

## National summary of neonatal hepatitis B immunisation – 2012/2013



### Background

This report summarises uptake and timeliness of the first three doses of hepatitis B immunisation and trends in babies who were born to hepatitis B positive mothers during 2013 and were notified to Public Health Wales Health Protection Team. Uptake and timeliness of the fourth dose of hepatitis B immunisation in babies born to hepatitis B positive mothers in 2012 is also presented.

The data in this report are taken from the All Wales Neonatal Hepatitis B immunisation database. The database was developed by Public Health Wales to assist the Public Health Wales Health Protection Team in the monitoring and follow up of hepatitis B immunisation in babies born to hepatitis B positive mothers. The database also allows the Public Health Wales Communicable Disease Surveillance Centre to monitor uptake and timeliness of hepatitis B vaccination in neonates and young children born to infected mothers. Data contained in this report were extracted on 1 May 2014.

**Table 1. Uptake and timeliness of neonatal hepatitis B immunisation in Wales, babies born to hepatitis B positive mothers and resident in Wales during 2012 and 2013**

	Year of birth	Babies requiring immunisation (n)	Immunised		Immunised within recommended interval	
			(n)	(%)	(n)	(%)
<b>HBIG<sup>1,2</sup></b>	2013	10	10	100	10	100
<b>Dose 1<sup>2</sup></b>		60	60	100	60	100
<b>Dose 2<sup>3</sup></b>		60	60	100	33	55
<b>Dose 3<sup>4</sup></b>		60	58	97	37	64
<b>Dose 4<sup>5</sup></b>	2012	42 <sup>6</sup>	38	90	23	61

<sup>1</sup> Not required for all neonates

<sup>2</sup> Recommended to be given on the day of birth or the next day

<sup>3</sup> Recommended interval: within 25 - 36 days after dose 1

<sup>4</sup> Recommended interval: within 25 - 36 days after dose 2

<sup>5</sup> Recommended interval: within 334 – 396 days of birth

<sup>6</sup> Since the 2011/2012 national summary report, one baby was lost to follow up for reasons other than moving away from Wales and is not included in this report

For more information on neonatal hepatitis B immunisations consult 'The Green Book' at <http://immunisation.dh.gov.uk/category/the-green-book/>

## Findings

1. During 2013, 63 babies born to hepatitis B mothers were reported to the Health Protection Team in comparison to 50 babies in 2012. Three babies who were born during 2013 are not included in this report, because they moved away from Wales.
2. Hepatitis B immunoglobulin (HBIG) was indicated for 17% (10/60) of neonates born to hepatitis B positive mothers in Wales during 2013, a decrease from 30% in 2012. As with 2012, HBIG was delivered to 100% of these neonates and all received it on their day of birth or the next day (Table 1).
3. Uptake of the first dose of hepatitis B immunisation was 100% in 2013, the same as in 2012, with all neonates receiving their first dose on their day of birth or the next day (Table 1).
4. Uptake of the second dose of hepatitis B immunisation was 100% in 2013, also the same as in 2012. Fifty-five per cent of the babies received their second dose between 25 and 36 days after their first dose, a decrease from 70% in 2012. Forty-five per cent of babies had a period of longer than 36 days between their first and second doses, an increase from 30% in 2012 (Table 1).
5. Uptake of the third dose of hepatitis B immunisation was 97% compared to 98% in 2012. Sixty-four per cent of the babies received their third dose between 25 and 36 days after their second dose, an increase from 48% in 2012. Thirty four per cent of babies had a period of longer than 36 days between their second and third doses, a decrease from 50% in 2012 and 2% had a period of shorter than 25 days between their second and third doses (Table 1).
6. Uptake of the fourth dose of hepatitis B immunisation was 90% in babies born to hepatitis B positive mothers in 2012, a decrease from 97% in 2011. As with 2011, 61% of the babies received their fourth dose between 334 and 396 days of birth and 39% received the dose later than 396 days from birth.

## Discussion

This is the third annual report of uptake of hepatitis B immunisation in neonates born to hepatitis B positive mothers in Wales. The report contains information on the first three doses of hepatitis B vaccination for babies born during 2013 as well as on the fourth dose of the schedule for babies born during 2012. All of these babies should have received the first, second and third doses of hepatitis B vaccine if born during 2013 and the fourth dose of the vaccine if born during 2012, by the time data for this report were extracted (1 May 2014).

These data show that all of the babies born to hepatitis B positive mothers, who were resident in Wales during 2013, and notified to Public Health Wales received HBIG (if indicated) and their first two doses of the hepatitis B immunisation schedule. Similar to 2012, three per cent of babies did not receive their third dose of the vaccine. In comparison to 2012, there was a decrease seen in the proportion of babies who received their second dose of hepatitis B immunisation within the recommended timely interval. However, an improvement was observed in the proportion of babies born during 2013 who received the third dose within 25 – 36 days following dose two, compared to babies born in 2012.

A lower proportion of babies born during 2012 received their fourth dose of the schedule compared to the babies born in 2011. However, the same trends were observed in the proportion of babies receiving the fourth dose on time for babies born during 2011 and 2012.