Increasing number of lymphogranuloma venereum cases in Belgium: overview 2011-2014

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Background
The clinical sentinel surveillance of the sexually transmitted infections (STI) in Belgium exists since 2000. Since 2011, the STI surveillance is reinforced by nominating a National Reference Centre for STI (NRC-STI), offering since then the confirmation of L serovar *Chlamydia trachomatis* by qPCR on biological material of suspected cases. The surveillance data of confirmed cases is sent to the Institute of Public Health (IPH) of Belgium. The observation of an increasing number of confirmed lymphogranuloma venereum (LGV) cases since 2012 among male Chlamydia-patients triggered further analysis on patients characteristics.

Methods
The identification of the L serovar of *C. trachomatis* (CT) is done using a specific nucleic acid amplification assay on biological material of clinical suspected cases. The medical laboratories of the medical centres- and in particular Aids Reference Centres and STI clinics- are asked to send biological specimens of LGV suspected cases positive for *C. trachomatis* to the NRC-STI to confirm the presence of the *C. trachomatis* L type. Sociodemographic and clinical data of suspected and confirmed cases are collected.

Results
Between 2011 and 2014, a total of 148 LGV episodes within 134 patients were detected. The number of episodes remained stable in 2011 (N=21) and 2012 (N=23) but doubled (N=45) and almost tripled (N=59) in 2013 and 2014, respectively. Over the 4 years we observed the 148 episodes in 133 male patients and 1 transgender, the majority of them identified themselves as Men who have Sex with Men (MSM), being older (36-44 year) and HIV positive, with the exception of 7 HIV negative MSM in 2014. Forty nine episodes (33.1%) were registered with a STI-co-infection and 10 of them (6.8%) with HIV plus 2 other STI’s at the same time. Gonorrhoeae was the most frequently reported co-infection. Sex work or contact with a sex worker was reported by 4 patients in 2014. Nine patients (6.7%) experienced more than once (2 to 4 reinfections) LGV within 5 to 24 months since the last infection: 3 men had 2, 3 men had 3 and 1 men had 4 subsequent infections. (Table 1)

Table 1 Summary of the detected LGV episodes from 2011-2014

<table>
<thead>
<tr>
<th>Year of diagnosis</th>
<th>Number of LGV episodes</th>
<th>Mean age</th>
<th>Age min-max</th>
<th>Male</th>
<th>MSM</th>
<th>HIV+</th>
<th>Sex work</th>
<th>1st STI Coinfection</th>
<th>2nd STI coinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21</td>
<td>40</td>
<td>25-63</td>
<td>21</td>
<td>12</td>
<td>12</td>
<td></td>
<td>Chlamydia trachomatis</td>
<td>HIV</td>
</tr>
<tr>
<td>2012</td>
<td>23</td>
<td>40</td>
<td>27-52</td>
<td>23</td>
<td>9</td>
<td>1</td>
<td></td>
<td>Chlamydia trachomatis</td>
<td>HIV</td>
</tr>
<tr>
<td>2013</td>
<td>45</td>
<td>42</td>
<td>24-56</td>
<td>45</td>
<td>25</td>
<td>27</td>
<td></td>
<td>Chlamydia trachomatis</td>
<td>HIV</td>
</tr>
<tr>
<td>2014</td>
<td>59</td>
<td>38</td>
<td>21-61</td>
<td>58</td>
<td>4</td>
<td>35</td>
<td></td>
<td>Chlamydia trachomatis</td>
<td>HIV</td>
</tr>
<tr>
<td>2011-2014</td>
<td>148</td>
<td>40</td>
<td>21-63</td>
<td>147</td>
<td>79</td>
<td>4</td>
<td></td>
<td>Chlamydia trachomatis</td>
<td>HIV</td>
</tr>
</tbody>
</table>

Legend: MSM: men who have sex with men; HIV: human immunodeficiency virus; HBV: hepatitis B virus; HCV : hepatitis C virus
Note: We present here the numbers of the men who identified themselves as MSM, the others are reported as unknown. The number of known HIV infected patients are presented, the others are unknown, except for 7 HIV negative cases reported in 2014.

The majority of the samples were anal swab specimens (figure 1). The clinical symptoms remained unknown for the most of the cases until 2012.

Figure 1 Sample type analysed for LGV

Figure 2 Clinical symptoms

Conclusions:
Over the years 2011-2014 LGV was detected in men only, mainly MSM, HIV positive and belonging to an older age group. Other STI infections were also frequently detected.
The most worrying finding is the multiple reinfections. It is not clear whether the re-infections are persistent infections due to treatment failure, re-infection caused by (an) untreated partner(s), or new infections.
The increasing number of LGV cases over the years and especially the high number of re-infections calls for more prevention and information campaigns for this population at higher risk of LGV infection.

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