Improved family-centered care at lower cost: Rooming-in to treat neonatal abstinence syndrome

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Neonatal Abstinence Syndrome

Presentation
- Syndrome of drug withdrawal in neonates
- Spectrum of signs of and symptoms

Diagnosis/Course
- History
- Toxicology screens
- Environmental care
- Medication
Triple Aim

- Population Health
- Experience of Care
- Per Capita Cost
NAS in NH/VT

Higher rates 2012: 1.9% vs 0.6% nationally

Neonatal Abstinence Syndrome (779.5)
NH Infant Discharges 2000-2012

In 2015, 10% of newborns at CHaD opioid exposed in utero

Source: NH Department of Health and Human Services, Maternal and Child Health
May 2015

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Increasing Incidence of the Neonatal Abstinence Syndrome in U.S. Neonatal ICUs

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4% of NICU beds occupied by babies with NAS

BACKGROUND

The incidence of the neonatal abstinence syndrome, a drug-withdrawal syndrome that most commonly occurs after in utero exposure to opioids, is known to have

LOS: 24 to 32 days
Plan-Do-Study-Act cycles

- 1. RN scoring training/reliability
- 2. Family interviews
- 3. Baby-centered scoring
- 4. Prenatal education
- 5. Parent symptom diary
- 6. Standardize score interpretation
- 7. Rooming-in pilot
- 8. “Cuddlers”
- 9. Full rooming-in
- 10. Transfers

April 2013

October 2014
Parent Voices

Desire for education/preparation

“I wish I had known a lot more about NAS before I gave birth… I didn’t think the consequences… would affect the baby so much.”

Partners in care team

“I know my baby more than anybody else does. So they have to rely on that to help them out you know with scoring and knowing what she’s going through.”

Interactions with staff

“I’m a recovering heroin addict. I think overcoming something like that and then feeling like you are judged because of it, you end up building some resentment towards people.”
Results: Pharmacologic Treatment

Percentage of Patients Receiving Morphine

Baseline: 46%
Intervention Year 1: 51%
Intervention Year 2: 27%

Last 6 months 20%
Results: Hospital costs

Hospital Cost per treated newborn

- Mean = $19,737
- Baby-Centered Scoring Mean = $11,918
- RN Scoring Training Mean = $8,755

Exposed population: $11,000 to $5,300
Implications

• Centers with LOS of a month or more could significantly shorten hospital course
• If model adopted widely, potential cost savings and positive impact on families are tremendous

$1.8 billion—charges
$600 million--costs
Students in project, in clinical care
QUESTIONS?