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Benefits of Rooming-in on Infants with Neonatal Opioid Withdrawal Syndrome

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INTRODUCTION

- Rooming-in is associated with improved neonatal outcomes when implemented in infants with neonatal opioid withdrawal syndrome (NOWS) in comparison with those who are transferred to the neonatal intensive care unit (NICU).
- Rooming-in is related to fewer withdrawal symptoms, shorter length of hospital stays, fewer pharmacological interventions, less costs, and improved breastfeeding/bonding.
- There is limited research that supports if this method of care is as effective in small, rural hospitals.

NEONATAL ABSTINENCE SCORING SYSTEM

Modified Finnegan Neonatal Abstinence Score Sheet[11]

System	Signs and Symptoms	Score	AM	PM	Comments
Central Nervous System Disturbances	Excessive high-pitched (or other) cry <5 mins	2			
	Continuous high-pitched (or other) cry >5 mins	3			
	Sleeps <1 hour after feeding	3			
	Sleeps <2 hours after feeding	2			
	Sleeps <3 hours after feeding	1			
	Hyperactive Moro reflex	2			
	Markedly hyperactive Moro reflex	3			
	Mild tremors when disturbed	1			
	Moderate-severe tremors when disturbed	2			
	Mild tremors when undisturbed	3			
	Moderate-severe tremors when undisturbed	4			
	Increased muscle tone	1			
	Excoriation (chin, knees, elbow, toes, nose)	1			
	Myoclonic jerks (twitching/jerking of limbs)	3			
	Generalized convulsions	5			
Metabolic/Vasomotor/ Respiratory Disturbances	Sweating	1			
	Hyperthermia 98.96-100.94° F	1			
	Hyperthermia >101.12° F	2			
	Frequent yawning(>3-4 times/scoring interval)	1			
	Mottling	1			
	Nasal stuffiness	1			
	Sneezing (>3-4 times/scoring interval)	1			
	Nasal flaring	2			
	Respiratory rate >60/min	1			
	Respiratory rate >60/min with retractions	2			
Gastrointestinal Disturbances	Excessive sucking	1			
	Poor feeding (infrequent/uncoordinated suck)	2			
	Regurgitation (≥2 times during/post feeding)	2			
	Projectile vomiting	3			
	Loose stools (curds/seedy appearance)	2			
	Watery stools (water ring on diaper around stool)	3			
	Total Score				
	Date/Time				
	Initials of Scorer				

Adapted from Finnegan LP. In: Nelson N, editor. Current therapy in neonatal-perinatal medicine. 2ed. Ontario: BC Decker;1990.

Fig 1. Finnegan NAS Tool

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HYPOTHESIS

When offered at rural hospitals, rooming-in will improve outcomes for infants suffering from NOWS.

METHOD

- Quantitative, retrospective chart review comparing withdrawal symptoms/outcomes for infants able to room-in vs. those admitted to the NICU
- Implemented at 3 rural Northern California Hospitals where opioid use is prevalent
- Inclusion criteria: infants born after 36 weeks gestation, infants who do not have any other significant medical issues besides NOWS, and a maternal age of 18 or older
- Those born between August 2023-December 2024 will be admitted directly to the NICU
- Those born between January 2025-May 2026 will room-in
- The Finnegan NAS tool will be used to monitor the severity of the infant's symptoms

IRB

Personal and identifying information will be left out for the protection of participants. Will be IRB approved at Dominican University of CA.

ANALYSIS

- Data will be collected through the patient's chart to determine the effectiveness of rooming-in as a form of treatment for NOWS
- Descriptive statistics will be used to find the mean of a variety of neonatal outcomes
- A t-test will be used to determine if the data is statistically significant

CONCLUSION

This research proposal aims to improve outcomes for infants diagnosed with NOWS. Since rooming-in is a new technique to treating this syndrome, there is little research regarding its effect on rural populations. The purpose of this study is to determine if the results are consistent when applied to different populations.

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