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Role of neonatologist-performed echocardiography in the assessment and management of patent ductus arteriosus physiology in the newborn

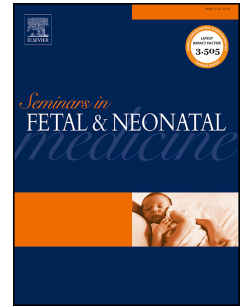
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## **Role of neonatologist-performed echocardiography in the assessment and management of patent ductus arteriosus physiology in the newborn**

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### **SUMMARY**

Neonatologist-performed echocardiography (NPE) is an indispensable tool in the haemodynamic management of critically ill newborn infants. NPE is used to facilitate timely diagnosis of a patent ductus arteriosus (PDA) in preterm infants and to assess its haemodynamic significance. Before treatment is considered, it is obligatory to confirm structural cardiac normality. Importantly, NPE offers the ability to guide therapeutic interventions, allowing an individualised haemodynamic management approach to the PDA. After discussing PDA pathophysiology, an overview is provided on the role of NPE in the assessment and management of PDA in preterm infants.

*Keywords:*

Neonatologist-performed echocardiography

Patent ductus arteriosus

Preterm infants

Haemodynamic significance

### **1. Introduction**

The management of a patent ductus arteriosus (PDA) in preterm infants <28 weeks gestation is currently one of the most debated topics, even though PDA has been recognised as a potential pathological entity for more than half a century. The approach towards a preterm infant with a PDA has transitioned from 'aggressive' active closure, either

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