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HEPATITIS A IN POLAND IN 2012

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ABSTRACT

AIM. The aim of the article is evaluation of the epidemiological situation of hepatitis A in Poland in 2012.

MATERIALS AND METHODS. Assessment of epidemiological situation of hepatitis A was based on results from analysis of the annual bulletins: "Infectious diseases and poisonings in Poland in 2012", "Vaccinations in Poland in 2012", reports from individual cases and epidemiological investigations of outbreaks linked to hepatitis A, sent by Epidemiological Departments in Sanitary Epidemiological Stations to the Department of Epidemiology at NIPH-NIH.

RESULTS. In Poland, 71 cases of hepatitis A were registered in 2012. The incidence of 0.17/ per 100,000 inhabitants was slightly higher than previous year. The incidence of hepatitis A ranged from 0.08/100 000 in Łódzkie and Podlaskie to 0.35/100 000 in Śląskie. The incidence of hepatitis A in men and women was at an approximate level and amounted to 0.19 and 0.18/100 000 respectively. The peak of incidence was recorded during the summer and autumn-winter months. In 2012 imported cases constituted 52.1% of all cases of hepatitis A. There were five outbreaks involving of 11 registered cases in 2012.

CONCLUSIONS. In 2012, there was a slight increase in the incidence of hepatitis A in compared with the previous year. However, apart from that there were no significant changes in the epidemiological situation of hepatitis A. In Poland there is still very low endemicity for hepatitis A. Decreased incidence and the small number of people vaccinated against hepatitis A facilitates the accumulation of a fairly numerous population of persons susceptible to infection which is connected with the possibility to increase the number of cases of hepatitis A. Despite the fact that the current epidemiological situation of hepatitis A in Poland is good, the disease still requires monitoring and analysis within the framework of epidemiological surveillance system.

Key words: *hepatitis A, epidemiology, public health, Poland, 2012*

The purpose of the study was assessment of the epidemiological situation of hepatitis A in Poland in 2012.

MATERIAL AND METHODS

The assessment of epidemiological situation of hepatitis A in Poland in 2012 was based on the results of data analysis: the annual bulletin "Infectious diseases and poisonings in Poland in 2012" and "Vaccinations in Poland in 2012" (Czarkowski MP et al., Warsaw, National Institute of Public Health-National Institute of Hygiene (NIPH-NIH) and Chief Sanitary Inspectorate (CSI)), as well as data from individual cases and epidemiological investigations of outbreaks of hepatitis A, sent by the Sanitary-Epidemiological Stations and data from Demographic Research Department of the Central Statistical Office.

RESULTS

In 2012, 71 cases of hepatitis A were recorded, of which 68 persons required hospitalization. The incidence per population of 100,000 people amounted to 0.18/100,000 (Tab. I). In 2011, cases of hepatitis A constituted 1.8 % of all the hepatitis cases in Poland.

The cases of hepatitis A occurred in 15 provinces.

As in the previous year, in the Świętokrzyskie province no cases of this disease were registered. In two provinces cases of hepatitis A were associated with outbreaks - in the province Kujawsko-Pomorskie (100% of cases) and in the province Małopolskie (77.7% of cases). In comparison to the 2011 year, the incidence was increase in the following provinces: Dolnośląskie, Lubelskie, Lubuskie, Łódzkie, Małopolskie, Opolskie,

Table I. Hepatitis A in Poland in 2011-2012. Number of cases, incidence per 100 000 population and hospitalization by province

Provinces	2011			2012		
	Number of cases	Incidence	Number of hospitalizations (%)	Number of cases	Incidence	Number of hospitalizations (%)
Poland	65	0.17	62 (95.4)	71	0.18	68 (95.8)
Dolnośląskie	2	0.07	2 (100)	7	0.24	7 (100)
Kujawsko-Pomorskie	4	0.19	4 (100)	4	0.19	4 (100)
Lubelskie	-	-	-	3	0.14	3 (100)
Lubuskie	-	-	-	1	0.1	1 (100)
Łódzkie	-	-	-	2	0.08	2 (100)
Małopolskie	7	0.21	7 (100)	9	0.27	9 (100)
Mazowieckie	11	0.21	9 (81.8)	7	0.13	7 (100)
Opolskie	1	0.1	1 (100)	2	0.2	2 (100)
Podkarpackie	3	0.14	3 (100)	7	0.33	7 (100)
Podlaskie	-	-	-	1	0.08	1 (100)
Pomorskie	3	0.13	3 (100)	3	0.13	3 (100)
Śląskie	24	0.52	24 (100)	16	0.35	13 (81.3)
Świętokrzyskie	-	-	-	-	-	-
Warmińsko-Mazurskie	-	-	-	3	0.21	3 (100)
Wielkopolskie	7	0.2	7 (100)	3	0.09	3 (100)
Zachodniopomorskie	3	0.17	2 (66.7)	3	0.17	3 (100)

Podkarpackie, Podlaskie, Warmińsko-Mazurskie, while a decline occurred in two provinces: Śląskie and Wielkopolskie. The incidence of hepatitis A ranged from 0.08/100 000 in Łódzkie and Podlaskie to 0.35/100 000 in Śląskie (Tab. I).

The incidence in the age groups was similar to previous years and was highest in the age groups 20 to 29 years, 25 to 29 years, 30 to 34 years. The highest incidence was recorded in the age group of 30 to 34 years and amounted to 0.34/100 000. In the age groups 0-4 years, 5-9 years decline in incidence in comparison with the previous year was observed.

The incidence of hepatitis A in men and women was at an approximate level and amounted to 0.19 and 0.18/100,000 respectively. In 2012, incidence of hepatitis A among men was highest in the age group of 30 to 34 years (0.56/100 000) and 40 to 44 years (0.41/100 000). Among women the peak of incidences occurred in the age groups of 20 to 24 years (0.60/100,000) and 25 to 29 years (0.44/100,000) (Tab. II) (Fig. 1).

The most cases of hepatitis A occurred in summer, autumn and winter months. In 2012, hepatitis A infections have continued to show seasonality as in 2008-2010. The relatively high number of cases of hepatitis A in these months correspond with occurred imported

Table II. Hepatitis A in Poland 2011-2012. Nuber of cases, incidence per 100 000 population and by age, sex

Age group (years)	2011						2012					
	Male		Female		Total		Male		Female		Total	
	Number of cases	Incidence										
0-4	1	0.09	2	0.2	3	0.15	1	0.09	1	0.1	2	0.1
5-9	-	-	4	0.45	4	0.22	-	-	-	-	-	-
10-14	1	0.1	1	0.1	2	0.1	1	0.1	1	0.11	2	0.11
15-19	1	0.08	-	-	1	0.04	-	-	3	0.27	3	0.13
20-24	5	0.35	2	0.14	7	0.25	5	0.36	8	0.6	13	0.48
25-29	8	0.48	3	0.19	11	0.34	5	0.31	7	0.44	12	0.38
30-34	5	0.31	3	0.19	8	0.26	9	0.56	3	0.19	12	0.38
35-39	6	0.42	4	0.29	10	0.36	4	0.27	1	0.07	5	0.17
40-44	3	0.25	4	0.34	7	0.29	5	0.41	2	0.17	7	0.29
45-49	1	0.08	-	-	1	0.04	2	0.17	2	0.17	4	0.17
50-54	3	0.21	4	0.27	7	0.24	2	0.15	-	-	2	0.07
55-59	1	0.07	2	0.13	3	0.1	1	0.07	5	0.33	6	0.21
60-64	-	-	1	0.08	1	0.04	-	-	-	-	-	-
65-74	-	-	-	-	-	-	-	-	1	0.06	1	0.04
75+	-	-	-	-	-	-	1	0.12	1	0.06	2	0.08
Total	35	0.19	30	0.15	65	0.17	36	0.19	35	0.18	71	0.18

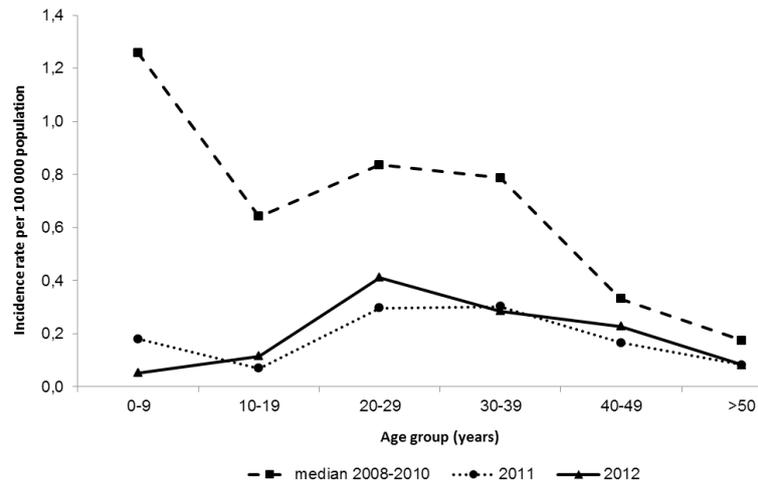


Fig. 1. Hepatitis A in Poland in 2008-2012. Incidence per 100 000 population by age

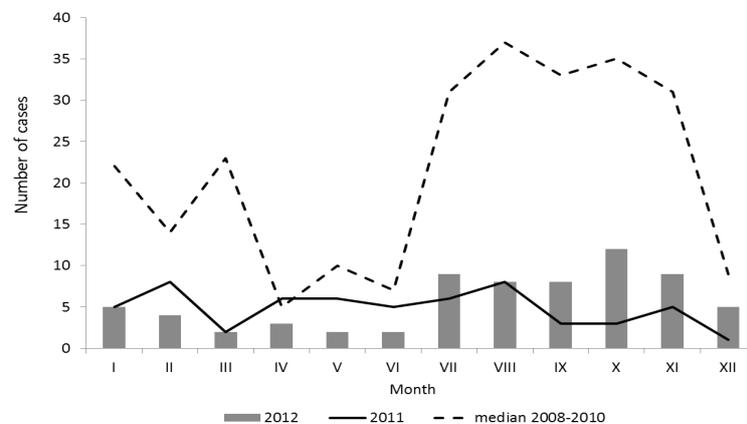


Fig. 2. Hepatitis A in Poland in 2008-2012. Distribution of cases by month

Table III. Number and percentage of persons vaccinated in Poland against hepatitis A in the years 2011-2012, by voivodeship

Voivodeship	2011		2012	
	Number of vaccinated	%	Number of vaccinated	%
Poland	45 490	100	39 362	100
Dolnośląskie	2891	6.4	2781	7.1
Kujawsko-Pomorskie	1142	2.5	1715	4.4
Lubelskie	588	1.3	589	1.5
Lubuskie	447	1.0	385	1.0
Łódzkie	1983	4.4	1728	4.4
Małopolskie	4517	9.9	4161	10.6
Mazowieckie	18753	41.2	13991	35.5
Opolskie	532	1.2	461	1.2
Podkarpackie	964	2.1	851	2.2
Podlaskie	460	1.0	478	1.2
Pomorskie	3651	8.0	3447	8.8
Śląskie	4089	9.0	3706	9.4
Świętokrzyskie	455	1.0	422	1.1
Warmińsko-Mazurskie	633	1.4	831	2.1
Wielkopolskie	2780	6.1	2421	6.2
Zachodniopomorskie	1605	3.5	1395	3.5

cases among persons returning from holidays in highly endemic countries (Fig. 2).

In 2012, the number of people vaccinated against hepatitis A decreased compared to the previous year. In 2012, in total 39 362 of people were vaccinated against hepatitis A. Just as in the previous years, the largest number of persons was vaccinated in Mazowieckie (35.5 % of all persons vaccinated against hepatitis A in Poland) (Tab. III).

In 2012, 52.1% of all cases of hepatitis A were imported. It follows from the epidemiological interviews that most of the patients before infection stayed in areas of high or medium endemic. The most frequently mentioned target source country was Egypt (Tab. IV).

In 2012, there were five outbreaks of hepatitis A that occurred in the two provinces (3 outbreaks in Kujawsko-Pomorskie, 2 outbreaks in Małopolskie), in which 11 persons became ill.

SUMMARY AND CONCLUSIONS

1. In 2012, there was a slight increase in the incidence of hepatitis A in compared with the previous year.

Table IV. Number of imported hepatitis A cases in Poland in 2012 by country of exposure

Continent	Country	Number of cases
Africa n=24	Egypt	17
	Morocco	1
	Senegal, Mali	1
	Turkey	2
	Tunisia	3
Asia n=2	India	1
	Kazakhstan	1
South America	Ecuador	2
Europe n=9	Bulgaria	5
	Germany	1
	Greece	1
	Hungary	1
	Russian Federation	1
Total		37

However, apart from that there were no significant changes in the epidemiological situation of hepatitis A. In Poland there is still very low endemicity for hepatitis A, characterized by low incidence (0.18/100 000), as well as the relatively high number of cases among people in the aged 20 to 39 years, the occurrence of local outbreaks and high percentage of imported cases.

- The number of persons vaccinated against hepatitis A has been steadily decreasing since 2010, and cannot substantially influence the epidemiological situa-

tion in country. As in previous years a high share of imported cases of hepatitis A was observed. The most of the imported cases of hepatitis A associated with traveling to Egypt, which is a country with high endemicity for hepatitis A. Therefore, it is important to inform people planning to travel to Egypt about available vaccinations and the necessity comply with the rules of hygiene.

- Decreased incidence and the small number of people vaccinated against hepatitis A facilitates the accumulation of a fairly numerous population of persons susceptible to infection which is connected with the possibility to increase the number of cases of hepatitis A. Therefore, the epidemiological situation of hepatitis A requires further monitoring and analysis within the framework of epidemiological surveillance system.

Received: 03.04.2014

Accepted for publication: 07.04.2014

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