Update on human listeriosis in the United Kingdom.

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Contents

• Background
  – Disease
  – ACMSF September 2005
  – ACMSF June 2006

• Situation in 2006

• Ongoing work
Listeriosis

- First recognised in Cambridge in 1924
- Affects the unborn/newly delivered & the immunocompromised/elderly
- Primarily presents as abortion, septicaemia or CNS infections
- High case fatality rate
- Predominately foodborne
ACMSF September 2005

• Increase in England & Wales from 2001
  – sporadic cases
  – >59 years
  – bacteraemia in the absence of CNS involvement

• No statistically significant increase in Scotland or Northern Ireland
• ↓ incidence in England & Wales in 2005
  – non-significant decrease on 2004
  – significant increase on pre 2001
  – Same clinical presentation/demographics

• Statistically significant increase in Scotland
  – same clinical presentation/demographics as E&W

• No statistically significant increase in Northern Ireland
2006 (first six months)
## 2006 (first six months)

<table>
<thead>
<tr>
<th>Country</th>
<th>Preg</th>
<th>Non-preg</th>
<th>NP &gt;59yrs</th>
<th>NP59 Bacteraemia</th>
<th>NP59 CNS</th>
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<tbody>
<tr>
<td>England</td>
<td>10</td>
<td>49</td>
<td>41</td>
<td>23</td>
<td>6</td>
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<tr>
<td>Wales</td>
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<td>3</td>
<td>2</td>
<td>-</td>
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<tr>
<td>Scotland</td>
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<td>7</td>
<td>4</td>
<td>3</td>
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<td>1</td>
<td>0</td>
<td>-</td>
<td>-</td>
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</table>
2006 (first six months)

Similar clinical presentation

Similar demographics $\Rightarrow$ : similar epidemiology?
<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Preg</th>
<th>Incidence/M</th>
<th>Percent NP59</th>
<th>Percent NP59 Bact</th>
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</thead>
<tbody>
<tr>
<td>E Mids</td>
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<td>0.70</td>
<td>100</td>
<td>33</td>
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<td>67</td>
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<td>67</td>
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<td>N West</td>
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<td>0.88</td>
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<td>S East</td>
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<td>50</td>
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<tr>
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<td>100</td>
<td>33</td>
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<td>67</td>
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<td>York &amp; Hum</td>
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<td>40</td>
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</table>
HPA activity I

- Continued administration of:
  - Clinical questionnaire
  - Exposure questionnaire
    - Disease severity
    - Resource issues

- Confirmation and characterisation of human & food isolates
  - Serotyping
    - Molecular methods on a subset (resource implications)
HPA activity II

• Submission to FSA (research req. B14R0001; Dec ‘05)
  • Case-control study
    - Patient exposure
    - Food handling and storage practices
  • Subtyping developments
    - Pathogenicity markers
    - Additional rapid typing methods
  • Growth characteristics studies
HPA activity III

- Resubmission to FSA (research req. B14R0001; Nov ‘06)
  - Case-control study (preg. women, cancer patients & ≥60 yrs)
    - Patient exposure
    - Food handling and storage practices
Conclusions

• Continued shift in the epidemiology
  – E, W & S
  – Six months…

• Continued need for additional epidemiological and microbiological studies to investigate this increase.

• Need for a coordinated UK approach?
Acknowledgements

Health Protection Scotland

CDSC Northern Ireland