Mom and Baby Together: How Neonatal Levels of Care Can Inform Maternal Levels of Care

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Maternal Levels of Care Webinar for MCH Programs
April 16, 2015
U.S. Trends in Neonatal Mortality: Advances in Intensive Care

*NMR=neonatal mortality rate: # deaths to infants <28 days/1,000 live births
Infant Mortality Rates by State, 2013

Source: CDC/NCHS, National Vital Statistics System, main mortality file

Source: CDC/NCHS linked birth/infant death data set
Framework: Provision of Risk-Appropriate Care

- Toward Improving the Outcome of Pregnancy (I, II, III)
- Healthy People 2020
- MCHB Performance Measure #17; MICH 33
- ACOG/AAP Guidelines for Perinatal Care
  - Objective: Develop nationally applicable uniform definitions based on the capability of facilities to provide increasing complexity of care
Meta-Analysis of High-Quality Publication on VLBW Infants

Lasswell, Barfield, Rochat, Blackmon. *JAMA 2010*
7th Edition
2012
Editors
Laura Riley (ACOG)
Sarah Kilpatrick (ACOG)

Associate Editors
Ann Stark (AAP)
Lu-Ann Papile (AAP)
2012 AAP Levels of Neonatal Care

- REVISED from 2004 based on new evidence*

- Level I (basic)
  - Provide neonatal resuscitation at every delivery, as needed
  - Provide care for infants born at 35-37 weeks who are physiologically stable
  - Stabilize infants born <35 weeks or who are ill until transfer to a higher level of care facility

*Source: Lasswell SM, Barfield WD, Rochat RW. Perinatal regionalization for very low-birth weight and very preterm infants: a meta-analysis. JAMA 2010 Sept 1;304(9)VLBW: very low birth weight
Level II (specialty care)

- Provide care for infants \( \geq 32 \) weeks or \( \geq 1500 \) grams who have physiological immaturity (e.g. apnea, inability to feed orally)
- Provide convalescent care after intensive care
- Assisted ventilation for \( \leq 24 \) hours or CPAP

* Note: limited evidence for subdivisions of the level based on current evidence
2012 AAP Levels of Neonatal Care

Level III (subspecialty care)

- Provide continuous life support and comprehensive care for infants <32 wks and <1500 gms
- Provide full range of respiratory support (ex: HFO & iNO)
- Perform advanced imaging with interpretation on an urgent basis (CT, MRI, echocardiography)
- Provide prompt access to full range of pediatric medical and surgical subspecialists on site or by pre-arranged consultative agreements

• Note: limited evidence for subdivisions of the level based on current evidence
• Facility volume not addressed at a population level
Level IV (subspecialty care)

- Located in an institution with the capability to provide surgical repair of complex congenital or postnatal conditions (ex: CHD that requires bypass or ECMO)
- Immediate at-site access to pediatric subspecialists, pediatric surgeons and pediatric anesthesiologists

2012 AAP Levels of Neonatal Care

- Note: Limited evidence for subdivisions of the level based on current evidence
- Facility volume not addressed at a population level
States regulate health care services and facilities

- License hospitals
- Promulgate State Health Plans
  - Distribution of services
  - Allocation of resources
- Approve facility expansion and construction
- Implement Title V programs
  - Certification of specialty services
  - Reimburse for specialty care

*Blackmon, Barfield, Stark J Perinatol 2009
What About the Mom?


Source: CDC/DRH
Levels of Maternal Care now provide nationally applicable uniform definitions based on the capability of facilities to provide increasing complexity of care to pregnant women.

Guidelines for Perinatal Care, 8th Edition will include both maternal and newborn levels of care.