

# Ongoing Mononucleosis-like Illness – a clear indicator condition for HIV testing:

## Results from the HIDES 2 Study – Single Arm Extension

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### BACKGROUND

- Around 1 in 3 of the estimated 2.5 million people living with HIV across the European region are unaware of their HIV status<sup>1</sup>
- Approximately 50% of those diagnosed are late presenters (CD4 < 350)<sup>2</sup>
- Client-initiated testing strategies are not sufficient to identify people with HIV early enough to reduce the number of people presenting late for care
- Provider-initiated evidence based testing strategies are needed
- The identification of risk factors for HIV infection is unreliable as a screening tool for deciding when to offer a test<sup>3</sup>
- In London, primary care requests for a glandular fever screen underwent anonymous blinded testing for HIV and the prevalence was 1.3% (95% confidence interval 0.7 to 2.3%); 73% of the diagnoses had been missed at the primary care consultation<sup>4</sup>

### OBJECTIVES

It is cost-effective to perform an HIV test in people with a specific indicator condition (IC) that has an HIV prevalence exceeding 0.1%. Infectious mononucleosis-like illness (MON) is one such IC as demonstrated in the main HIDES 2 study (prevalence 5.3; [95% CI 3.7-6.9%]). This study is a 12 month single arm extension with the objective to assess whether there are European regional differences in the HIV prevalence in individuals presenting for care with MON.

### METHODS

Individuals aged 18-65 presenting with MON in clinics, both GPs and hospital departments, across Europe between January 2012 and June 2015 were included and screened for HIV.

### RESULTS

In September 2015, a total of 1569 persons presenting with MON were included from 16 clinics; 994 from East (63%; 6 clinics), 61 from West (4%. 3 clinics), 84 from South (5%, 5 clinics) and 430 from North (27%, 2 clinics). Of these 85 tested HIV+ (5.4% [95%CI 4.3-6.5%]). The lower limit of the 99% confidence interval exceeds 0.1% for all regions combined, East, North, West/South combined and West/South/North combined (**Table 1**). Numbers included or testing positive for HIV remained low in Western and Southern Europe. The prevalence of HIV varied from 2.3 in North to 6.7 in East (p=0.0034 comparing East versus North/West/South).

The positivity rate across all regions is however considerably higher than the 0.1% cut-off for cost-effectiveness of routine offer of HIV testing and highlights very effective HIV case finding.

The difference between regions might be explained by site of recruitment, whether in hospital departments or primary care.

### CONCLUSIONS

Infectious mononucleosis-like presentation can mimic acute HIV sero-conversion and has the highest positivity rate observed in the HIDES study, this IC in particular offers opportunities for earlier diagnosis. Interestingly when compared to other regions the sero-positivity rate was slightly less in the North which might in part be explained by site of recruitment and the patients being tested and their underlying prevalence of HIV. As little difference is observed between regions, the routine offer of an HIV test for patients presenting with MON should be urgently adopted into HIV testing and IC specialty guidelines across Europe.

Table 1

### Percentage testing HIV+ with lower 95% CL

Region	Total N	N HIV+	Prevalence (95% Confidence Limit)	Lower 99% confidence limit for estimated prevalence
<b>Total</b>	1569	85	5.4 (4.3 – 6.5)	3.9
<b>East</b>	994	67	6.7 (5.2 – 8.3)	4.7
<b>West</b>	61	2	3.3 (0 – 7.7)	0
<b>South</b>	84	6	7.1 (1.6 – 12.7)	0
<b>North</b>	430	10	2.3 (0.9 – 3.8)	0.5
<b>North/West/ South</b>	575	18	3.1 (1.7 – 4.6)	1.3
<b>West/South</b>	145	8	5.5 (1.8 – 9.2)	0.6

#### References:

1. European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2013; 2. A Mocroft, PLoS Med, September 2013; 3. Elmahdi R, Gerver SM, Gomez Guillen G, et al. Low levels of HIV test coverage in clinical settings in the U.K.: a systematic review of adherence to 2008 guidelines. Sex Transm Infect. 2014;90(2):119-24; 4. Hsu DT, Ruf M, O'Shea S, Costelloe S, Peck J, Tong CY. Diagnosing HIV infection in patients presenting with glandular fever-like illness in primary care: are we missing primary HIV infection? HIV Med. 2013;14(1):60-3.

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