



The Afterbirth of the Electronic Delivery Log



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ABSTRACT

DUHS continues to be a leader in the implementation of the Perinatal Electronic Medical Record (EMR). The delivery log provides obstetrical caregivers with information to be utilized in a variety of ways. Historically, the delivery room RN was held responsible for documenting accurate and complete maternal and newborn information. Information that was manually entered into the log was retrieved from various intrapartum forms. Information was often illegible and not always entered into the log in a timely fashion leaving the log, incomplete in some cases.

With the evolution of the Perinatal EMR in 2003, we are able to customize an existing form within our Perinatal EMR and create an electronic delivery log to meet the needs of the Health System. Data are extracted throughout the intrapartum period and populate fields in the log. The platform is an Excel format that readily supports ad-hoc queries. This enables us to support Health System trend analysis and business practices in both high and low risk settings, the academic medical center, and the community hospital. The electronic log supports statistical analysis of delivery data such as infection rates, c/s rates as well as departmental and administrative statistics. In turn, we are able to share statistics with our obstetrical providers including local health departments. Duplicate documentation is eliminated and collaborative, interdisciplinary documentation is achieved.

In 2008, we are taking the electronic delivery log to the next step. Log generation is now scheduled at pre-defined intervals to meet the clinical needs at Duke Hospital. Log distribution is achieved thru secure protected health information network (PHI). Distribution takes places via email or hardcopy. This enhancement increases visibility and utilization of clinical data to support research, business practices and decreases potential for error.

IMPLEMENTATION PHASE I

- Core planning team comprised of major stakeholders
- Targeted education plan
- Charge Nurse generates the log and validates data every shift :
 - accuracy of delivery totals
 - accuracy of patient record (ie prenatal care provider, birth weight, etc)
- Incorporated into departmental Performance Improvement Plan
- Leadership and staff nurses involved in chart audits and feedback to individual end-users
- Adherence to documentation standards linked to pay and performance

Delivery Date	Delivery Time	DOB	Race	County	Date of Birth	G/P	GA	Blood Type/Rhesus	Type of Delivery	Anesthesia	Repeat	Maternal Complications	Baby ID	Weight	Sex	APGAR 1/5/10	ATT MD/Del	PreNet RN Care
1/8/2003	11:30 AM	11/11/74			11/11/74	3/1	39/4		Cesarean	Epidural	F	None	9990 000000	3714	M	8 9	Brancato, Leo MD	Duke Schut
1/8/2003	4:10 PM	11/20/92			11/20/92	3/1	38/1		Vaginal	IV Narcotics	1 true knot at given 20' prior to delivery. Narcocin 0.3 given to baby.	9992 03800	9991	2725	M	9 9	Brancato, Leo MD	Duke Schut
7/17/2008	2:39:00 AM	11/4/1900	Black/Durham		11/4/1900	7/2	38/1	O POSITIVE (RHS)	Vaginal	Epidural			63000 1/1901	3530	M	8 8	Neves, Angel MD	Duke Health System



RESULTS

- Duplicate documentation eliminated
- Decreased potential for data error
- Standardize size and enhanced readability
- Improved process and ROI for professional and technical billing
- Streamlined birth certificate workflow process
- Increased staff satisfaction related to streamlined approach to documentation and increased time at bedside
- Increased provider satisfaction related to accuracy of individual provider experiences
- Positive budget impact related to decrease in indirect nursing hours
- Supports all quadrants of the Women's Services balanced scorecard
- Platform change in 2009 to support a increasing complexity of health system reporting

IMPLEMENTATION PHASE II

- Eliminated manual generation of delivery log
- Charge Nurse validates data every shift :
 - accuracy of delivery totals
 - accuracy of patient record (ie prenatal care provider, birth weight, etc)
- Scheduled, generated, and distributed q shift:
 - Hardcopy printed on clinical unit
 - Hardcopy printed to Women's Anesthesia office for use with workflow validation
 - Email copy to unit leadership, birth certificate clerk and coding & billing for processing
 - Email copy to department research nurses to support and streamline ongoing studies

Clinical Quality/ Internal Business	Customer Service
Work Culture	Finance