PQCNC 2014

Making North Carolina the best place to give birth and be born!
Accomplishing the Mission

• Create value through time limited statewide perinatal QI projects
  – Best evidence, reduce variation
  – Partnership with patients and families
  – Resource optimization

• Projects led by Expert Teams with Members from 27 hospitals
At the PQCNC Table

• Patients and Family Members
• Perinatal providers (62 Hospitals)
  – Nurses (Peds, NICU, & OB)
  – Practitioners
  – Midwives
  – Doctors (OB, MFM, Neos, Peds, FP)
  – Hospital Administrators
• DPH
• Payers (Medicaid, BCBSNC)
• ORHCC
• State Legislators
• NC Hospital Association
• CCNC
PQCNC Initiatives

• 39 Weeks (41 Hospitals)
• PQCNC CLABSI (13 Hospitals)
• Support for Intended Vaginal Birth (SIVB) (32 Hospitals)
• Exclusive Human Milk in the Nursery (33 Hospitals)
• Exclusive Human Milk in the NICU (11 Hospitals)
• NCLABSI (13 States and 181 NICUs)
NC CS Rates

CS % of all Deliveries

PQCNC 39 Week
PQCNC “SIVB”
Reduce Primary CS Rate

* US NVSS CS rate reduced 0.3%
** NC CS Rate reduced 4.5%
For All of NC…Since 2009

- In 2010 there were 367 C-sections avoided
- In 2011 there were 1565 C-sections avoided.
- In 2012 there were 1309 C-sections avoided.
- In 2013 there were 1428 C-sections avoided.
- Estimate of cost savings: $18,676,000
- Does not include pro fees, NICU cost, extended hospitalization for babies, or the cost for future C-sections for mothers with a prior C-section.
PQCNC CLABSI Rates

71% Reduction in NHSN CLABSI Rates

0.8 CLABSI/1000 Line Days


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Impact of NICU CLABSI Prevention in NC 2009-2013

• Avoided 547 CLABSIIs
• Saved 85 lives
• Avoided $9.12M in hospital charges
Impact of PQCNC CLABSI
2014 PQCNC Initiatives

• Patient and Family Partnerships (9 Hospitals)
• Neonatal Abstinence Syndrome (NAS) (Nursery and NICU in 29 Hospitals)
• Conservative Management of Preeclampsia (CMOP) (21 Hospitals)
• Screening for Critical Congenital Heart Disease (CCHD)
Patient and Family Engagement

- Create a multidisciplinary, hospital based standardized approach to the recruitment, training, and partnering of patients and families as in QI efforts
- One patient/family member join and attend each initiative QI meeting
- Process in place for educating providers/staff on importance of patient & family perspective
DMA Neonatal Abstinence Syndrome (NAS) Rates

% DMA NAS Births

240% Increase in DMA NAS Rates

2008 2009 2010 2011 2012

% DMA NAS Births

0 0.2 0.4 0.6 0.8 1 1.2 1.4
PQCNC NAS Initiative

• Action Plan from 24 member Expert Team
• Snapshot data from all centers
• 29 hospital teams
  – 65% of deliveries in NC
• Facility Variation re NAS
  – Breastfeeding allowed
  – NAS guidelines in place (78%), followed (55%)
  – NICU transfer (72%)
PQCNC NAS Initiative

• Each hospital develop & execute standardized NAS protocol 100% of the time
• Data system developed to follow key process & outcome metrics
• Examining DC home with weaning medications, transfer to NICU, LOS, weight gain and readmission rates
• Through Sept 2014
PQCNC NAS Initiative

• MA data suggests that standardizing approach can reduce LOS from 40 to 19 days
  – No increase in readmits

• If reduce LOS 7 days, no increase in readmits & reduce NICU transfers to 35%
  – 1428 infants x 7 days = 9996 Hospital Days
  – 7197 are NICU days
  – Potential savings $7.2M annually
PQCNC Conservative Management of Preeclampsia (CMOP)

- Hypertensive disorders of pregnancy occur in 12-22% of pregnancies
- Responsible for approximately 17% of maternal mortality in the US
- Leading contributor to premature birth with significant neonatal morbidity and mortality
PQCNC Conservative Management of Preeclampsia (CMOP)

- 12 Member Expert Team created Action Plan
- 21 hospitals currently enrolled
- Resources including new ACOG Practice Guideline, CCNC guideline, CMQCC toolkit
- Partnered with NCHA Quality Center
PQCNC Conservative Management of Preeclampsia (CMOP)

• Elimination of unnecessary deliveries of preeclampsia cases < 37 weeks
• Proper diagnosis of preeclampsia in all cases
• Antenatal steroids administered to every mother with preeclampsia at risk for preterm delivery
• Education of every mother DCd with preeclampsia
PQCNC Conservative Management of Preeclampsia (CMOP)

• In 2012 were 6021 women with Gestational HTN
• Estimate CMOP will impact 4094 women
  – Assumption: 50% induced unnecessarily prior to 37 weeks (2047)
  – 38% will go on to CS (777)
  – Potential to avoid 777 CS statewide
  – CS rate statewide to 29.8%
  – New cost savings $3.2M annually
PQCNC Conservative Management of Preeclampsia (CMOP)

- ANS reduces mortality of prematurity
- Reduces rates of RDS, IVH & NEC in preterms
- Tracked in new BC
- ANS administration for Gestational HTN
  - Now 20% for preeclamptic moms <32 weeks
  - Aim of 80%
- ANS to an additional 150 infants < 32 weeks
  - Increase survival 10%: 15 lives saved/year
  - Reduction other morbidity
Screening for Critical Congenital Heart Disease

- Screening passed as law in NC GA 2013
- DPH unable to support data system
- PQCNC will develop data system and QI project to support legislation
- Will identify 60 infants/year in NC
- Save 1-2 lives per year
- Cost savings $1.2M annually
Funding PQCNC

- PQCNC annual budget $750K
  - Maternal Block Grant; ORHCC/BCBSNC
- ROI 2009-2013 based on 39 Weeks, SIVB, CLABSI:
  - Savings: $27,796,000
  - ROI: 745% overall, to state approximately 1250%
  - Does not include Breastfeeding and EHM in NICU
- PQCNC received $350K in each of last 2 budget years
Funding PQCNC

• We are requesting that the $350K annual funding level continue

• Additional funding: Grants, payers, hospitals

• Anticipated savings with current projects
  – $11.6M annually
  – Does not account for impact of increasing ANS administration rates

• ROI
  – 1546% overall; approximately 2154% to the state
PQCNC
Committed to making North Carolina the best place to give birth and to be born!
- 370 non-indicated deliveries moved to > 39 Weeks
- 769 total deliveries shifted to > 39 Weeks
- Avoided 58 NICU admits, 253 CS
- Cost avoidance (NICU & OB) $2.4M
PQCNC Support for Intended Vaginal Birth (Reduction of Rate of NTSV CS)

Phase I

Phase II/III
EHM NCCC: Exclusive Maternal Milk

EHM NCCC: Infants Fed Exclusive Maternal Milk Thru 28 Days

34% Increase in VLBW Infants

% Infants With Exclusive Maternal Milk

Intervention Months

UCL

LCL

0.6313

0.3710

0.1107
EHM Well: Exclusive Maternal Milk
All

EHM Well: Exclusive Breastfeeding

20% Increase in Exclusive Breastfeeding
PQCNC Conservative Management of Preeclampsia (CMOP)

• Elevation of BP which may progress to proteinuria, edema, liver, hematologic and neurologic complications

• Impact
  – Cardiovascular effects (HTN)
  – Neurologic effects (seizures, stroke, brain swelling)
  – Renal effects (Kidney failure)
  – Fetal effects (abruption, poor growth, death)
Comparing NC CS Rates