Session/Poster# Presenter

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Reporting Nasal Pressure Injuries in Neonates Receiving Non-Invasive Ventilation: A Systematic Review

Introduction: Although neonates treated with various non-invasive ventilation (NIV) devices are at risk for nasal pressure injuries, a consensus on its reporting remains limited highlighting the need for a standardized nasal injury classification system for optimal communication and management.
Methods: A systematic review of literature was conducted (July 2022) to identify classification systems used for evaluating and describing nasal pressure injuries with NIV usage in neonates. Databases (PubMed, Embase, and Web of science) were queried for scientific papers published after the year 2000. Methodology from Preferred Reporting Items for Systematic Reviews and Meta Analysis (PRISMA) was employed. Primary outcome was classification system usage.
Results: 705 articles were screened, of which 83 met inclusion criteria. The most common studies were randomized clinical trials (52%), cohort studies (31%), and case series (6%). Nasal injury was often reported dichotomously (yes/no) as seen in 31 studies (37%) or using descriptive measures (mild/moderate/severe) in 8 studies (10%). The most cited (n=13 [16%]) descriptive scale was developed by Fischer et al. (2010), which was adopted from the second most cited (n=9 [11%]) descriptive scale by the National Pressure Ulcer Advisory Panel. Classifications created by authors (n=8 [10%]), adaptations from prior publications (n=7 [8%]) and the use of other scales (n=7 [8%]) made up the rest. While 21 studies reported specific nasal subsite injury, only 2 studies employed nasal endoscopy for intranasal injury assessment. Just 6 studies commented on patient follow-up.
Conclusion
There is a wide heterogeneity in nasal pressure injury reporting and evaluation that exists across institutions, and literature. Implementation of a standardized classification system will help to improve care coordination, allow for better comparison of results across studies, and advance prevention and treatment of nasal pressure injuries.