



Measure Fact Sheet – The AHRQ-CMS Pediatric Quality Measures Program (PQMP)

Measure: Episiotomy (Overuse)

Measure Developer: Pediatric Measurement Center of Excellence (PMCoE)

Numerator	Denominator	Exclusions	Data Source(s)
Patients who underwent an episiotomy.	All patients, regardless of age, who gave birth vaginally (without shoulder dystocia), during a 12-month period.	Babies with shoulder dystocia.	Electronic medical record.

Measure Importance

Numerous studies have shown that use of episiotomy on an as-needed rather than routine basis results in considerable reduction in maternal morbidity.¹ Reported complications of episiotomy include bleeding, infection, abscess formation, and wound dehiscence (bursting). Despite this evidence, the rate of episiotomy varies among individual clinicians, practice sites, and health systems.²

Evidence Base for the Focus of the Measure

- This measure is supported by findings from an Agency for Healthcare Research and Quality (AHRQ)-supported systematic evidence review on the use of episiotomies² and incorporation of evidence from the review and other sources in the 2006 clinical guidelines from the American College of Obstetricians and Gynecologists.¹

Advantage of the Measure

This measure is specified to be calculated using data from electronic health records (EHRs), using the National Quality Forum Quality Data Model.

Levels of Aggregation Applicable to the Measure

- The measure is intended for aggregation and comparison at the State, regional, payment model, health plan, hospital, provider group, and individual clinician levels.³



Reliability and Validity of the Measure

- Reliability of the measure varies by numbers of births annually.⁴ Reliability is 0.77 for clinicians with an average of 60 deliveries in a year and 0.34 for clinicians with the minimum annual number of deliveries needed to calculate the measure (10 deliveries annually).
- The face validity of the measure was assessed using expert and public opinion.⁵

Measure Testing

- The reliability of this measure was tested using 2010 data from the EHR system of an urban, tertiary-care-level hospital. The measure was calculated for the 128 physicians that had a minimum of 10 deliveries in that year.
- The measure's feasibility was tested in that same location, in a suburban community hospital, and in an urban public hospital.

Selected Results from Tests of the Measure

- Based on the experiences of the 128 physicians, the mean performance rate is 0.05. The range of the performance rate is 0.40 (0.0 – 0.40). The performance rate for the measure and the variation in performance indicate there are opportunities for quality improvement.

Issues to Consider

- Missing data or ambiguous information stored in a provider's EHR could lead to calculation errors and low performance on the measure.
- Use of the measure is limited to sites that use EHRs for their medical records.

Related Measures

- This new measure aligns with a measure developed by the Christiana Care Health Services in conjunction with the National Perinatal Information Center/Quality Analytic Services, but it also has the potential to capture clinician-level rates of episiotomies.
- For more information about other CHIPRA PQMP measures related to prenatal/perinatal performance, go to <http://www.ahrq.gov/policymakers/chipra/factsheets/index.html>.

More Information

- AHRQ: CHIPRAqualitymeasures@ahrq.hhs.gov
- PMCOE: Ramesh Sachdeva, MD, Principal Investigator: rsachdeva@aap.org; Lisa Krams: lkrams@aap.org
- Coming soon: Link to measure details on the AHRQ Web site.

For more information about the PQMP, visit www.ahrq.gov/CHIPRA.

References

¹American College of Obstetricians and Gynecologists (ACOG). ACOG Practice Bulletin. Episiotomy. Clinical Management Guidelines for Obstetrician-Gynecologists. *Obstet Gynecol.* 2006 Apr;107 (4):957-62.

²Viswanathan M, Hartmann K, Palmieri R, et al. The use of episiotomy in obstetrical care: a systematic review. Summary, Evidence Report/Technology Assessment No. 112. (Prepared by the RTI-UNC Evidence-based Practice Center, under Contract No. 290-02-0016.) AHRQ Publication No. 05-E009-1. Rockville, MD: Agency for Healthcare Research and Quality. May 2005.

³The Children's Health Insurance Program Reauthorization Act required measures developed under this program to "permit comparison of quality and data at a State, plan, and provider level." The measure developer identified the intended levels of aggregation and comparison as reported here.

⁴Reliability assessed using a beta-binomial model of signal to noise ratio.

⁵The expert panel that reviewed the measure comprised 24 members, with representation from measure methodologists, patient advocacy groups, and the following clinical specialties: anesthesiology, family practice, geriatric medicine, maternal fetal medicine, neonatology, nurse midwife, obstetrics and gynecology, and perinatal nursing. Eleven of 13 expert panel members that responded to a survey on validity agreed or strongly agreed that the scores obtained from the measure as specified will accurately differentiate quality across providers. A panel of consumer, purchaser, and patient representatives also reviewed the measure, and the measure developers received input from a 30-day public comment period.

The Children's Health Insurance Program Reauthorization Act (CHIPRA) called for the establishment of a Pediatric Quality Measures Program (PQMP) as a followup to identifying the initial core set of children's health care quality measures. This fact sheet was produced by the Agency for Healthcare Research and Quality (AHRQ), based on information provided by the AHRQ-CMS CHIPRA Pediatric Measurement Center of Excellence at the Medical College of Wisconsin. A listing of all submitted PQMP Centers of Excellence measures can be found at www.ahrq.gov/chipra. All measures are publicly available for noncommercial use.



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