

## Rapid communications

# INCREASE IN HEPATITIS A CASES IN LATVIA, IN 2008, INCLUDING AN ONGOING OUTBREAK ASSOCIATED WITH A RESTAURANT IN RIGA – PRELIMINARY REPORT

J Perevoscikovs (jurij.perevoscikovs@sva.gov.lv)<sup>1</sup>, I Lucenko<sup>1</sup>, S Magone<sup>1</sup>, A Briļa<sup>1</sup>

1. Sabiedrības veselības aģentūra (State Agency Public Health Agency), Riga, Latvia

The Latvian Public Health Agency (PHA) is currently investigating an outbreak of at least 44 hepatitis A cases (as of 8 May) associated with a restaurant X in Riga, Latvia.

Seven of the infected people were employees of the restaurant; 37 were customers, mostly employees from the nearby office buildings who had lunch at this restaurant.

Hepatitis A is a disease under mandatory notification in Latvia. Upon receiving notification reports from clinicians, all cases of hepatitis A are investigated by epidemiologists from the PHA local branch. The investigation of the present outbreak was launched on 21 April when the routine interviews with hepatitis cases revealed that two were staff members and four were customers of the same restaurant in Riga. The investigation is still ongoing and the analysis of the information collected (including travel history, date and frequency of visit to the restaurant and food consumed) has not yet been completed. This paper gives only preliminary results and aims at drawing attention to the recent increase of hepatitis A cases in Latvia in general, and the ongoing outbreak in particular.

### Outbreak description

A probable case was defined as a person with a clinical picture compatible with hepatitis (discrete onset of symptoms and jaundice or elevated serum aminotransferase levels) who had visited the restaurant X in March or April 2008. A confirmed case was defined as a probable case with serum IgM antibodies against hepatitis A virus (IgM anti-HAV) positive. The case definitions used were based on the European Union case definitions [1].

Serum samples have been taken from all patients. As of 8 May, 43 confirmed cases and one probable case had been detected.

The preliminary epidemiological curve for these cases is shown in Figure 1.

The index case is believed to be an employee of the restaurant, whose onset of symptoms: nausea, vomiting, loss of appetite, was on 22 March, followed by jaundice and dark urine on 2 April. On 4 April the patient was hospitalised. No other risk factors (e.g. travel) or links with other cases have been identified.

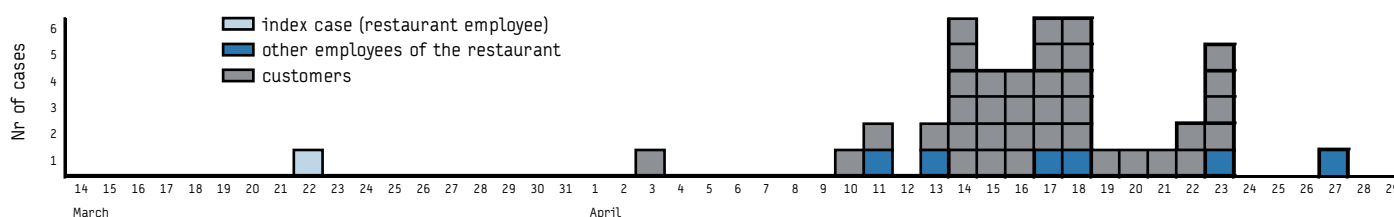
The remaining 43 cases reported onset of symptoms in April: one as early as 3 April, the rest between 10 and 27 April. All reported having visited the restaurant within the incubation period for hepatitis A. More detailed results will be available once all the data has been analysed.

The age and sex distribution of the cases is shown in Figure 2. More than two-thirds of the cases were aged between 18 and 29 years. The male to female ratio was 36 to 8, which could be explained by the fact that the restaurant has a TV screen showing sport channels and the majority of its customers are men. Forty cases were hospitalised.

Besides the 44 cases included in the outbreak investigation, the PHA has, to date, received unofficial information about two probable cases of hepatitis A in foreign visitors to this restaurant, one from Estonia and one from Lithuania. In response to an early warning message issued by Latvia, Germany reported one confirmed case in a patient who had been to Riga at the beginning of March, ate at the restaurant X, and subsequently developed jaundice between 7 and 14 April [communication from Robert Koch Institute, Berlin, Germany].

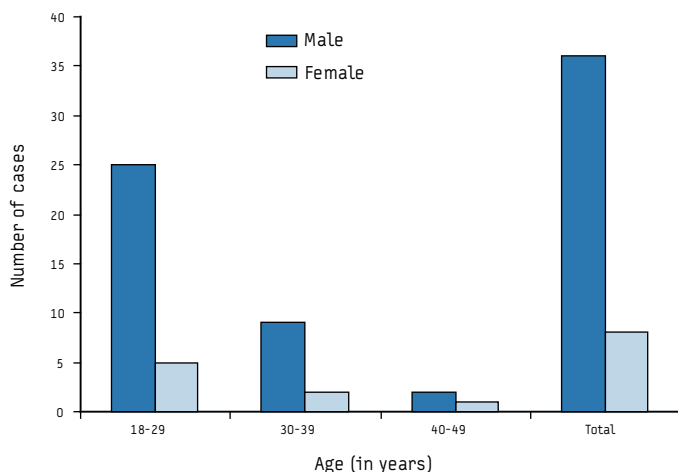
FIGURE 1

Cases of hepatitis A associated with an outbreak in a restaurant in Riga, Latvia, March-April 2008 (n=44, as of 8 May 2008)



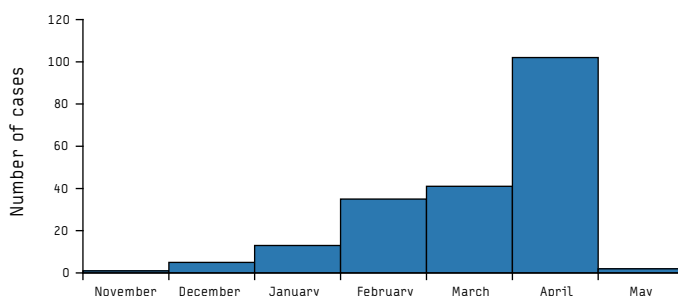
**FIGURE 2**

**Cases of hepatitis A associated with an outbreak in a restaurant in Riga, Latvia, March-April 2008 (n=44 as of 8 May 2008)**



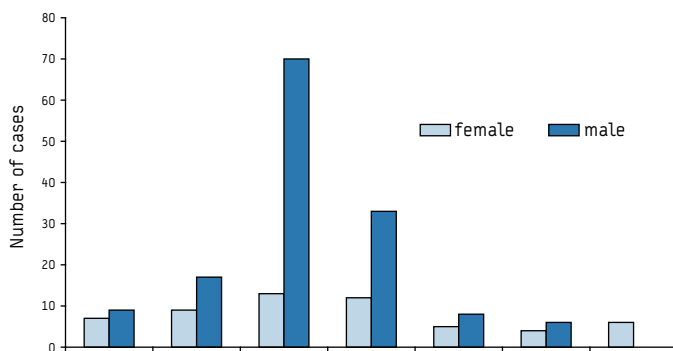
**FIGURE 3**

**Cases of hepatitis A in Latvia, notified in 2008, by month of onset (n=199, as of 8 May 2008)**



**FIGURE 4**

**Cases of hepatitis A in Latvia, notified in 2008, by age group and sex, (n=199, as of 8 May 2008)**



In addition, two secondary cases have been indirectly connected to the outbreak: they are family members of the possible index case.

#### Control measures

The epidemiological investigation is still ongoing. The Latvian Food and Veterinary Services were informed and the restaurant has been closed since 22 April for disinfection and other control measures including medical examination of the staff. It was advised that serum samples be taken from the restaurant employees. Environmental samples were also collected: two water samples were tested for hepatitis A virus (HAV) and two for bacteria, and ten surface samples were tested for bacteria only. All were negative.

The public was informed of the outbreak via various mass media, and those who were experiencing symptoms of disease and had attended this restaurant within the past month, were advised to see their general practitioner (GP) and to contact the epidemiologist on duty at the PHA. Increased hygiene among those exposed and medical observation of close contacts of the cases by their GPs were also recommended.

#### Hepatitis A situation in Latvia

An overall increase in hepatitis A cases has been observed in Latvia (especially in Riga and in the Riga region) since November 2007. Between 1 January and 8 May 2008, 124 confirmed and 75 probable cases of hepatitis A have been notified (Figure 3). This includes the 44 cases directly associated with the outbreak described in this paper as well as the two secondary cases identified among family contacts of the possible index case. For comparison, during the previous five years, an average of 26 cases was registered in the first four months of the year, with only four cases reported in 2007.

Among the 124 confirmed cases, 39 occurred in injecting drug users (IDUs), including 35 in Riga.

Of the cases reported in 2008, 56 were female, and 143 were male (Figure 4). This gender distribution was probably influenced by the relatively large proportion of IDUs (mostly male) among the cases, as well as the outbreak which affected mainly men.

The age of the cases ranged from four to 71 years, with a median age of 28.6 years (Figure 4).

The majority, 153 cases, occurred in inhabitants of Riga, 22 in the population of the wider Riga region, and the remaining 24 cases were distributed among three other cities and eight districts in Latvia which reported between one and five cases each.

#### Conclusion

The recent increase in hepatitis A cases in Latvia can be related to several outbreaks (a school in Riga, restaurant X in Riga), spread of infection among IDUs, and the increase of sporadic cases without any clear link. The modes of transmission involved might vary, including person-to-person transmission, contaminated food, possibly also contaminated water and sexual transmission.

In the outbreak described in this paper, the source or the mode of transmission has not yet been determined, and the investigations are still underway.

Also, it is possible that more cases connected to this outbreak will be reported, despite the fact that the restaurant has been

closed for control measures since 22 April. Taking into account the incubation period for hepatitis A (average 28–30 days, range 15–50 days), new cases connected to the restaurant could be expected until the end of May. There may also be further cases reported in foreigners because the restaurant is situated in an area frequented by tourists. An early warning message was therefore issued to alert other countries to the possibility of imported cases of hepatitis A associated with travel to Latvia.

## References

1. Commission Decision of 19 March 2002 laying down case definitions for reporting communicable diseases to the Community network under Decision No 2119/98/EC of the European Parliament and of the Council (2002/253/EC). Available from: [http://eur-lex.europa.eu/pri/en/oj/dat/2002/l\\_086/l\\_08620020403en00440062.pdf](http://eur-lex.europa.eu/pri/en/oj/dat/2002/l_086/l_08620020403en00440062.pdf)

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