HIV testing in the Acute Medicine Unit - results from the first two years

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Background

- UK studies have shown that HIV testing in acute settings is both feasible and acceptable.
- Ensuring high rates of HIV testing and sustaining this over a longer period has proved challenging.
- Leeds is an area of high HIV prevalence at 2.3/1000.

Methods

Routine opt out HIV testing commenced on the four acute admissions wards and the GP assessment unit (AMU) in January 2015.

The initial healthcare worker caring for the patient was asked to offer a HIV test to all patients aged 16 to 65.

To improve and sustain HIV testing we introduced the following measures

- 0.5 WTE nurse to support the project
- Regular educational sessions and weekly feedback to the acute medicine team
- A visible reminder on the ordercomms system as a prompt to request a HIV test.
- Blood samples already taken in A+E could have a HIV test performed on the sample sent to biochemistry such that no new blood sample was required.

HIV prompt on Ordercomms

Blood Sciences and Specialist Laboratory Medicine	ROUTINE AMU HIV SCREEN
☐ Urea and Electrolytes (UE)	ALL PATIENT ADMITTED TO AMU UNDER 66 YEARS OF AGE SHOULD BE OFFERED A HIV TEST IF NOT DONE IN LAST 6 MONTHS
☐ Liver Function Tests(LFT)	☒ HIV Antigen/Antibody (16-65yrs)
☐ Amylase	☐ Full Blood Count (FBC)
☐ Glucose (Plasma)(RBG,BG)	☐ INR (for Warfarin)
☐ Chloride and Bicarbonate	☐ APTT (for heparin)
☐ C Reactive Protein (CRP)	☐ INR / APTT for Heparin and Warfarin
☐ Blood Gases - For lab test only	☐ Coagulation Screen (CS)
☐ Calcium-Bone Profile	☐ DDimer Level (FDP)
☐ Magnesium (MG)	☐ Plasma Viscosity (PV)
☐ Uric Acid (Urate,UA)	☐ Erythrocyte Sedimentation Rate (ESR)
☐ Phosphate (PO4)	☐ Infectious Mononucleosis Screen (IM)
☐ Troponin I(TNI)	☐ Malaria Parasite Screen
SALICYLATE & PARACETAMOL	
CEREBROSPINAL FLUID (CSF) BIOCHEMISTRY	

Results

- January 2015 to May 2017
- 13,632 eligible patients admitted to the AMU.
- 8793 HIV tests were undertaken (64.5%) (Fig. 1)
- Testing was acceptable with almost no patient declining a HIV test
- Significantly more tests were requested by clinical support workers on the assessment area than by doctors on the admissions wards
- Testing rates fell significantly when HIV testing nurse was on leave
- 22 significant positive HIV tests
- 2 patients had previously tested positive but had disengaged from care several years earlier and had denied being HIV positive.
- HIV seropositivity 2.5/1000
- 2 of the partners tested were found to be HIV positive.

Characteristics of patients with positive HIV tests (22)	
Gender	Male: 12 Female: 10
Ethnicity	Black African: 10, Caucasian: 9, Asian: 3
Risk	Heterosexual: 19, MSM: 3
Median Age	38, range 21-65
Median CD4	119 cells/ul
CD4	<350: 80%, <200: 62%
Acute HIV infection	4 (3/4 antigen positive/antibody negative)
Missed opportunities for HIV testing	20%
Transferred to care	100%
On anti-retroviral treatment	19

Clinical presentation of patients (22)	
Opportunistic infection	PCP: 4. Disseminated TB: 1. Disseminated MAI: 1
Community acquired pneumonia	7
Acute HIV infection	Gandular fever type illness: 1. Self-limiting febrile illness: 3
Cellulitis	2
Sepsis	2
Soft tissue injury	1

Discussion

- 80% of patients were late presenters but in the majority of cases HIV was not suspected by the clinical team. It is unlikely the patients would have otherwise been offered a HIV test and this would have had a significant adverse effect on outcome
- Patients with acute infection presented with mild self limiting illness and would not otherwise have been offered a HIV test. All 4 patients promptly commenced ART.
- Sustaining HIV testing rates on the AMU is challenging. Our rate of 65% over more than 2 years compares favourably with other published reports.