HEPATITIS A OUTBREAK: EPIDEMIOLOGY AND MANAGEMENT

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Notifiable infectious diseases in Belgium

Hepatitis A outbreak:
- Epidemiology
- Outbreak management
- Barriers and issues
- Recommendations
NOTIFIABLE INFECTIOUS DISEASES

> List of notifiable infectious diseases in 3 Belgian regions/communities
  • determined by Ministerial Decree

> Hep A included in list 3 regions/communities
  • Case definition:
    - Probable case: clinical criteria and epidemiological criteria
    - Confirmed case: clinical criteria and lab confirmation (serology or PCR)

> Reason for notification:
  • General:
    - Case and outbreak management → appropriate actions to prevent transmission or to control / stop outbreak
    - Surveillance: adjust policies (e.g. vaccination scheme)
  • Specific for Hep A:
    - Prompt notification is important to start actions and avoid transmission to others:
      > Vaccination of close contacts (≤ 2 weeks, including household, sexual contact)
      > Hygienic measures
      > Exclusion work/school (1 week after onset jaundice/T°)
EPIDEMIOLOGY
EPIDEMIOLOGY 2013-17: ABSOLUTE NUMBERS

> Walloon region

> Brussels region

> Flanders

Source: Epilab, Epistat – WIV-ISP, accessed 23 October 2017

23.11.17
Epidemiology: Flanders

Source: Epilab, Epistat – WIV-ISP, accessed 23 October 2017
EPIDEMIOLOGY 2013-17: GENDER DISTRIBUTION

> Flanders:

327 (previous years mean 84)

Source: Agentschap Zorg & Gezondheid
EPIDEMIOLOGY 2013-17: AGE DISTRIBUTION

> Flanders:

![Graph showing age distribution of hepatitis A notifications in Flanders from 2013 to 2017.](image)

- The graph illustrates the proportion of hepatitis A notifications per age group in Flanders from 2013 to 2017.
- The age groups are categorized as 0-9j, 10-19j, 20-29j, 30-39j, 40-49j, 50-59j, 60-69j, 70-79j, 80-89j, and 90j+.
- Each year is represented by a different color line, allowing for comparison over the years.

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23.11.17  
Agentschap Zorg en Gezondheid
EPIDEMIOLOGY 2013-17: AGE DISTRIBUTION IN MEN

> Flanders: men
EPIDEMIOLOGY 2013-17: FLANDERS, PER SOURCE

2014
- N=111
- Oro-anal sex 0%
- Food 1%
- Work 0%
- Contact patient 27%
- Travel 21%
- Unknown 51%

2015
- N=61
- Oro-anal sex 2%
- Food 0%
- Work 2%
- Contact patient 11%
- Travel 31%
- Unknown 54%

2016
- N=68
- Oro-anal sex 4%
- Food 1%
- Work 0%
- Contact patient 19%
- Travel 44%
- Unknown 32%

2017
- N=327
- Oro-anal sex 29%
- Food 1%
- Work 1%
- Contact patient 12%
- Travel 12%
- Unknown 45%
EPIDEMIOLOGY: FLANDERS - MSM

Cases with source = sexual contact

EWRS: Oct/16-Jan/17 ↑ HA cases among MSM Germany, UK, Spain, Italy

Previous years: 0 - max. 3/ year

Source: Flemish Agency of Care and Health, 2017

Gay Pride Brussels 29/4-17/05/2016
Gay Pride London 10-26/6/2016
Gay Pride Madrid 29/6-3/7/16
Gay Pride Amsterdam 23/7-7/8/16
Gay Pride Berlin 23/7 (nl. late June)

Gay pride Madrid 23/6-2/7/17
Gay pride Brussels 20/5/17
ACTIONS TAKEN DURING OUTBREAK

> Case management:
  • Food handlers → advice Federal Agency for Safety of Food Chain

> Sequencing:
  • From June 2016 onwards: hepatitis A outbreak in 17 EU/EEA countries, mainly among MSM → 3 co-circulating strains:
    > VRD_512_2016 (UK), V16-25801 (Germany), RIVM-HAV 16-090 (The Netherlands);
    > UK strain = 1st reported and most prevalent in (southern) Europe
  • N samples to NRC for genotyping: 61 Flanders, 4 Brussels, 1 Wallonia
    > 58% RIVM-HAV 16-090;
    > 33% UK strain [VRD_512_2016];
    > 2% Munich-Frankfurt-Berlin strain [V16-25801];
    > 8% genotype (I B)
    - Stop sequencing around April 2017, except if source unknown and male
    - Sequencing also confirmed transmission to broader population
ACTION TAKEN DURING OUTBREAK (2)

> Sensibilization

- Health professionals: letter to GP/vaccinators, updates via newsletter
  https://www.zorg-en-gezondheid.be/nieuwsflash-infectieziekten

- MSM: information, focus on sensibilization for hepatitis A vaccination
  (SENSOA, Ex Aequo, Arc en ciel Wallonie – before gay pride Brussels May 20th 2017)
  http://holebi.info/phpnews/kortnews.php?action=fullnews&id=15993
  http://zizo-online.be/article/11508

ACTION TAKEN DURING OUTBREAK (3)

International

- February 2017
  - Epidemic Intelligence Information System (EPIS - ECDC, via WIV): data sharing of samples with sequencing
  - Rapid Risk Assessment (ECDC): Belgium included
  - Early Warning Response System (ECDC)

- April 2017:
  - EPIET project: participation to descriptive part
  - Publication (ECDC, draft August 2017)
ISSUES AND BARRIERS

> Specific groups: difficult to reach!

> Source: taboo around sexual behavior!, privacy sphere!

> Logistics around case management (vaccine/ limited availability in Belgium of single dose hepatitis A for adult)

> Outreach vaccination on specific events: lack of capacity / budget (no specific vaccination programme focussing on MSM)
RECOMMENDATIONS
RECOMMENDATIONS

> General:

• Report 2008: study of effectiveness and cost effectiveness of possible vaccination strategies in Belgium for hepatitis A, based on the available epidemiological data.
• Belgium: not endemic for hepatitis A
• Recommendation: “Public funding for hepatitis A vaccination is recommended for children 1-12 y who travel to high-endemic countries”
> **May 2017: Recommendations ECDC**

- Where hepatitis A vaccination is not universally offered to MSM, the following groups could be prioritized for vaccination:
  - MSM living in areas of ongoing outbreaks
  - MSM travelling to destinations reporting outbreaks of hepatitis A among MSM
  - MSM that will attend WorldPride festival in Madrid, 23 June–2 July 2017 and are likely to engage in risky sexual practice
  - MSM at risk of severe outcomes from hepatitis A, for example those with hepatitis B and/or hepatitis C and those who inject drugs.

> **Most effective preventive measure to avoid future outbreaks in MSM population:**

- Vaccination MSM (Advice Belgian High Health Council, 2013)
- Raising awareness of preventive measures through information campaigns targeting MSM
Confirmed hepatitis A cases by strain and date of reporting (n=1400), 1 June 2016 – 31 May 2017, participating EU/EEA countries

Confirmed hepatitis A cases by strain and geographical distribution (n=1400), 1 June 2016 – 31 May 2017, participating EU/EEA countries