

NSQIP

Timothy Klatt, MD

The American College of Surgeons National Surgical Quality Improvement Program (NSQIP) is a nationally validated, risk-adjusted, case-mix-adjusted, outcomes-based program that measures and seeks to improve the quality of surgical care, including gynecologic surgical care.¹ Unlike the majority of publicly reported metrics, NSQIP does not depend on billing codes. Billing codes were not created for use in quality improvement activities and use of these can introduce ambiguity into metrics. NSQIP overcomes many of these weaknesses by evaluating data directly from the medical record. Each member hospital assigns a trained Surgical Clinical Reviewer to collect data on patients, beginning with the preoperative period and continuing through the 30th postoperative day. This provides a more complete picture of patient care because at least half of all complications, including readmissions and surgical site infections, occur after discharge.¹ For example, in the case of colectomies, one of the most common procedures performed by surgeons, 50% of cardiac arrests and 67% of infections occur after the patient leaves the hospital.²

As of 2021, NSQIP included these gynecology procedures: hysterectomy, myomectomy and pelvic reconstruction procedures, such as anterior and posterior colporrhaphy.

Definitions of Metrics ³		
	Summary of Inclusions	Summary of Exclusions
Urinary tract infection*	Symptomatic urinary tract infection developed within 30 days after the primary procedure.	UTIs present at the time of surgery
Readmission*	Unplanned readmissions before midnight of postoperative day 30	Readmissions intended prior to or during the primary procedure as part of the plan of care
Surgical site infection**	Superficial incisional site infections, Deep incisional site infections, organ/space site infections. Infections at each of these sites are also tracked as a separate metric.	Infection present upon entry of the operating room, postoperative oral thrush
Vein thrombosis requiring therapy**	New diagnosis of thrombus within the venous system (superficial or deep) which requires treatment within 30 days of the primary procedure	Known venous thrombosis present preoperatively

Unplanned return to operating room*	Return to the operating room that was not planned before or during the primary procedure.	<ol style="list-style-type: none"> 1. Cases with pre- or intraoperative documentation that return to the operating room was part of the intended plan of care. 2. Cases where return to the operating room is for standard maintenance or removal of a temporizing measure placed during the primary procedure.
Sepsis (and Shock)**	Sepsis defined by detailed criteria	Sepsis present on arrival to the operating room
Cardiac events*	Cardiac arrest requiring CPR, myocardial infarction: either occurring intraoperatively or within 30 days postoperatively	
Unplanned Intubation*	All unplanned intubations for any reason/cause, including, but not limited to, those for refractory hypotension, cardiac arrest and inability to protect airway. Includes placement of an endotracheal tube, laryngeal mask airway, nasotracheal tube, etc., and ventilator support within 30 days of the primary procedure	
Ventilator needed > 48 hours**	Total cumulative duration of ventilator-assisted respirations greater than 48 hours during the postoperative hospitalization and any subsequent hospitalizations within 30 days of primary procedure	<ol style="list-style-type: none"> 1. Patients intubated and receiving mechanical ventilator support upon entry of the operating room 2. Unplanned intubation intraoperatively prior to the initiation of anesthesia for the primary procedure
<p>* Assigned for each separate occurrence within the 30-day postoperative period</p> <p>** Assigned only once for each primary procedure</p>		

References

¹ <https://www.facs.org/quality-programs/data-and-registries/acs-nsqip/about-acs-nsqip/>. Accessed 11/30/2023.

² Wick, Elizabeth C., et al. "Readmission Rates and Cost Following Colorectal Surgery." *Diseases of the Colon & Rectum*. 54(12):1475-1479; Dec. 2011.

³ American College of Surgeons. National Surgical Quality Improvement Program Operations Manual 1/2021. <https://www.facs.org/quality-programs/acs-nsqip>. Accessed 2/15/21. Full access requires hospital NSQIP membership.

