Embracing the challenges of neonatal and paediatric pulmonary hypertension

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Shareable abstract (@ERSpublications)
This article discusses recent advances, ongoing challenges and distinct approaches for caring for infants and children with pulmonary arterial hypertension, as presented by the paediatric task force of the 7th World Symposium on Pulmonary Hypertension. https://bit.ly/4bSg66C

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Abstract

Paediatric pulmonary arterial hypertension (PAH) shares common features with adult disease, but is associated with several additional disorders and challenges that require unique approaches. This article discusses recent advances, ongoing challenges and distinct approaches for caring for infants and children with PAH, as presented by the paediatric task force of the 7th World Symposium on Pulmonary Hypertension. We provide updates on diagnosing, classifying, risk-stratifying and treating paediatric pulmonary hypertension (PH) and identify critical knowledge gaps. An updated risk stratification tool and treatment algorithm is provided, now also including strategies for patients with associated cardiopulmonary conditions. Treatment of paediatric PH continues to be hindered by the lack of randomised controlled clinical trials. The challenging management of children failing targeted PAH therapy is discussed, including balloon atrial septostomy, lung transplantation and pulmonary-to-systemic shunt (Potts). A novel strategy using a multimodal approach for the management of PAH associated with congenital heart diseases with borderline pulmonary vascular resistance is included. Advances in diagnosing neonatal PH, especially signs and interpretation of PH by echocardiography, are highlighted. A team approach to the rapidly changing physiology of neonatal PH is emphasised. Challenges in drug approval are discussed, particularly the challenges of designing accurate paediatric clinical trials with age-appropriate end-points and adequate enrolment.