

Atiqur Rahman Khan

# Neonatal Clinical Pharmacology

Principles, Dosing,  
and Safe Drug Use  
in the Newborn

 DeepScience

# Neonatal Clinical Pharmacology: Principles, Dosing, and Safe Drug Use in the Newborn

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# ABBREVIATIONS

ADME – Absorption, Distribution, Metabolism, Excretion

AKI – Acute Kidney Injury

BPD – Bronchopulmonary Dysplasia

CYP – Cytochrome P450

GFR – Glomerular Filtration Rate

NICU – Neonatal Intensive Care Unit

PK – Pharmacokinetics

PD – Pharmacodynamics

TDM – Therapeutic Drug Monitoring

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# About the Author

**Dr Atiqur Rahman Khan, MD** is a consultant paediatrician and neonatologist with more than 18 years of clinical experience in neonatal and paediatric care. He is currently working under the Ministry of Health in the Kingdom of Saudi Arabia, where he is actively involved in neonatal intensive care, clinical teaching, and quality improvement initiatives aimed at improving outcomes in newborn infants.

Dr Khan has a strong academic interest in neonatal pharmacology, medication safety, and evidence-based neonatal practice. He is currently pursuing an **MSc in Neonatology at the University of Southampton, United Kingdom**, where his academic work focuses on clinical pharmacology and drug therapy in neonates.

In addition to his clinical work, Dr Khan is actively engaged in academic publishing, peer review, and medical education. He has contributed to several clinical publications and educational resources aimed at improving neonatal care and promoting safe medication practices in neonatal intensive care units.

His primary areas of interest include:

- Developmental pharmacokinetics and pharmacodynamics
- Antimicrobial therapy in neonates
- Medication safety in neonatal intensive care units
- Evidence-based neonatal medicine

Through this book, Dr Khan aims to provide clinicians, trainees, and researchers with a practical and clinically relevant guide to pharmacological therapy in newborn infants.