17TH ANNUAL CONFERENCE OF THE BRITISH HIV ASSOCIATION (BHIVA)

British HIV Association BHIVA

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6-8 April 2011, Bournemouth International Centre

HIV testing and diagnosis

Dr Simon Ellis

On behalf of the
Audit & Standards Sub-Committee

National HIV testing guidelines 2008

- Main recommendations
  - HIV test offered routinely
    - in GUM, antenatal, TOP, drug dependency, TB, viral hepatitis B/C, lymphoma services
    - to patients with listed indicator conditions
    - to patients in risk categories
  - Where diagnosed prevalence >2/1000, routinely offer test to (subject to pilot):
    - adults registering in general practice
    - in all general medical admissions

Aims and methods

To assess timeliness of HIV diagnosis and impact of 2008 national testing guidelines, in particular:

- Local action to promote testing
- Circumstances of diagnosis, previous history and missed opportunities for testing
- Time from first positive test to be seen in HIV service

➢Survey of local testing policy and practice.

➢Retrospective review of patients first *seen* post-diagnosis during August-October 2010, regardless of date of test. Up to 40 patients/site.

Survey of clinic sites

Site characteristics

- 132 participating sites

GUM	84%
HIV, non-GUM	8%
Infectious Diseases	5%
Combined all three	3%

- Total HIV caseload

<100 patients	24%
101 – 200	22%
201 - 1000	43%
>1000	10%
Not stated	1 site

To recap

Data on testing practice was presented yesterday by

Dr Martin Fisher:

- Testing routinely offered and recommended in GUM and antenatal settings
- Variable practice in other settings
- Testing addressed through commissioning via CQUIN, LES in some areas.

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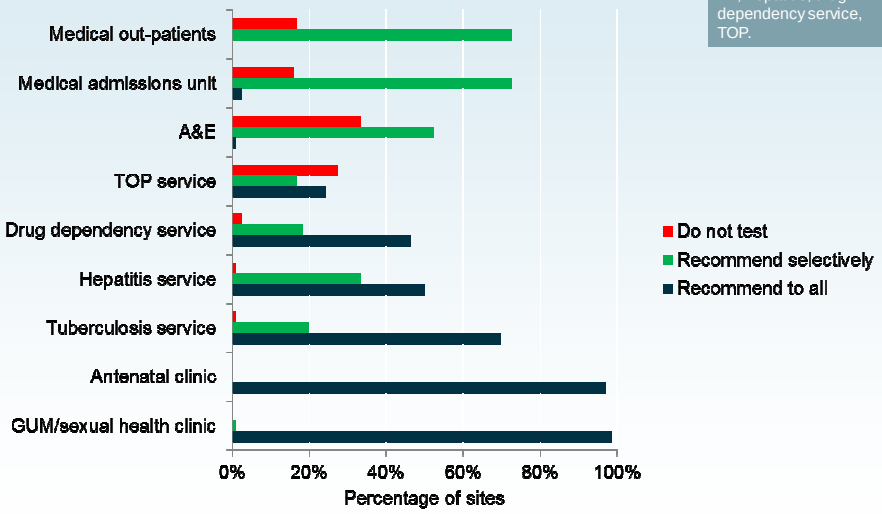
HIV testing in local clinical services

Guidelines: Recommend routinely in GUM, AN, TB, hepatitis, drug dependency service, TOP.



NB: totals do not add to 100% as some HIV services were unsure of testing arrangements in other local clinical services.

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Action taken to promote HIV testing

Presentation to colleagues from other departments	90%
Presented case of late HIV diagnosis at grand rounds	86%
Raised re cases presented by others at grand rounds	83%
Trained clinicians from other departments	76%
Initiated/supported introduction of routine testing in another department	62%
Discussed need for more testing with trust medical director	52%
Advised on setting up/expansion of community testing	52%
Introduced HIV care pathway(s) for other departments	51%
Displays or roadshows for staff in other departments	27%
Requested medical director to consider routine testing for all general medical admissions	16%

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Test technologies

Guidelines: 4th generation recommended.

4th generation tests:

- 91% sites use routinely
- 6% do not use routinely
- 4 sites unsure/no answer

POCT (point of care) testing:

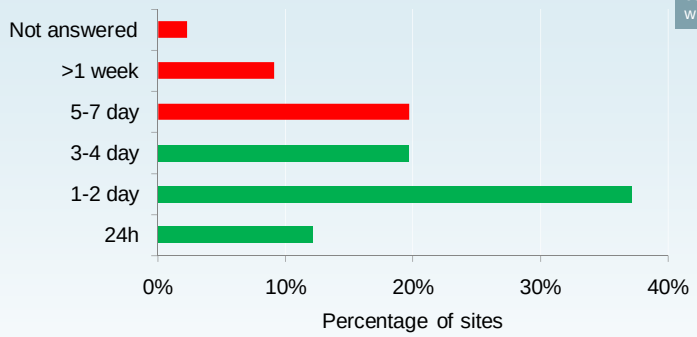
- 53% sites use in some cases, 3 routinely unless possible recent exposure
- 45% do not use
- 3 sites unsure/no answer

STARHS/RITA:

- 43% sites use routinely, 27% sometimes use

Laboratory turnaround times

Guidelines: Routine opt-out results available within 72 hours.



Usual time to receive non-urgent, confirmed positive HIV test result (not reference laboratory confirmation)

12 (9%) sites were not satisfied with provision of urgent testing when this was clinically required.

Issues raised in comments

- GUM not part of acute trust and on separate site, not able to attend grand rounds.
- Phlebotomists not allowed to do HIV tests, only doctors.
- Concerns about default if patients tested outside GUM.

Frustration – but also a lot of progress.

Review of patients first seen for HIV care during August-October 2010

Patient characteristics

Total	Number 1112	Percent 100	Comparison: HPA new diagnoses 2009 (%)
Sex:			
Male	782	70.3	66.4
Female	308	27.7	33.6
Ethnicity:			
White	604	54.3	48.3
Black-African	365	32.8	33.3
Other	129	11.6	13.1
Route:			
MSM	509	45.8	37.3
Heterosexual	505	45.4	48.0
Age:			
16-19	24	2.2	2.0*
20-39	659	59.3	58.9
40-49	262	23.6	25.1
50-59	115	10.3	9.2
60+	50	4.5	3.7

NB totals on this and subsequent slides do not all add to 100% due to missing data.
*15-19.

Length of time in UK

Length of time in UK		%
< 2 years	Total	22
	Black Africans	20.8
> 2 years	Total	73.6
	Black Africans	72.9

GP registration and use

- 82.3% - registered with a GP at the time of testing HIV positive.
- At least 32.9% had attended their GP between January 2008 and testing positive.

HIV acquisition

- Infection acquired in UK
  - 58.0% of all patients
  - 21.4% of Black-African patients
- 10.9% patients were diagnosed with primary HIV infection
- 27.6% patients were known to have seroconverted since the start of 2008.

Initial CD4 and viral load

CD4 count at diagnosis (cells/mm^3)	%
<350	52.2
<200	29.9
<50	11.1

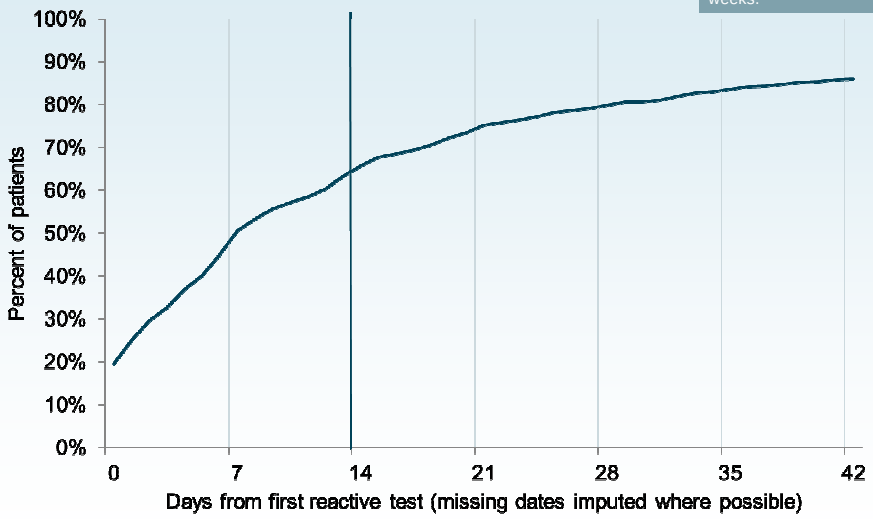
- 39.3% had HIV viral load >100,000 copies/ml when first measured

Where initial test was performed

Clinic setting	Number of patients	Percent of patients	Comparison: 2003 audit percent of patients
GUM/sexual health	598	53.8	66.0
HIV clinic (non-GUM)	17	1.5	2.3
General practice	116	10.4	4.8
Inpatient/Admissions	161	14.5	11.0
Accident & emergency	8	0.7	0.2
Outpatient	73	6.6	2.8
Antenatal	51	4.6	8.6
Community HIV test service	20	1.8	
Drug dependency	6	0.5	
Termination of pregnancy	2	0.2	0.2
Other	42	3.8	3.5
Not stated	18	1.6	0.7

Time to be seen by HIV clinician

Standards for HIV Clinical care: see within 2 weeks.



Reasons for testing

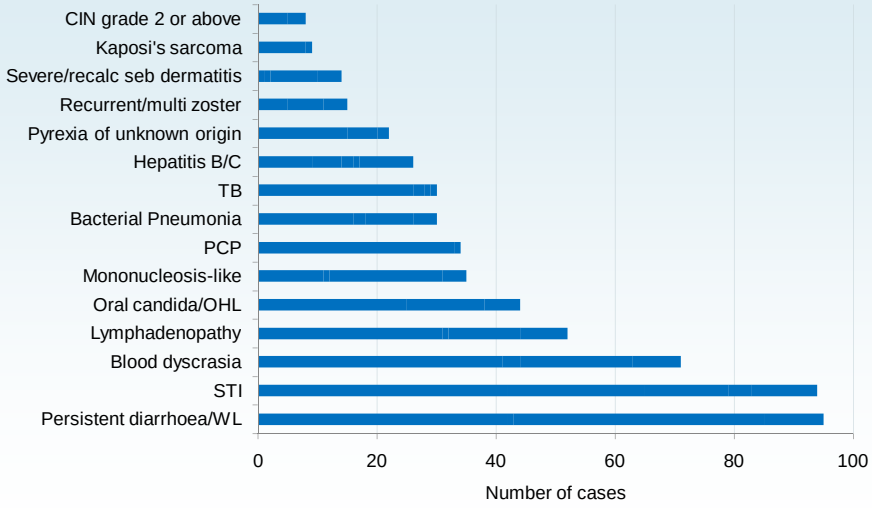
	Percent of patients
Routine for patients attending specific service	**43.4**
Routine because of demographic, risk or behaviour category	**23.5**
Routine for patients with specific condition	**11.7**
For diagnosis of presenting condition/disease	**27.9**
Patient initiated or requested test	**20.8**
Sexual contact of infected or high risk individual	**19.7**
Parent of infected child	**0.2**
NB: there could be more than one reason per patient.	

Indicator conditions for testing

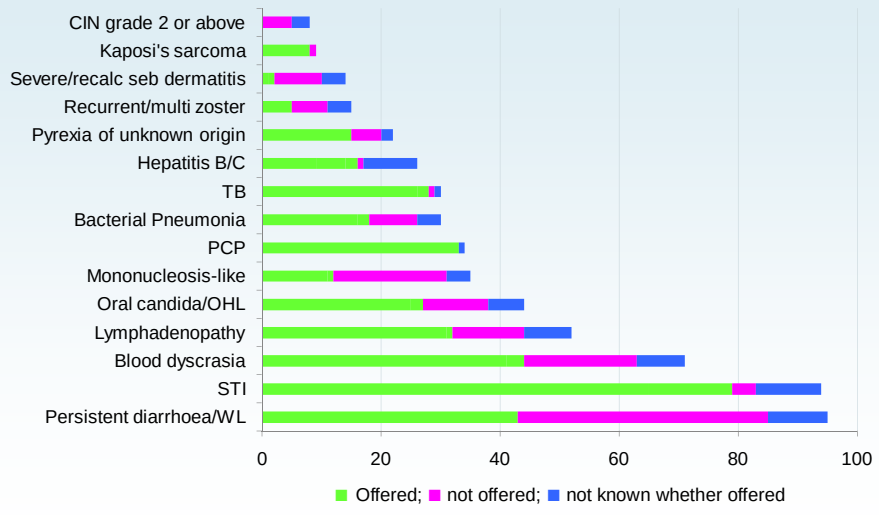
Between the start of 2008 and testing positive:

- 36.5% patients had one or more indicator condition as listed in guidelines
- This includes presenting conditions which led to diagnosis.

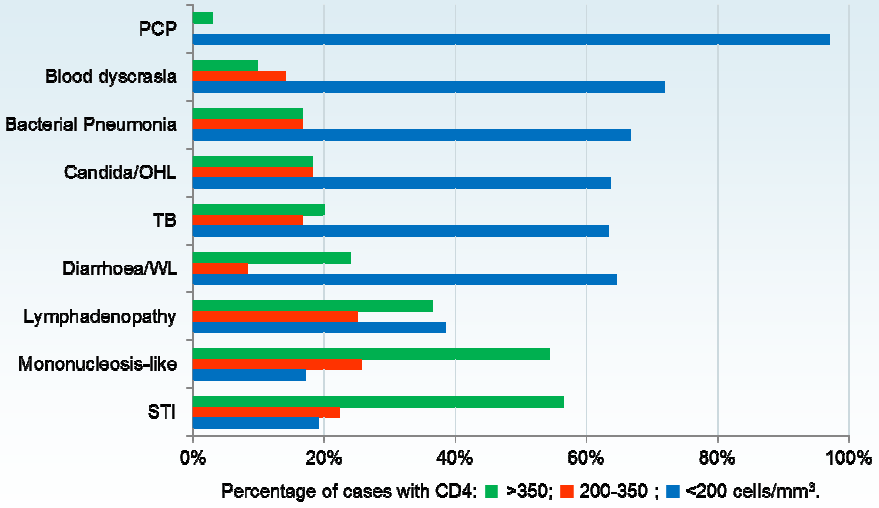
Frequency of indicator conditions



Test offer at time of indicator condition



CD4 count of patients with common indicator conditions



Missed opportunities for earlier diagnosis

As reported by the respondent:

- 25.2% of patients had had a missed opportunity for HIV testing before the actual first positive test.
- 51.9% had not had a missed opportunity.
- 22.9% unsure or not answered.

Not having a missed opportunity did not imply early diagnosis. 29% of PCP and 53% of TB cases presented without a previous missed opportunity.

Missed opportunities continued

As assessed in audit analysis:

- 161 (14%) patients had a missed opportunity since 2008 in circumstances where national guidelines would have recommended testing.
- Of these, 27 showed severe clinical deterioration between the missed opportunity and testing positive.

Conclusions

- HIV services have been active in promoting testing, but more still needs to be done.
- It is encouraging that more than 10% of newly diagnosed HIV patients had been tested by GPs.
- Around a third of sites do not meet standards for laboratory turn-around for routine HIV testing.
- There is scope to improve the proportion of patients seen in HIV specialist services within 2 weeks of testing positive.
- Patients tested as part of routine screening have higher CD4 counts.

Conclusions, continued

- The greatest scope for improving timeliness of HIV diagnosis lies in:
  - Extending opt-out testing in more settings
  - Targeting GPs, gastroenterology and haematology to test patients with chronic diarrhoea/weight loss, blood dyscrasias, or possible primary HIV infection
  - More testing in out-patient settings.

Key recommendations

- HIV specialists should re-double efforts to promote implementation of national testing guidelines.
- BHIVA should engage nationally with primary care and medical specialties, especially gastroenterology and haematology.
- National monitoring of both CD4 count at diagnosis and AIDS defining illness within 3 months should continue.
- Commissioners should consider extending CQUIN and LES arrangements to promote earlier diagnosis.
- Develop pathways to ensure patients testing positive are seen quickly (within 14 days).

2011 audit plans

Shift in emphasis towards core outcomes to be monitored year on year:

- 2011 audit of patients reported to SOPHID during 2009
- Main outcome: VL suppression on ART
- Subsidiary outcomes: CD4 not on ART, CVD monitoring
- Method designed to recognise where patients have stopped attending/attend irregularly
- Survey of psychosocial, adherence and attendance support.