

# Routine monitoring and assessment of adults with HIV

BHIVA national audit 2015

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Audit and Standards Sub-Committee

# Aim and method

Audit adherence to BHIVA guidelines for routine investigation and monitoring of adult HIV-1-infected individuals 2011 and, where relevant, immunisation guidelines.

Case-note review of adults (>16) who attended for specialist HIV care during 2014 +/- 2015:

- 50-100 patients per HIV service
- Self-audit spreadsheet tool used
- Data collected during June-August 2015

Accompanying brief survey of clinic practice/policy

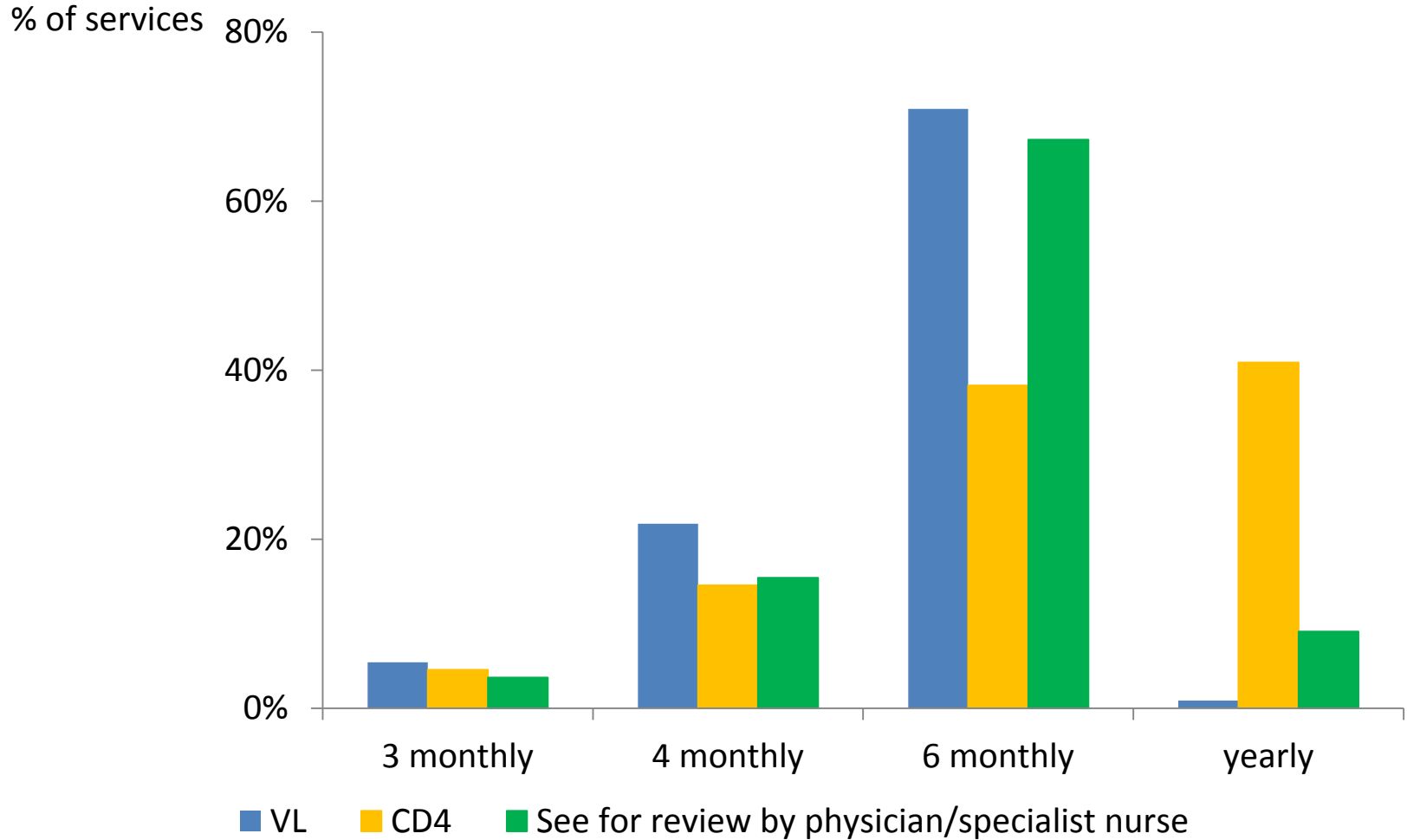
# Participation

- 123 services submitted patient data
- 112 completed the survey

# **Clinic practice/policy survey**

# Frequency of monitoring

Patients stable on ART with fully suppressed VL and CD4 >350 cells/mm<sup>3</sup>



# Provision within HIV clinic

- Sexual health screening: 86% of services
- Cervical cytology: 64% of services
- Flu vaccination: 64% of services

# Case-note audit

# Demographics

<b>Total</b>		<b>8258</b>	<b>100%</b>
<b>Sex</b>	Male	5482	66.4%
	Female	2763	33.5%
	Transgendered/ transgendering	9	0.1%
	Not stated	4	0.0%
<b>Ethnicity</b>	White	4853	58.8%
	Black-African	2592	31.4%
	Other	733	8.9%
	Not recorded/not stated	80	1.0%



# Demographics, continued

<b>Total</b>		<b>8258</b>	<b>100%</b>
<b>Exposure</b>	Heterosexual	4320	52.3%
	MSM	3550	43.0%
	Other	252	3.1%
	Not recorded/not stated	136	1.6%
<b>Age</b>	16-29	674	8.2%
	30-49	5001	60.6%
	50-69	2396	29.0
	70+	172	2.1%
	Not stated	15	0.2%

# Attendance for care

Inclusion criterion was HIV clinic attendance during 2014 and/or 2015.

Most were recent attenders:

- 62.0% seen and reviewed by a clinician within 3 months up to audit data extraction in June-August 2015
- 96.5% within 1 year

# **ART status and management**

# Baseline resistance testing

Target 90%

Achieved: 80.8%

Not  
achieved:  
19.2%

19.2% no resistance  
test recorded

9.1% not  
possible, eg  
transferred in  
VL suppressed

1.4% neither  
tested nor  
sample stored

7.9% not  
recorded/not  
known

0.8% not  
answered

# Variation in resistance testing

- 33 (27%) sites had a recorded resistance test or stored sample for >90% of audited patients
- 33 (27%) sites had a recorded resistance test or stored sample for <75% of audited patients

# 7395 (89.5%) patients were on ART

90.1% (6660) VL measurement within past 6 months

Target

80%

93.4% (6908) annual\* adherence documentation

70%

89.0% (6584) annual\* recording of all medication

100%

\*To allow for varying appointment dates, guidelines recommending “annual” monitoring/procedures were interpreted as within 14 months (425 days).

# **Viral hepatitis**



# Hepatitis A

Guideline: People with HIV should be screened for HAV immunity, and vaccinated if susceptible.

Vaccinated/immune/seropositive	5053	61.2%
Equivocal	2	0.0%
Seronegative	983	11.9%
Not recorded	1979	24.0%
Not answered	241	2.9%

# Hepatitis A susceptibility

11.9% of patients were apparently unvaccinated and seronegative for hepatitis A

Status was not recorded for a further 24.0%

Among 306 hepatitis B infected (HBsAg+) individuals, 24 (7.8%) were apparently unvaccinated and seronegative for hepatitis A

# Hepatitis B

Guideline: People with HIV should be screened for anti-HBc, anti-HBs, HBsAg, and vaccinated if susceptible.

Anti-HBc, anti-HBs, HBsAg status all reported	6781	82.1%
HBsAg positive, antibody status incomplete	72	0.9%
HBsAg negative, antibody status incomplete	841	10.2%
HBsAg not known	437	5.3%
HBsAg not answered	127	1.5%

# Hepatitis B antibody titre

Guideline: Patients successfully immunised against HBV should have annual anti-HBs test.

3605 individuals were positive for anti-HBs and negative for HBsAg and anti-HBc:

- 2416 (67.0%) annual anti-HBs test done

# Hepatitis C

Guideline: People with HIV should be screened for hepatitis C antibodies.

Hepatitis C antibody negative	7539	91.3%
Hepatitis C antibody positive	439	5.3%
Equivocal	1	0.0%
Not known	194	2.3%
Not answered	85	1.0%

# Further hepatitis C testing

Guideline: Anti-HCV negative patients should be re-tested regularly, annually for MSM/IDU.

Done as follows for anti-HCV negative patients:

- 65.4% of all
- 74.1% of MSM
- 61.8% of IDU

Guideline: Anti-HCV positive patients should be tested for HCV RNA and, if positive, genotype.

RNA test done for:

- 91.1% anti-HCV positive patients

# Cardiovascular health

# Calculation of CVD risk

Guideline: 10 year CVD risk should be calculated within 1 year of first presentation, and within past 3 years if on ART.

44.9% of those on ART, within past 3 years

32.3% of those not on ART, at any time

Combined: 43.6%

Excluding individuals with established CVD, or age <50 and obviously at low risk: 45.2%

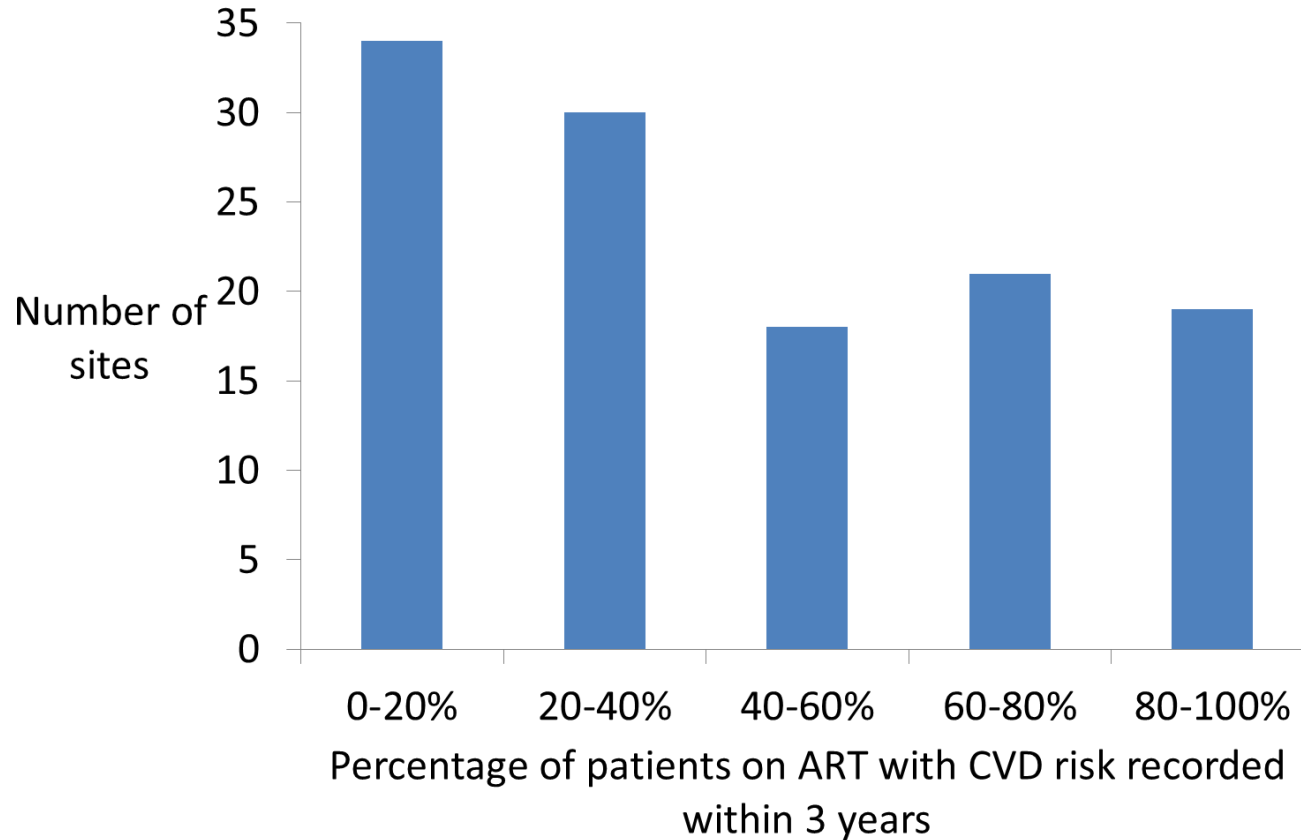
Target

70%

70%



# Variation in CD risk calculation according to site



26 (21%) sites met the 70% target for patients on ART to have had CD risk recorded within 3 years

# BP, glucose, lipids

Guideline: BP, glucose and lipid profile should be assessed annually.

BP: 85.5%

Glucose: 77.0%

Lipids: 83.2%

Target  
90%

# Smoking

Guideline: Smoking history should be documented within past 2 years.

Documented within past 2 years: 65.9%

Of 34.1% not documented within past 2 years:

Never smoker: 13.7%

Current smoker: 3.7%

Ex-smoker: 2.4%

Smoking status not answered: 14.3%



Target  
90%

# Smoking cessation

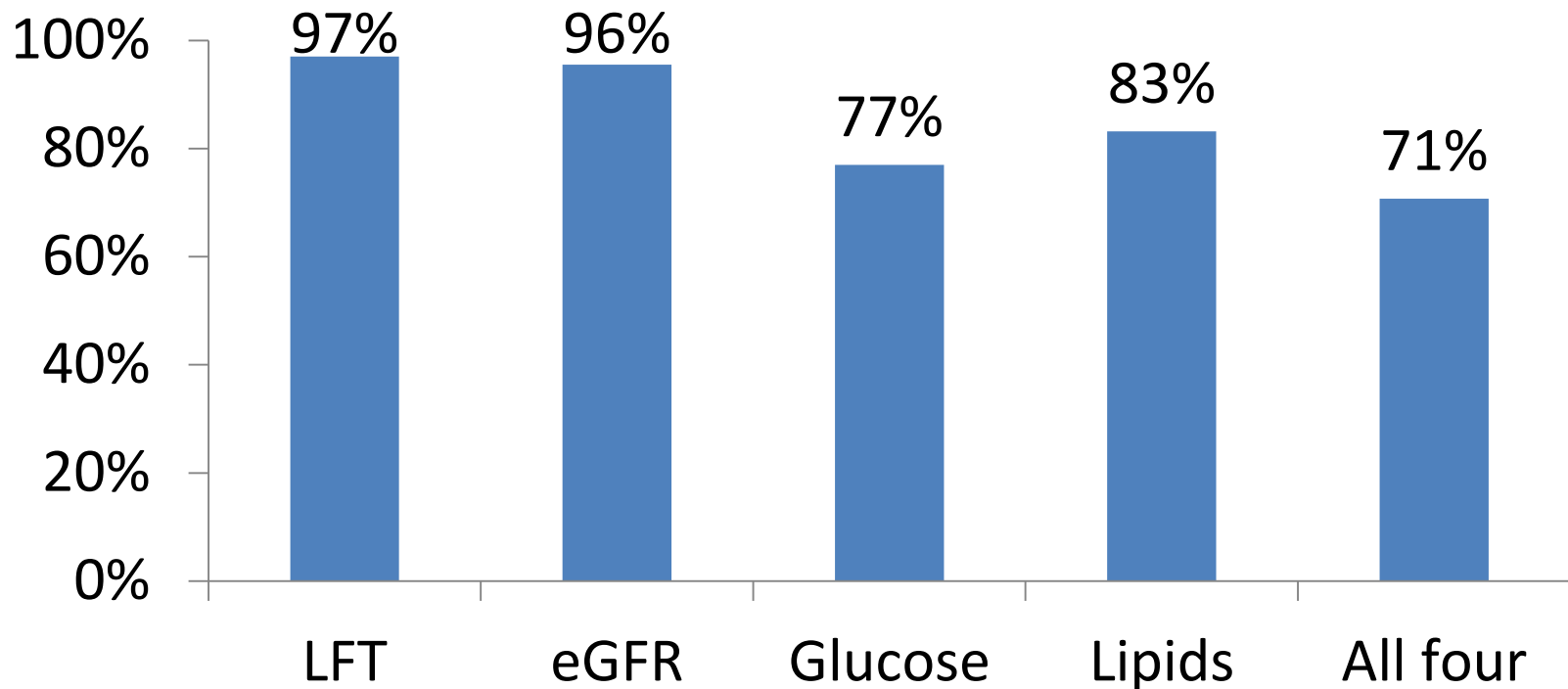
Guideline: People with HIV should be encouraged to stop smoking (cancer guidelines).

- 45.2% of current smokers had been offered a cessation service

# Laboratory measurements

# LFT, eGFR, glucose, lipids

Guideline: LFT, eGFR, glucose and lipid profile should be assessed annually.



Note: self-audit spreadsheet tool did not present results for individual measurements, only all four together.

# Urinalysis and uP/C ratio

Guideline: Urinalysis and urine protein/creatinine ratio should be assessed annually, with urinalysis 3-6 monthly if on tenofovir.

Urinalysis or uP/C:

Not on tenofovir, annually: 73.7%

On tenofovir, 6 monthly\*: 74.8%

Combined: 74.4%

\*To allow for varying appointment dates, six monthly was interpreted as within 8 months (243 days).

# **Sexual and reproductive health**



# Sexual health screening

Guideline: Patients should be offered annual sexual health screen, and HIV notes should record outcome of offer, including whether declined.

Recorded as offered for:

- 65.7% all patients
- 72.7% of MSM
- 60.8% of heterosexuals

# Syphilis serology

Guideline: Syphilis serology should be documented at 3-monthly intervals as part of routine HIV blood set (unless indicated otherwise).

Done within 8 months (243 days) for:

- 63.0% all patients
- 73.4% of MSM
- 55.3% of heterosexuals

# Cervical cytology

Guideline: Cervical cytology should be performed annually.

- 53.2% of women: done
- 21.9% of women: recorded that advised to obtain from GP or sexual health clinic

Note: the self-audit spreadsheet tool did not provide an option for women ineligible for cervical cytology.

# Contraception

Guideline: Contraception and plans for conception should be discussed annually.

- Contraception was reported not relevant for 31.7% of women
- It had been discussed for 63.0% of women for whom it was relevant

# **Bone health**

# Fracture risk and BMD

Guideline: Fracture risk should be assessed every 3 years if aged >50.

- 16.7% done

Guideline: Among those on ART, bone mineral density should be measured in men >70 and women >65.

- 17.4% done for both sexes >70

# Variation in fracture risk assessment

- 16 (13%) sites recorded fracture risk assessment within past 3 years for >50% of patients aged over 50
- 54 (44%) sites recorded this for <5% of patients aged over 50

# **Respiratory vaccination**



# Flu and pneumococcus vaccine

Guideline: People with HIV should be offered annual influenza vaccine.

Done: 21.1%

Advised obtain from GP: 36.2%

Target  
95%

Guideline: Patients with CD4  $>200$  cells/mm<sup>3</sup> should receive pneumococcus vaccine.

- 26.4% done

# **Conclusions and recommendations**

# Conclusions

The audit achieved good participation and showed good practice in some areas.

However, areas of possible concern included:

- Variation in recording of baseline resistance test
- Low rates of monitoring of cardiovascular and bone health, with wide variation
- Smoking status not reported for one in seven patients

# Conclusions, continued

- Significant proportion of patients with unknown HBsAg status at some sites
- Individuals susceptible to HAV, including those infected with HBV
- Low reported coverage of flu and pneumococcus vaccine.

Some findings may reflect issues of recording/reporting, especially in relation to care provided outside the HIV specialist service itself.

# Recommendations

- Clinical services should review and develop systems to prompt both performance and recording of recommended interventions
- Efforts should be made to obtain resistance data for *all* HIV patients
- Clinical attention should focus on CVD and smoking-related disease, as major health concerns for people with HIV

# Acknowledgements

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Committee membership:

- A Freedman (chair), B Angus, D Asboe, G Brough, F Burns, D Chadwick, D Churchill, H Curtis (co-ordinator), V Delpech, K Doerholt, Y Gilleece, P Gupta, A Molloy, J Musonda, C Okoli, O Olarinde, E Ong, S Raffe, M Rayment, C Sabin, A Sullivan