



Clinical Analytics That Drive Quality Care

Increasing Adoption of In-Use Oxytocin Guidelines Improves Neonatal Outcomes

In 2013, a large healthcare organization sought to investigate the impact of several areas of clinical assessment and practice related to oxytocin infusions and FHR monitoring on neonatal outcomes and the cesarean delivery rate. The organization wanted to determine the level of compliance with standards of practice and whether that alignment had an impact on patient outcomes. With these goals in mind, the organization deployed The Sullivan Group's **RSQ® Assessment - Obstetrics** to facilitate this case review and system analysis.



14,000 +
Induction Cases
Analyzed

Superior Patient Outcomes			
	↓ 34% Lower NICU Admissions		↓ 24% Fewer 1 Minute Apgars < 7
	↓ 16% Lower Cesarean Delivery Rate		↓ 46% Fewer 5 Minute Apgars < 7

Compliance with guidelines was associated with improved performance on neonatal outcomes measured above
Study printed in the *American Journal of Obstetrics and Gynecology*, April 2015¹

Committed to Quality Care

In 2007, physicians from the organization published a best practice checklist for the use of oxytocin during labor. The organization, with 110 labor and delivery units, subsequently implemented the checklist as a guideline of care for delivery within their hospitals. Several years after implementing the in-use checklist in their hospitals, the organization wanted to understand:

- The rate and level of compliance with the in-use checklist
- Whether use of the in-use checklist impacted neonatal outcomes and rate of cesarean delivery

With this goal, the organization pursued a solution that would:

- Aggregate data from over 14,000 cases
- Comply with HIPAA standards
- Deliver automated reporting to leadership on progress and outcomes
- Analyze processes to confirm best practices and inform process improvement



Clinical Analytics that Impact Outcomes

The organization's Patient Safety Organization implemented the **RSQ® Assessment - Obstetrics**, an easily deployed HIPAA compliant online database tool that is pre-configured for clinical assessments. This created the framework that allowed the chart reviews to be performed in a standardized manner, ensured the quality of the data and established a repository for future benchmarking.

Key performance indicators were defined, including:

- Compliance with utilization of pre-use and in-use oxytocin checklists
- Compliance with continuous electronic monitoring of fetal heart rate (FHR) and uterine activity
- Compliance with the appropriate intervention of reducing the oxytocin upon identification of FHR or uterine contraction patterns that fail to meet specific defined criteria.

Outcomes measured included:

- Rate of admission to the NICU
- Rate of cesarean sections
- Apgars at 1 and 5 minutes

Measured Outcomes	Results
NICU Admissions	↓ 34%
Cesarean Delivery Rate	↓ 16%
1 Minute Apgars < 7	↓ 24%
5 Minute Apgars < 7	↓ 46%

The organization engaged nurses with experience in fetal heart rate monitoring to review over 14,000 induction cases from 2013. All data was submitted directly from these chart reviewers into the **RSQ® Assessment - Obstetrics**, which walks the reviewer through each chart audit in an efficient and standardized manner.

The data is aggregated by the system and real-time reports are immediately available online so that leadership can track the progress of the auditing process and validate guidelines of care.

Striving for Continuous Improvement

The **RSQ® Assessment - Obstetrics** framework and process allows the integrated health system to continuously drive improvement in key performance indicators that influence patient outcomes.

¹Clark SL, Meyers JA, Frye DK, et al. Recognition and response to electronic fetal heart rate patterns: impact on newborn outcomes and primary cesarean delivery rate in women undergoing induction of labor. *Am J Obstet Gynecol* 2015;212:494.e1-6.

