Improving Communication & Documentation: The Electronic Newborn Summary

The Problem
- In FY2015, 4680 newborns were discharged from the BIDMC Mother-Baby Unit (MBU). More than 80% (3754/4680) were cared for by BIDMC hospitalists, who do not provide post-discharge care.
- Communication between the BIDMC inpatient team and the primary outpatient pediatrician is paramount to the safe and smooth transition to the medical home.
- Thorough documentation includes information from the mother’s medical, prenatal, and delivery history, and events after birth. It is completed by multiple providers in multiple locations, and offers a mechanism for patient care handoff and transition between units.
- At project outset, documentation was completed on a hand-written carbon copy Newborn Summary (NBS) that is hand-delivered to the primary pediatrician by the parent. Primary care pediatricians report that it is frequently incomplete and often difficult to read.

Aim / Goal
Increase Newborn Summary completion rate from <50% to >90% by transforming it into an electronic living document that can be modified by all providers caring for the infant and readily conveyed to the primary pediatrician between February 2014 and December of 2015.

Interventions
- Assembled a multidisciplinary team: L&D, MBU, Neonatology, IS and Healthcare Quality (HCQ)
- Mapped current process of paper newborn documentation:
  - Current electronic systems were evaluated to determine feasibility
  - Provider Order Entry (POE) was identified as a unique place to house the NBS
  - Nursing and medical staff in L&D, Mother Baby Unit and NICU already use this platform
  - Provided framework for ‘living document’ that could be completed by multiple users
  - Developed a novel section of POE and a template to replicate the paper NBS
  - Trialed multiple iterations and tested each with staff, incorporated feedback and made revisions
  - Launched the Electronic Newborn Summary on July 13, 2015

Lessons Learned
- Staff readily adopted new process without major obstacles: noted to be intuitive and user-friendly
- NBS has standardized nursing handoff
- Resounding positive feedback from outpatient pediatricians about improved clarity of document
- Team recognized areas where decision tree could be documented and implemented changes
  - e.g. unknown maternal HIV status prompts nurse to offer rapid testing & document plan
- Identified ways for automatic calculations (GA, bilirubin, ROM) to increase efficiency of rounding
- Identified benefit of timely identification of infants at risk for complications & ability to alert staff
  - Hypoglycemia triggers, sepsis risk assessment, MRSA colonization

Next Steps
- Launch transfer checklist features of NBS (Spring 2016)
- Begin automatic fax feature to Pediatricians (Spring 2016)
- Maintain pediatrician provider database (Care Connection)

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