

Sorbitol Based Solution for Infant Constipation and Associated Pain

A safe, pre-packaged solution that treats both constipation and associated pain in young infants (<6 months old).

Technology

Dr. Sinha at NYU Langone has developed a sorbitol sugar based solution specifically designed to treat constipation and associated pain in infants under six months old. Leveraging his extensive experience as a pediatrician, Dr. Sinha created this sorbitol preparation to meet the sensitive needs of young infants. Sorbitol is a sugar alcohol that acts as a laxative by drawing water into the large intestine, thereby stimulating bowel movements similar to MiralAX. Additionally, sorbitol's sweet taste has the potential to alleviate pain, akin to the widely recognized analgesic effects of sucrose in neonates and infants. While products like Sweet-Ease and other sucrose solutions are effective in treating pain and discomfort, they do not address the underlying constipation. Further, this innovative dual-action solution offers a safer alternative to off-the-shelf juices, which often contain additives, pose dosage challenges, and may lack pasteurization. It can be manufactured as a premixed product, ensuring ease of use and reducing the risk of user error. Given the urgent need for safe and effective products for infants, this sorbitol solution provides caregivers with a convenient option to manage their infant's constipation and pain.

Background

Infants under six months old often experience constipation and associated discomfort. Common remedies like MiralAX and fruit juices (prune, apple, or pear) are not suitable for this age group. Typically, parents may switch to sensitive formulas such as Enfamil Gentlease, but this solution is ineffective for some infants and not an option for exclusively breast-fed babies. While small amounts of fruit juice can be given, parents may face challenges in ensuring the juice is pasteurized, the correct dosage, and devoid of additives unsuitable for babies. Given these obstacles, there is a pressing need for safe and easy-to-administer pre-packaged solutions that provide reliable relief for infant constipation and associated pain.

Development Stage

NYU is seeking an experienced and well-resourced commercial partner to support the further development and clinical testing of this product with the end goal of bringing the sorbitol solution to market.

Application

Treatment for constipation and associated pain, for infants (<6 months), toddlers, and children under the age of 12.

Advantages

Technology ID

SIN03-01

Category

Life Sciences/Consumer Health
Olivia Zelony

Authors

Shadman Sinha, MD

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- **First OTC solution for young infants:** Specifically designed for young infants (<6 months old), it provides a safer alternative to off-the-shelf juices and other remedies that are not suitable for this age group.
- **Dual action relief:** The solution addresses both constipation and the associated pain, unlike existing products that typically target only one of these issues (e.g., Sweet-Ease, MiraLAX).
- **Pre-measured convenience:** The solution is designed to be manufactured as a pre-measured product, ensuring ease of use for caregivers in dosing.
- **Validated approach:** Sorbitol is well-documented in the literature for its efficacy in treating constipation.

Intellectual Property

NYU has filed a U.S. provisional patent application covering the methods of administering the sorbitol solution for constipation in children under 12 years old.