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EDITORIAL

RSV Disease: Current Management and the Future of Treatment and Prevention

Leonard R. Krilov • Joseph B. Domachowske • Evan J. Anderson

L. R. Krilov (✉)
Department of Pediatrics, NYU Langone Hospital – Long Island and the NYU Long Island School of Medicine, Mineola, NY, USA

e-mail: Leonard.Krilov@nyulangone.org

J. B. Domachowske

Department of Pediatrics, SUNY Upstate Medical University, Syracuse, NY, USA

E. J. Anderson
Departments of Pediatrics and Medicine, Emory University School of Medicine, Atlanta, GA, USA.

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DIGITAL FEATURES

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Since the initial discovery of respiratory syncytial virus (RSV) in 1956 and its association with infant bronchiolitis, much has been learned about the epidemiology and clinical manifestations of RSV infection [1, 2]. Despite these developments, effective treatments are lacking [3]. Immunoprophylaxis (IP) with the humanized monoclonal antibody palivizumab has been available since 1998 and is highly effective (reducing RSV hospitalization [RSVH] rates up to 78% and preventing RSVH by 58% in high-risk pediatric populations) [3-7]. However, due to cost concerns and controversy surrounding the optimal patient populations for such IP, its use is limited to high-risk infants and children [3].

Recent epidemiologic studies are helping to better define the severity and costs associated with RSV infection in high-risk patients [8, 9]. These data will facilitate identifying the most appropriate populations to recommend for RSV IP. Additionally, antiviral treatments, vaccines, and a long-acting IP agent are on the horizon. Data supporting their use in late phase clinical trials are needed to demonstrate safety and efficacy [3].

In this compendium, experts in the field present updates on exciting developments. The supplement begins with an overview by Chatterjee et al of the current state of RSV management and changes in the American Academy of Pediatrics (AAP) policy for RSV IP use since 1998. Goldstein et al then discuss the impact of the 2014 AAP policy for RSV IP on RSVH in premature infants (born at 29 to 34 weeks' gestational age). This is followed by a further analysis of the severity and costs of RSVH among premature infants by Krilov et al. Young et al address the socioeconomic impact of RSVH in high-risk populations and the potential of these observations to warrant a

reassessment of the AAP policy for RSV IP use. Finally, Domachowske et al describe exciting potential advances in RSV treatment and prevention but caution that clinical implementation remains at least several years in the future.

On behalf of all the authors involved in the development of this supplement, we hope the readers find these updates informative. The advances in the understanding of RSV-related epidemiology and management options described in this supplement may translate to improved care and prevention of the substantial morbidity associated with RSV in infants and young children in the foreseeable future.

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Compliance with Ethics Guidelines

This article is based on previously conducted studies and does not contain any studies with human participants or animals performed by any of the authors.

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