

Vermont Oxford Network  
National Quality Forum Measure 0483  
Proportion of Infants 22 to 29 Weeks Gestation Screened for  
Retinopathy of Prematurity (ROP)

Measure Description:

Proportion of infants with gestational age between 22 and 29 completed weeks who were screened for ROP.

Population:

Any infant who is born at the reporting hospital and whose gestational age is between 22 weeks, 0 days and 29 weeks, 6 days should be included, regardless of where in the hospital the infant receives care.

Any outborn infant who is admitted to any location in the reporting hospital within 28 days of birth, without first having gone home, and whose gestational age is between 22 weeks, 0 days and 29 weeks, 6 days should be included, regardless of where in the hospital the infant receives care.

Exclusions:

1. Infants outside the gestational age range of 22 to 29 weeks.
2. Outborn infants admitted more than 28 days after birth.
3. Outborn infants who have been home prior to admission.
4. Infants not admitted to the NICU.

Measure Stratification:

Stratification by gestational age in completed weeks may be useful.

Calculation Instructions

1. Identify the *population of eligible infants*: all infants whose gestational age is between 22 weeks, 0 days, and 29 weeks, 6 days, who are born at or admitted to the hospital within 28 days of birth without having been discharged home and who are still hospitalized at the postnatal age at which the first retinal screening exam is recommended by the AAP guidelines.
  - a. Determine the infant's postnatal age at discharge. This is calculated in days as date of discharge minus date of admission +1. Divide by 7 to determine the postnatal age at discharge in weeks.
  - b. Compare each infant's postnatal age at discharge to the appropriate row in the following table adapted from: American Academy of Pediatrics, Section on Ophthalmology, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus. "Screening examination of premature infants for retinopathy of prematurity." *Pediatrics* 2013; 131(1):189-195.

Vermont Oxford Network  
National Quality Forum Measure 0483  
Proportion of Infants 22 to 29 Weeks Gestation Screened for  
Retinopathy of Prematurity (ROP)

Timing of First Eye Examination Based on Gestational Age at Birth

| Gestational age at birth<br>(completed weeks) | Postnatal Age (weeks)<br>at initial ROP screening exam |
|---|--|
| 22  | 9  |
| 23  | 8  |
| 24  | 7  |
| 25  | 6  |
| 26  | 5  |
| 27  | 4  |
| 28  | 4  |
| 29  | 4  |

- c. If the infant’s postnatal age at discharge is greater than or equal to the postnatal age for initial ROP screening from the table, the infant is classified as “still hospitalized at the time of recommended initial ROP screening.”
2. Among the population of eligible infants:
- a. Count the number of infants in the population of eligible infants. This number is the denominator for the measure: *DENOM*.
  - b. Count the number of infants who had a retinal examination prior to discharge. This number is the numerator for the measure: *NUM*.
  - c. The measure is calculated as:

$$NUM / DENOM$$

This measure represents the proportion of infants 22 to 29 weeks gestation who were hospitalized at the age when ROP screening is recommended who were screened prior to discharge.

- d. To stratify by gestational age, limit the counts and calculation to infants in the gestational age for the range 22-29 weeks.

Vermont Oxford Network  
National Quality Forum Measure 0483  
Proportion of Infants 22 to 29 Weeks Gestation Screened for  
Retinopathy of Prematurity (ROP)

3. Definitions:

Data item definitions are from the Vermont Oxford Network Manual of Operations, available on-line at: <https://public.vtoxford.org/manuals-forms/>

a. Gestational Age:

Record the best estimate of gestational age in weeks (Item 2a) and days (Item 2b) using the following hierarchy:

- (1) Obstetrical measures based on last menstrual period, obstetrical parameters, and prenatal ultrasound as recorded in the maternal chart.
- (2) Neonatologist's estimate based on physical criteria, neurologic examination, combined physical and gestational age exam (Ballard or Dubowitz), or examination of the lens

The best estimate should be recorded in weeks and days. In instances when the best estimate of gestational age is an exact number of weeks, enter the number of weeks in the space provided for weeks and enter "0" in the space provided for days. Do not leave the number of days blank.

b. Retinal Examination Done

Check "**Yes**" if an indirect ophthalmologic examination for retinopathy of prematurity (ROP) was performed at any time.

Check "**No**" if an indirect ophthalmologic examination for ROP was not performed.

Note: "at any time" refers to any time prior to discharge or transfer.

Vermont Oxford Network Contact:

Erika Edwards, Director of Data Science, 802-865-4814 ext246