

Accessibility to real time HIV avidity results along with good clinical acumen significantly enhances immediate identification of Primary HIV Infection (PHI) otherwise missed:

An audit of the identification of PHI from 3 large UK HIV centres

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Background

- PHI is defined as the first 6 months after infection
 - Associated with:
 - High level of infectivity
 - Significant, irreversible immune insult
- Identification of PHI provides opportunity
 - Prevention of onwards transmission
 - Therapeutic intervention
- Risk Factors
 - Symptoms suggestive of seroconversion
 - Incident bacterial STI
 - Unprotected penetrative sex, with high risk partner, in previous 3 months
- Laboratory Identification
 - Fourth generation HIV antibody tests
- Surveillance tests, such as avidity and detuned assays, indicate PHI
 - Serological testing algorithm for recent HIV seroconversion (STARHS)

Aims

- ① To compare the clinical and STARHS identification of PHI
- ② To investigate the use of risk factors to identify Primary HIV
- ③ To evaluate secondary prevention in those diagnosed with PHI

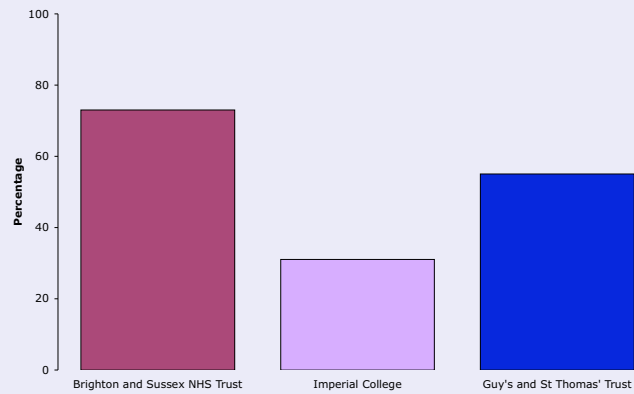
Methods

- Restrospective case note review
- Three UK centres
 - Brighton and Sussex NHS Trust
 - Imperial College, London
 - Guy's and St Thomas' NHS Trust, London
- All cases of recent HIV infection identified by STARHS Jan-Aug 2009
- Cases excluded
 - False positive STARHS results, identified by case note review
 - Individuals subsequently followed up elsewhere
- Data evaluated
 - Demographic data
 - Risk factors predicting PHI
 - Clinical diagnosis of PHI
 - Safe-sex counselling

Results

Rate of Primary HIV identification

- Overall 48% of PHI cases identified
- Brighton had highest rate of identification

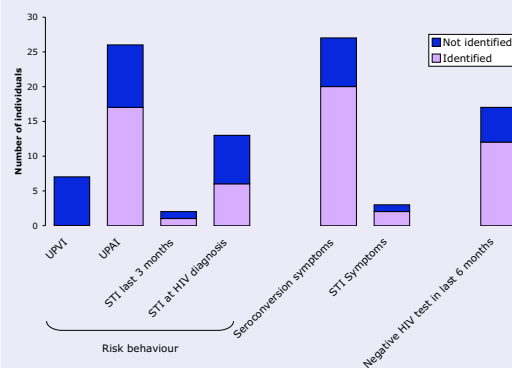


Interval between STARHS request and result

	Mean time (days)	Range (days)
Brighton and Sussex	3.7	1-8
Imperial College	21.15	14-38
Guy's and St Thomas'	42.37	21-105

- Interval least at Brighton and Sussex NHS Trust
- Correlates with increased rate of identification
- Brighton and Sussex:
 - All first positive antibody tests automatically sent to HPA
- Imperial College, and Guy's and St Thomas':
 - Sample sent after the confirmation antibody test result

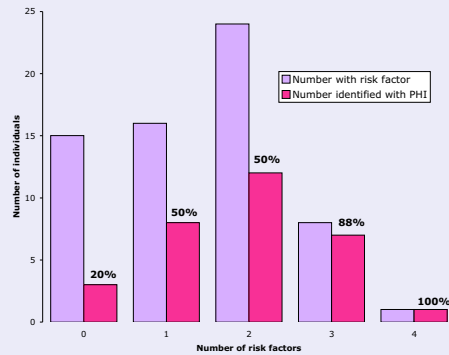
Primary HIV identification according to individual risk factors



- 1/3 with a negative test in the last 6 months not identified

Multiple risk factors increase likelihood of Primary HIV identification

- 77% had ≥ 1 risk factor
- Identification of PHI only enhanced if ≥ 3 risk factors



Safe Sex Counselling

- Safe sex discussed in 49/64(77%)
- PEPSE information given in 50/64(78%)
- Contact tracing documented in 39/64(61%)
- Of the 34 identified clinically with PHI, 11 (32%) were informed of increased risk of transmission

Discussion

Main findings

- Despite documented risk factors, PHI is not identified consistently even in the presence of recent negative HIV test
- Having STARHS result may improve the clinical diagnosis of PHI
 - Brighton has the highest levels of detection; one reason for this is the availability of STARHS
- PHI was most likely to be identified if:
 - Seroconversion symptoms present
 - More than two risk factors were present
- Insufficient counseling regarding increased infectivity

Recommendations

- 1 Increased awareness of PHI risk factors
 - Improve real time availability of STARHS results to focus clinical suspicion
- 2 Improved counselling to prevent the onward transmission of HIV

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