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NEONATAL ABSTINENCE SYNDROME

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INTRODUCTION

Neonatal Abstinence Syndrome (NAS) is a rising concern in infants. This is due to more women taking narcotics while they are pregnant. Approximately 21,732 infants were diagnosed with Neonatal Abstinence Syndrome in 2012. Since then, the number has increased by five times. There is no definitive standardized care for NAS. Studies have been done to look at whether or not standardizing care influences the length of stay and the length of pharmacologic therapy in infants with NAS.

PICOT

- ❖ **Population:** Infants with NAS
- ❖ **Intervention:** Standardizing care for NAS in hospitals
- ❖ **Comparison:** No standardized care
- ❖ **Outcome:** Decrease in length of pharmacological use & hospital stay
- ❖ **Time frame:** From the time the infant is born until they are discharged

PURPOSE

- ❖ The purpose of this study is to see if standardizing care for infants born with Neonatal Abstinence Syndrome (NAS) helps decrease the length of pharmacological treatment and the overall hospital stay.

MATERIALS / METHODS

- ❖ Neonatal abstinence syndrome
 - ❖ When a pregnant woman uses narcotics, they cross the placenta to the fetus. The fetus then becomes dependent on the drug. When an infant is born, they are still dependent on the drug, however they are no longer receiving it. Withdrawal occurs due to the infant's central nervous system becoming overstimulated. Infants may experience tremors, irritability, hyperactive reflexes, seizures, poor feeding and suck, sweating or fever. 55% to 94% of infants exposed to opioids in utero will have withdrawal symptoms
- ❖ Nationwide Children's Hospital Study
 - ❖ This hospital partnered with 5 other hospitals in Ohio for this study.
 - ❖ This study was done to develop a standardized practice that focused on communication between healthcare workers, improving reliability of the Finnegan NAS scoring system & developing an initiation and weaning protocol
 - ❖ They found that compliance with standardized protocol may be more significant than which specific pharmacologic intervention is used
 - ❖ When using methadone with a standardized protocol, the length of stay was decreased
 - ❖ NAS Taskforce developed
 - ❖ Meet monthly
 - ❖ Discuss problems related to the management of NAS, ways to improve the processes & shared improvements with other neonatal units
- ❖ Yale New Haven's Children Hospital Study
 - ❖ Average length of stay for infants with NAS was 22.4 days without standardized treatment
 - ❖ After implementing standardized care, the average length of stay was 5.9 days
 - ❖ Rapid morphine weaning & as-needed morphine protocol established
 - ❖ Infants treated with morphine decreased from 98% to 14%
- ❖ Vermont Oxford Network Quality Improvement Collaborative
 - ❖ 199 birthing centers and NICU's participated
 - ❖ Goal was to determine if these hospitals participating had decreased length of stay and treatment for infants with NAS
 - ❖ Policies developed for standardized NAS scoring increased from 44.8% to 76.5%
 - ❖ Non-pharmacologic policies improved from 59.1% to 84.0%
 - ❖ Standardized pharmacologic treatment increased from 68% to 91.6%

INTERVENTIONS

- ❖ Using standardized guidelines for infants with NAS
- ❖ Using nonpharmacologic and pharmacologic treatment
- ❖ Using standardized medication weaning guidelines
- ❖ Identifying infants who are at risk for NAS
- ❖ Educating women who are pregnant about the risks of narcotic use during pregnancy
- ❖ Using the Finnegan NAS scoring system
- ❖ Having a taskforce to evaluate outcomes and problems to provide the best care

RESULTS / CONCLUSION

- ❖ Following standardized treatment guidelines for infants with NAS
- ❖ Decreased length of stay in the hospital
- ❖ Decreased length of pharmacologic treatment
- ❖ Using nonpharmacologic measures prior to pharmacologic
- ❖ Reliably using the scores of the Finnegan NAS scoring system to determine correct treatment options

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