# Emerging neonatal infections: Challenges in a changing world.

**Marta Cofini***

Aga Khan University Medical Center, Pakistan

## Introduction

Emerging neonatal infections are infections caused by pathogens that were previously rare, unfamiliar, or not considered a significant threat to newborns. These infections can be caused by bacteria, viruses, fungi, or other microorganisms. The emergence of new neonatal infections can result from various factors, including changes in microbial ecosystems, global travel, and antimicrobial resistance [1].

Antimicrobial Resistance (AMR): The widespread misuse and overuse of antibiotics have led to the development of antimicrobial resistance in various pathogens. This resistance can render traditional antibiotics ineffective, making infections more challenging to treat in neonates. Globalization and Travel: Increased global travel and movement of people have facilitated the spread of infectious agents. Diseases that were once geographically isolated can now be rapidly transmitted to different parts of the world, potentially affecting neonates in areas where these pathogens were previously uncommon [2].

Environmental Changes: Changes in the environment, such as climate change and deforestation, can alter the distribution of disease vectors (e.g., mosquitoes) and the habitats of certain pathogens. This can expose neonates to infections that were previously limited to specific regions. Healthcare-Associated Infections: Neonatal intensive care units (NICUs) are essential for the care of premature and critically ill newborns. However, the concentration of vulnerable infants in these settings can facilitate the transmission of healthcare-associated infections, including emerging ones [3].

Challenges in Managing Emerging Neonatal Infections: Delayed Diagnosis: Emerging infections may not be on the radar of healthcare providers, leading to delayed diagnosis and treatment. Neonates are particularly vulnerable to rapid disease progression, and delays can have severe consequences. Antimicrobial Resistance: The rise of antimicrobial resistance limits treatment options for neonatal infections. Finding effective antibiotics becomes increasingly challenging as resistance spreads [4].

Resource Constraints: In many parts of the world, healthcare systems face resource constraints, making it difficult to implement infection control measures, provide timely diagnostics, and administer appropriate treatments. Vaccine Development: Developing vaccines for emerging neonatal infections can be a lengthy process. In the meantime, neonates remain susceptible to these pathogens [5].

## Conclusion

Emerging neonatal infections represent a dynamic and evolving challenge in the field of neonatal care. As our world changes, so too do the threats to newborns. Addressing these challenges requires a multidisciplinary approach involving healthcare providers, researchers, public health authorities, and policymakers. By staying vigilant, implementing effective prevention and control measures, and supporting research and innovation, we can better protect the most vulnerable members of our society and ensure that neonates have the best possible start in life, even in the face of emerging infections.

## Reference

1. Tzialla C, Civardi E, Borghesi A, et al. Emerging viral infections in neonatal intensive care unit. J Matern Fetal Neonatal Med. 2011;24(sup1):156-8.
2. Tzialla C, Borghesi A, Pozzi M, et al. Neonatal infections due to multi-resistant strains: Epidemiology, current treatment, emerging therapeutic approaches and prevention. Clin Chim Acta. 2015;451:71-7.
3. Pesch MH, Schleiss MR. Emerging concepts in congenital cytomegalovirus. Pediatrics. 2022;150(2):2021055896.
4. Neog N, Phukan U, Puzari M, et al. Klebsiella oxytoca and emerging nosocomial infections. Curr Microbiol. 2021;78(4):1115-23.
5. Muller WJ, Zheng X. Laboratory diagnosis of neonatal herpes simplex virus infections. J Clin Microbiol. 2019;57(5):10-128.

***Correspondence to**: Marta Cofini, Unit of Paediatric Surgery, Aga Khan University Medical Center, Pakistan. E-mail: marta55@pakistan.com

***Received:** 30-Sept-2023, Manuscript No. AAPNM-23-115943; **Editor assigned:** 2-Oct-2023, PreQC No. AAPNM-23-115943(PQ); **Reviewed:** 16-Oct-2023, QC No. AAPNM-23-115943; **Revised:** 20-Oct-2023, Manuscript No. AAPNM-23-115943(R); **Published:** 27-Oct-2023, DOI: 10.35841/aapnm-7.5.170*

***Citation:** Cofini M. Emerging neonatal infections: Challenges in a changing world. J Preg Neonatal Med. 2023;7(5):170*