

HIV testing of patients with indicator CNS infections in a large teaching hospital in England

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Background

Late diagnosis of HIV infection remains an important public health challenge with approximately 40% of individuals in 2014 diagnosed late.¹ UK and European HIV testing guidelines include a list of indicator conditions for HIV testing, including AIDS defining neurological conditions, aseptic meningitis or encephalitis and all those with invasive pneumococcal infections.²⁻⁵ Latest UK meningitis guidelines recommend HIV testing in **all cases of meningitis**.⁶

Aims

To review HIV testing of all patients with meningitis or encephalitis according to guidelines.

Methods

Clinical and laboratory data were collected between December 2012 and June 2016 for patients with encephalitis and meningitis in a single teaching hospital, which also has a tertiary referral infectious disease unit.

Patients were recruited prospectively according to predefined definitions for meningitis and encephalitis.

Clinical and laboratory records were reviewed to ascertain whether HIV tests had been performed and their outcomes.

Results

- Overall HIV tests were performed in 31/57 (54%) (Fig.3)
- 1 was not tested as was known positive
- 3 tests were positive (2 new cases, identified by Infectious diseases, (cryptococcal & aseptic meningitis) & a previously known case from another hospital had JC)
- 2 not tested reason documented 'as recently tested as part of booking bloods'

Fig.2 CNS infection aetiology breakdown

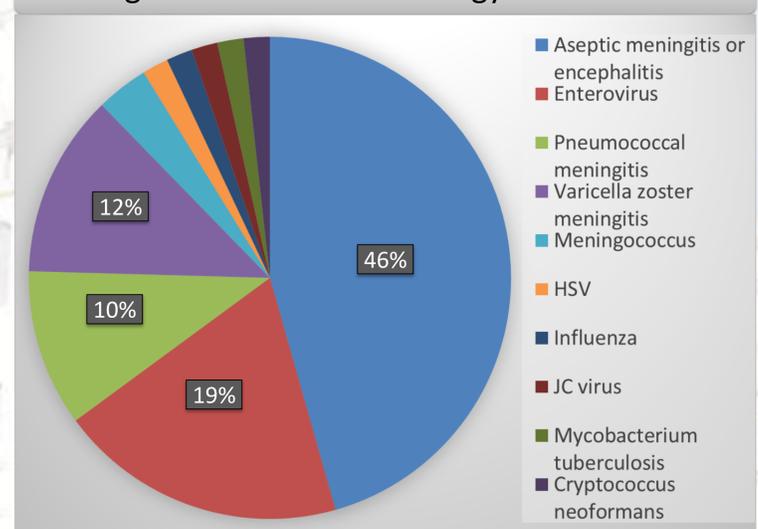


Fig.1 Screened individuals

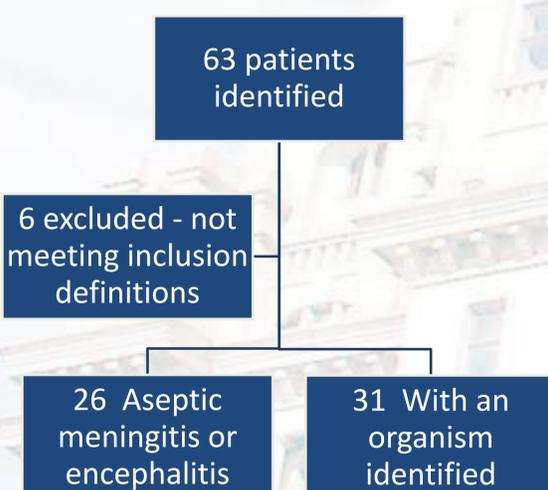


Fig.3 HIV testing overall & according to aetiology

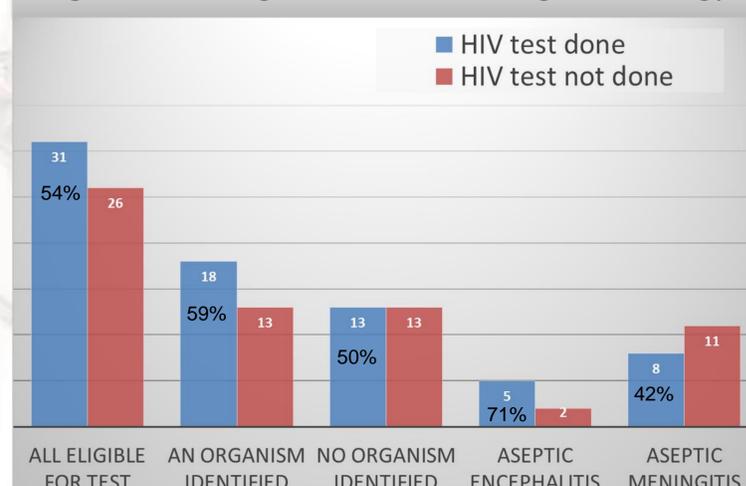
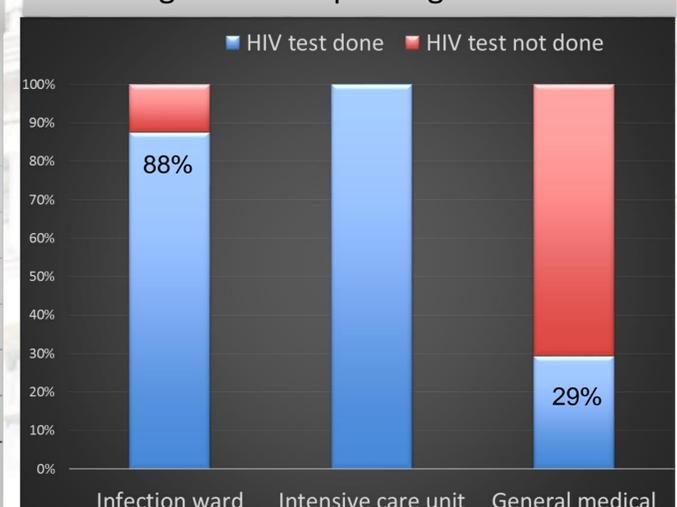


Fig.4 Team requesting HIV test



Conclusions

- Current guidelines recommend HIV testing for all patients with meningitis or encephalitis or with defined CNS infections.
- In this single teaching centre only 29% of patients are tested on general wards compared to 88% on specialist wards.
- At best, 59% of patients with proven CNS infections were tested, and only 50% of those with aseptic meningitis or encephalitis were tested.
- Further work is needed to promote HIV testing in general medical and emergency room settings, and quality improvement work has commenced.

References:

1. Public Health England. HIV in England 2014. Colindale.
2. BHIVA, BASHH and BIS. UK National Guidelines for HIV testing. HIV Medicine 2008
3. WHO Consolidated guidelines on HIV Testing services. 2015 downloaded from <http://www.who.int/hiv/pub/guidelines/hiv-testing-services/en/>
4. European HIV Indicator conditions: Guidance for implementing HIV testing in adults in Health Care settings. <http://hiveurope.eu/Portals/0/Guidance.pdf>
5. Management of suspected encephalitis in adults – Association of British Neurologists and British Infection Association National Guidelines. J Infect. 2012 Apr;64(4):347-73
6. The UK Joint specialist societies guideline on the diagnosis and management of acute meningitis and meningococcal sepsis in immunocompetent adults. J Infect. 2016 Apr;72(4):405-38.