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Neelam Gupta<sup>1,2</sup>, *Edition editor*

While working in a neonatal intensive care setting, I often come across a heavy burden of infections and frequent use of antibiotics. Although there is established guidance for how common antibiotics such as aminoglycosides should be prescribed, administered and monitored, challenges remain about how to facilitate intravenous access for drug delivery in newborns. The actual administration of antibiotics in neonatal and paediatric patients is often more complex than it seems. The delivery kinetics of medications especially for drugs with narrow therapeutic window like aminoglycosides are not well studied. This leads to difficulties in accurately determining the pharmacodynamic and pharmacokinetic drug relationships. In our medicine update section, Abigail Manning and Anna Burgess presents a concise literature review which compares methods of administration of aminoglycosides using intravenous injection vs intravenous infusion in the paediatric setting (*see page 242*). They have highlighted variation in practice, existing current evidence and how further research studies comparing methods of administration can bring efficacy and improve cost benefits. The article provides clinically relevant information on commonly used antibiotics and successfully highlights practice gaps; this is my Editors' choice.

Following on with the infection theme, this issue has two interesting Fifteen-minutes consultation articles which I highly recommend. Group A Streptococcus (GAS) is a common type of bacteria that typically causes pharyngitis and scarlet fever. While

most infections are mild, during 2022–23, global health agencies recorded a surge in severe invasive GAS infection (iGAS).<sup>1,2</sup> The incidence of iGAS returned to the usual seasonal levels in Feb 2023 but a heightened community awareness still exists.<sup>3</sup> Several international guidelines and diagnostic tools are available to support clinical decision-making for management of GAS pharyngitis. In their article, Amanda Taylor and Rachel Webb discuss the management of GAS pharyngitis, with inculcation of these key decision support tools and guidelines. While clinical practices for treatment of GAS should be based on local epidemiology and guidelines, this article provides a relevant general overview for all clinicians (*see page 210*).

Mammalian bites are common in children and carry a significant risk of infection, tissue trauma and emotional distress.<sup>4</sup> Anais Lucile Schneider and colleagues summarise the current management of animal and human bites with an emphasis on how good local wound management can reduce the risk of infection. The authors rightly focus on rationalisation of prophylactic and therapeutic antibiotic use, to combat antimicrobial resistance (*see page 222*). The article is a must-read for clinicians working in paediatric emergency and primary care settings.

I would also like to bring your attention to the article which addresses a topic close to my heart: optimising pain management. To manage pain effectively, assessment is key. This is particularly challenging in the paediatric cohort and even more so in non-verbal children. Anne Haddick and colleagues outlines a strategy of pain assessment in non-verbal children who have severe neurological impairment. The authors provide a systematic approach for pain assessment and highlight the importance of utilising

non-verbal indicators of pain in this vulnerable cohort (*see pages 228*).

A pleasing collaboration across continents is evident in this issue, which showcases articles written by various international authors spanning from Australia, New Zealand, Europe, the USA and UK. Our editors managing these articles are also from diverse backgrounds and of different clinical expertise, and we are especially proud that this issue encompasses such a diversity of knowledge and views to be shared. We hope that you find these articles relevant to your clinical practice, wherever you are in the world. We would love to hear your ideas and welcome international authors to continue to contribute. For a quick overview of what *Archives of Disease in Childhood* is currently publishing, check out the excerpts of latest key publications on social media platform X @adc\_bmj. Happy reading!

Neelam.Gupta@gstt.nhs.uk

## REFERENCES

- 1 Guy R, Henderson KL, Coelho J, *et al*. Increase in invasive group A streptococcal infection notifications, England, 2022. *Euro Surveill* 2023;28.
- 2 World Health Organization. Disease outbreak news. Increased incidence of scarlet fever and invasive group A streptococcus infection – multi-country, 2022. Available: <https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON429>
- 3 Gov.UK. Group A streptococcal infections: report on seasonal activity in England, 2024. Available: [https://www.gov.uk/government/publications/group-a-streptococcal-infections-report-on-seasonal-activity-in-england-2023-to-2024](https://www.gov.uk/government/publications/group-a-streptococcal-infections-report-on-seasonal-activity-in-england-2023-to-2024/group-a-streptococcal-infections-report-on-seasonal-activity-in-england-2023-to-2024)
- 4 Fielding P, Messahel S. Guideline review – human and animal bites: antimicrobial prescribing. *Arch Dis Child Educ Pract Ed* 2022;107:442–5.

Department of Neonatology, Evelina London Children's Hospital, Guys and St Thomas Hospital NHS Trust, London, UK; Faculty of Life Sciences & Medicine, King's College London, London, UK

Correspondence to Dr Neelam Gupta; Neelam.Gupta@gstt.nhs.uk