

PSI 30: Obstetric Trauma – Vaginal Delivery without Instrument	
Origin: Review of an AHRQ PSI (3)	
Dimension	Description
Description of Specific Aspects of Patient Safety	Obstetric trauma during delivery is often preventable. The percentage of deliveries involving third and fourth degree lacerations is a useful quality indicator of obstetrical care and can assist in reducing the morbidity from extensive perineal tears.
Aim of the PSI	This PSI is intended to flag cases of potentially preventable trauma during vaginal delivery without instrument.
Level of Determination of Patient Safety	Safety is assessed at the aggregated patient level.
Source(s)	<p>An overlapping subset of this indicator (third- or fourth-degree perineal laceration) has been adopted by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) as a core performance measure for “pregnancy and related conditions” (PR-25). Based on expert consensus panels, McKesson Health Solutions included the JCAHO indicator in its Care Enhance Resource Management Systems, Quality Profiler Complications Measures Module. Fourth-Degree Laceration, one of the codes mapped to this PSI, was included as one component of a broader indicator (“obstetrical complications”) in AHRQs original HCUP Quality Indicator (3).</p> <p>Modified this PSI is included in the Danish National Board of Health’s Obstetric Indicators.</p>
Extent of Clinically Testing	<p>The project team developing the AHRQ PSI conducted extensive empirical analyses on this PSI. The team concluded that this PSI generally performs well on several different dimensions, including reliability, bias, relatedness of indicators, and persistence over time (3).</p> <p>Administrative data from community hospitals in 16 US states with reliable race/ethnicity measures using the AHRQ PSIs was analysed to determine whether racial and ethnic differences in patient safety events disappear when income (a proxy for socioeconomic status) is taken into account. Obstetric trauma – Vaginal delivery without instrument occurs significantly less often among African American, Non Hispanic and Hispanic than among white. Where as Vaginal delivery without instrument occurs a little more often among Asian and Pacific Islander than among White. This was explained due to the fact that race is a risk factor for severe perineal laceration after vaginal delivery, and black woman are at lower risk than whites and Asian women are at the highest risk. It was concluded that: ”The AHRQ PSIs are a broad screen for potential safety events that point to needed improvement in the quality of care for specific populations” (7).</p> <p>AHRQ is determining the feasibility and practicality in a project</p>

	concerning validation of selected AHRQ Quality Indicators (8). The results suggest that this PSI may be useful as a measure of patient safety (3;7)
Evidence of Clinically use of Standards	No evidence of clinically use of standards was found.
PSI category	Theme Related PSI: "Obstetrics".
	Cases of obstetric trauma (third or fourth degree lacerations) per 1000 vaginal deliveries without instrument. Obstetric trauma includes uterine rupture, fracture of pelvis, including coccyx, laceration or haematoma of cervix, vagina, vulva, perineum and anus
Numerator Description	Discharges with ICD-9-CM code for third and fourth degree obstetric trauma in any diagnosis or procedure field.
Denominator Description	All vaginal delivery discharges. Exclude instrument-assisted delivery.
Data Source	Administrative data: hospital morbidity data collection.
Identifying the institutional context	Complications to delivery can have an ongoing burden on the hospital system in increased length of stays and readmissions making this PSI theme important in clinical, quality and economic policies.
Care Setting	The PSI applies for high quality maternity care.
Professionals Responsible for Health Care	Midwives and doctors.
Lowest Level of Health Care Delivery Addressed	Individual clinical department.
Allowance for Patient Factors	Risk adjustment for age and comorbidity categories.
Stratification by Vulnerable Populations	No stratification given.
Standard of Comparison	No specific standards given.
Scoring	AHRQ has PSI software for scoring.