Standards Subcommittee. National review of first treatment change after starting highly active antiretroviral therapy in antiretroviral-naïve patients. *HIV Med* 2007; **8**: 186–191.
17. De Silva S, Brook MG, Curtis H, Johnson M on behalf of the BHIVA Audit and Standards Subcommittee. Survey of HIV and hepatitis B or C co-infection management in the UK 2004. *Int J STD AIDS* 2006; **17**: 799–801.
18. Curtis H, Johnson MA, Brook MG. Re-audit of patients initiating antiretroviral therapy. *HIV Med* 2006; **7**: 486.
19. McDonald C, Curtis H, de Ruiter A et al on behalf of the British HIV Association and the BHIVA Audit and Standards Subcommittee. National review of maternity care for women with HIV infection. *HIV Med* 2006; **7**: 275–280.
20. Sullivan AK, Curtis H, Sabin CA, Johnson MA. Newly diagnosed HIV infections: review in UK and Ireland. *BMJ* 2005; **330**: 1301–1302.
21. Brook MG, Curtis H, 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, 2002. *HIV Medicine* 2004; **5**: 415–420.
22. Curtis H, Sabin CA, Johnson MA. Findings from the first national clinical audit of treatment for people with HIV. *HIV Med* 2003; **4**: 11–17.

Standards of care for people living with HIV

New evidence based *Standards of care for people living with HIV 2018* were published during the year, and are designed to provide a reference point against which to benchmark the quality of HIV care in the context of the changing needs of patients and current financial pressures. The document comprises eight quality standards, covering the care that adults living with HIV in the UK should expect to receive, each supported by a rationale, quality statements and measurable and auditable outcomes. New sections, not included in previous BHIVA standards, address HIV prevention, stigma and well-being, and HIV across the life course.

Investigation of late diagnoses

Following the 2016 audit which found that 46% of adults diagnosed with advanced HIV (CD4 <200 cells/mm^3) had earlier missed opportunities for diagnosis, a standardised process for investigating late diagnoses is being piloted in a number of clinical sites with a view to inclusion in future nationally commissioned service specifications. The process involves serious incident reviews in cases where serious harm results from delayed diagnosis and clear or likely missed opportunities for earlier testing have occurred, and lighter touch serious learning events in less severe cases.

Psychological well-being and patient-reported outcome measures (PROMs)

The 2017 BHIVA audit found wide variation between services in the proportion of HIV patients who had been asked about their psychological well-being/mental health and substance use, and also wide variation in reported psychological status among those who had been asked. A brief follow-up is planned for autumn 2018, to assess quality improvement activity since the audit, while an academic project is progressing to develop a PROM for assessing quality of care for people with HIV, led by Dr R Harding, Kings College London. A draft paper on methods has been submitted for publication and the PROM is being piloted with a subset of participants in a Europe-wide app-based study. It is hoped that the PROM development project will enable better guidance to HIV services on how to assess well-being in routine clinical practice. It follows from BHIVA scoping work and is supported by the MAC AIDS Fund and St Stephen's AIDS Trust.

2019 audit plans

Following a recent publication based on surveillance data reporting individual clinic-level variation from 14% to 100% in the proportion of individuals starting ART within 90 days of diagnosis in 2016, the subcommittee plans to audit the management pathway for new diagnoses as its main project for 2019. This may include the place and context of testing, timelines to specialist consultations, test results, and offer/discussion of and initiation of ART, reasons for any delays, and recorded discussion that a person with sustained viral suppression on ART cannot transmit HIV to sexual partners (undetectable = untransmittable, U=U).

Further Information

Details of previous BHIVA audits together with specimen questionnaires, findings and reports, the list of articles and further resources are available on the BHIVA website https://www.bhiva.org/Clinical-Audits

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