

12-2018

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Recommended Citation

Erickson, Kaylee; Wieland, Anthony; and Ringwald, Kaia, "Evaluation of Neonatal Abstinence Syndrome Management and Prescribing Patterns" (2018). *Pharmacy Posters*. 4.
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Evaluation of Neonatal Abstinence Syndrome Management and Prescribing Patterns

9-416

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Introduction

- Neonatal abstinence syndrome (NAS) is withdrawal from in utero exposure to opioids, amphetamines, benzodiazepines, selective serotonin reuptake inhibitors or nicotine¹
- Pharmacological treatment for NAS includes morphine, methadone, phenobarbital, and clonidine²
- St. Cloud Hospital utilizes the Modified Finnegan Score to assess NAS but does not have a standardized protocol for managing this condition

Purpose

- Identify medications prescribed to manage NAS due to opioids and/or amphetamines
- Evaluate average daily medication wean rates
- Assess length of stay (LOS) and length of treatment (LOT)

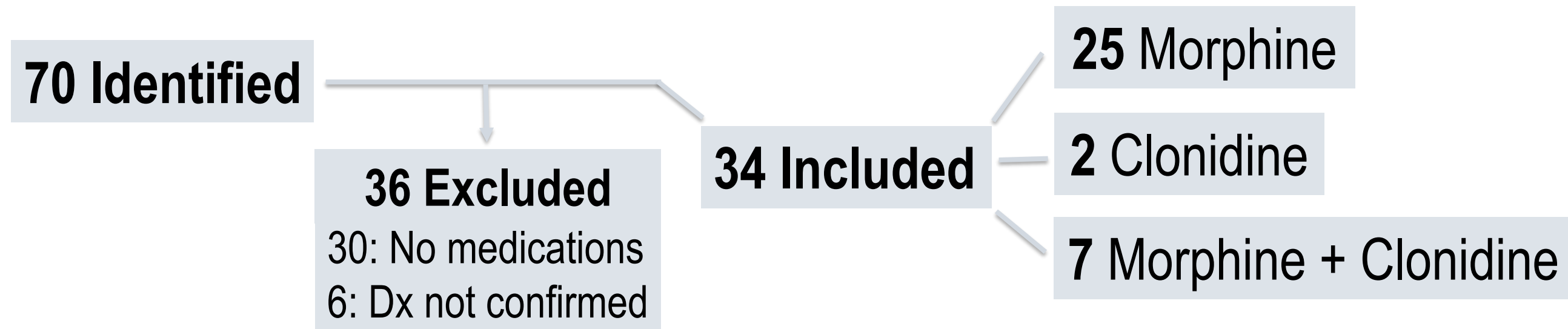
Methods

- IRB-approved, retrospective chart review of patients with an ICD-10 code for NAS from August 22, 2015 to August 22, 2018
- Exclusion criteria:
 - Unconfirmed NAS diagnosis
 - NAS not pharmacologically managed

References

1. Wachman EM, et al. Neonatal abstinence: advances in diagnosis and treatment. *JAMA* 2018;319(13):1362-4
2. Maguire D. Care of the infant with neonatal abstinence syndrome: strength of the evidence. *J Perinat Neonatal Nurse* 2014;28(3):204-11

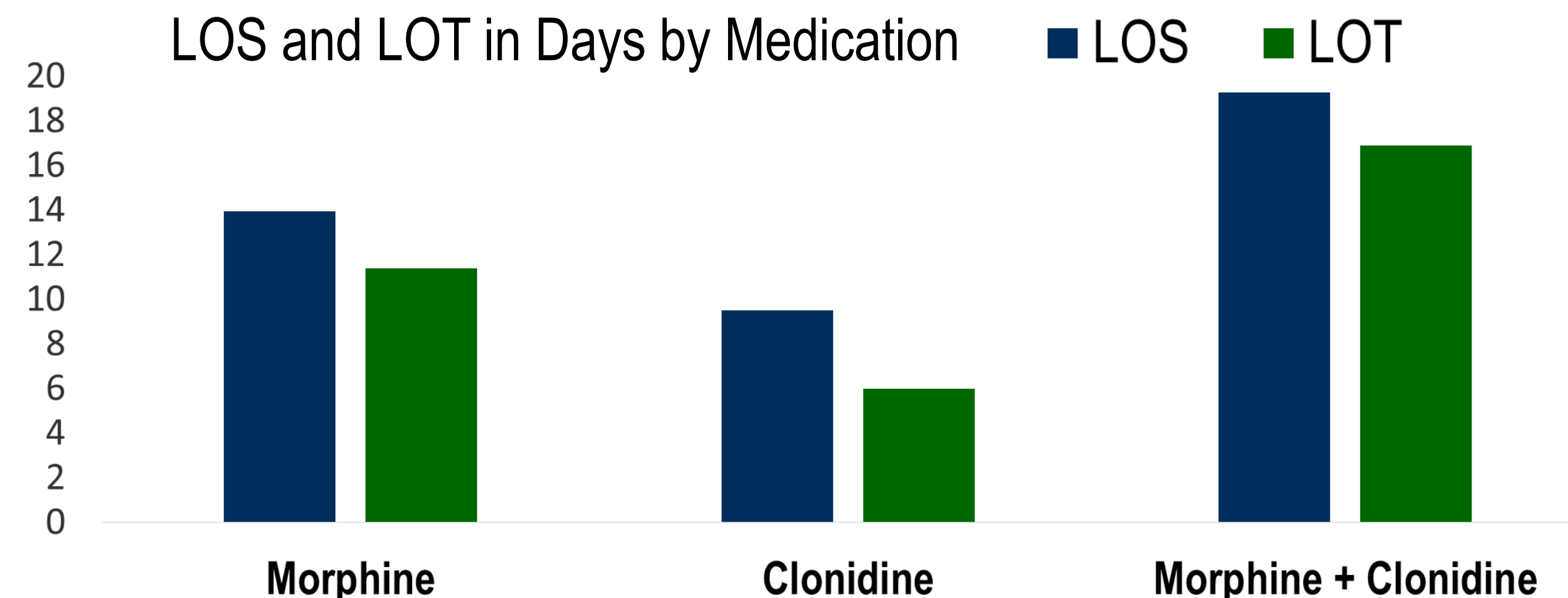
Results



Patient Characteristics	
Gestational Age (mean)	38 weeks, 4 days
Birth weight (mean)	3.08 kg
Sex (female)	53%
Opioid withdrawal	21 patients
Amphetamine withdrawal	1 patient
Opioid and amphetamine withdrawal	12 patients

Medication(s)	Average Daily Wean Rate (%)
Morphine*	5.4 (0-15)
Clonidine*	2.5
Morphine + Clonidine**	Morphine: 5.6 (0.6-15) Clonidine: 5 (0-15)

*One patient excluded
 **Two patients excluded



Evaluation

- Many patients managed non-pharmacologically
- Most commonly prescribed medication for withdrawal was morphine
 - Clonidine was utilized as additive therapy in patients with higher NAS scores
- Patients who required dual therapy typically had a longer LOT and LOS
- Medication wean rates were inconsistent and lower than expected
 - Calculating wean rates proved difficult
- Assessment of medications for NAS was limited to inpatient use
- Other limitations include a lack of standardization for nurses to record NAS scores and a small study population

Conclusion

- Results of this study provide baseline descriptive statistics that may aid in evaluation of future NAS treatment plans or protocols at St. Cloud Hospital

Disclosure

- Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
 Kaylee Erickson: Nothing to disclose
 Anthony Wieland: Nothing to disclose
 Kaia Ringwald: Nothing to disclose