Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge (NQF # 0475)

Website: [http://www.qualityforum.org/Measures_List.aspx](http://www.qualityforum.org/Measures_List.aspx)

Overview
The measure requires each hospital/birthing facility to measure their administration of a dose of hepatitis B vaccine to all infants born in their hospital/birthing facility prior to discharge for a specific time period (e.g. one calendar year). Hospitals are required to assess infants whose parents refused vaccination for exclusion from the coverage estimate.

- **Numerator:**
  - **Numerator Statement:** The number of live newborn infants administered hepatitis B vaccine prior to discharge from the hospital/birthing facility (*"birth dose"* of hepatitis B vaccine).
  - **Numerator Time Window:** One calendar year
  - **Numerator Details:** For each hospital or birthing facility, the number of live newborn infants, during a calendar year, that received a dose of hepatitis B vaccine prior to hospital/birthing facility discharge (or within 1 month of life, if the infant had an extended hospital stay). Acceptable data sources include: pharmacy records, vaccine consent forms, medication administration records, claims data, nurses notes, electronic medical records, or other available records.
  - **ICD codes**
    | ICD-9                                      | ICD-10*                                |
    |--------------------------------------------|----------------------------------------|
    | o V05.3 - Need for prophylactic vaccination and inoculation against viral hepatitis | o Z23                                   |
    |                                            | o Z23.9955 - Prophylactic administration of vaccine against other diseases |
    |                                            | o Z23.9959 - Other vaccination or inoculation |

  * ICD-9 code V05.3 converts to ICD-10 code Z23 (type of immunization given will be identified by the procedure code—effective October 1, 2013. The procedure code for prophylactic vaccination and inoculation against viral hepatitis is unknown. Suggest the use of ICD-10 code Z23.9955 or Z23.9959).

  - **CPT Administration Codes:** 90744 (Hepatitis B vaccine) & 90471 (Immunization administration code)

- **Denominator:**
  - **Denominator Statement:** The number of live newborn infants born at the hospital/birthing facility during the reporting window
  - **Denominator Time Window:** One calendar year
  - **Denominator Details:** The number of live births at the hospital during one calendar year can be determined from a variety of sources, including the paper or electronic patient records, claims data, nursery birth records, or other available records. ICD-10 codes can be used. Stillborn deliveries are not included in the definition of the MEASURE.
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<th>ICD-9</th>
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**V27: Outcome of Delivery**

- V27.0 Single live born
- V27.2 Twins, both live born
- V27.3 Twins, one live born and one stillborn
- V27.5 Other multiple birth, all live born
- V27.6 Other multiple birth, some live born

**V30-V3x: Live born Infants according to type of birth**

- V30.0 Single live born
- V31.0 Twin mate, live born
- V34.0 Other multiple births, all mates live born
- V36.0 Other multiple births, mates live- and stillborn

- z37.0 Single live birth
- z37.2 Twins, both live born
- z37.3 Twins, one live born and one stillborn
- z37.50 Multiple births, unspecified, all live born
- z37.51 Triplets, all live born
- z37.52 Quadruplets, all live born
- z37.53 Quintuplets, all live born
- z37.54 Sextuplets, all live born
- z37.59 Other multiple births, all live born
- z37.60 Multiple births, unspecified, some live born
- z37.61 Triplets, some live born
- z37.62 Quadruplets, some live born
- z37.63 Quintuplets, some live born
- z37.64 Sextuplets, some live born
- z37.69 Other multiple births, some live born
- z38.00 Single live born infant, delivered vaginally
- z38.01 Single live born infant, delivered by cesarean
- z38.1 Single live born infant, born outside hospital
- z38.2 Single live born infant, unspecified as to place of birth
- z38.30 Twin live born infant, delivered vaginally
- z38.31 Twin live born infant, delivered by cesarean
- z38.4 Twin live born infant, born outside hospital
- z38.5 Twin live born infant, unspecified as to place of birth
- z38.61 Triplet live born infant, delivered vaginally
- z38.62 Triplet live born infant, delivered by cesarean
- z38.63 Quadruplet live born infant, delivered vaginally
- z38.64 Quadruplet live born infant, delivered by cesarean
- z38.65 Quintuplet live born infant, delivered vaginally
- z38.66 Quintuplet live born infant, delivered by cesarean
- z38.68 Other multiple live born infant, delivered vaginally
- z38.69 Other multiple live born infant, delivered
The results of this measure will identify hepatitis B vaccine coverage excluding infants whose
parent(s)/guardian(s) refused hepatitis B vaccine before hospital or facility discharge (or by 1 month of age if
the stay is prolonged).

**Denominator Exclusions:** Determine number of live newborn infants born at the hospital/birthing facility
whose parent/guardian refused hepatitis B birth dose and exclude from the denominator.

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<tbody>
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<td>V64.05 Vaccination not carried out because of caregiver (parent/guardian) refusal</td>
<td>z28.82 Immunization not carried out because of caregiver refusal</td>
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**Denominator Exclusion Details:** Subtract from the number of infants discharged from the
hospital/birthing facility, the number of infants born at the facility during one calendar year, whose
parent/guardian refused administration of a birth dose of hepatitis B vaccine before discharge from the
hospital/birthing facility. Information on exclusions might come from a variety of sources, including
vaccine consent forms, clinical notes, and medication administration records. For ICD-10, no billing
codes exist for vaccine refusal; therefore ICD-10 codes in the Z28 series should be used to document
vaccine refusal.

Newborn infants who are transferred to another facility should be counted in the calculation of hepatitis B vaccine coverage among live births at the newborn’s original birthing hospital/facility.

**Data Sources:**
- Pharmacy Records
- Vaccine Consent Forms
- Medication Administration Records
- Administrative Claims Data
- Nurse’s Notes
- Electronic Medical Records
- Other available records

**Calculation of Birth Dose Coverage:**

a) Determine the number of live newborn infants at each hospital/birthing facility during one
calendar year
b) Determine the number of live newborn infants born at the same hospital/birthing facility during
the same calendar year who received a dose of hepatitis B vaccine before hospital discharge (or
by 1 month of age if not yet discharged)
c) Determine the number of infants with parental/guardian refusal of a hepatitis B birth dose;
d) Divide the number of live newborns born at the hospital/birthing facility during the
specified time period who received a dose of hepatitis B vaccine before hospital discharge (or
within 1 month if not yet discharged) (b), by the number of live newborns at the same
hospital/birthing facility during the same time period (a) minus those who were not vaccinated
because of parent/guardian refusal of hepatitis B birth dose (c)