

Journal of the Royal College of Paediatrics and Child Health

#### **Editor in Chief**

R Mark Beattie

### **Edition Editor**

Ben Stenson

# Senior Editor

Martin Ward Platt

#### **Deputy Editors**

Patrick Cartlidge (Commissioning Editor) Imti Choonara (Drug Therapy) Peter Hoyer (EAP) lan Wacogne (Education & Practice) Martin Ward Platt (FNN)

### **Editorial Office**

Archives of Disease in Childhood BMJ Publishing Group Ltd **BMA** House

Tavistock Square

London WC1H 9JR, UK T: +44 (0)20 7383 6909

F: +44 (0)20 7383 6668

E: archdischild@bmjgroup.com

ISSN: 1359-2998 (print) ISSN: 1468-2052 (online) **Impact factor** 3.861

**Disclaimer:** *ADC* is published by BMJ Publishing Group Ltd (a wholly owned subsidiary of the British Medical Association) and the Royal College of Paediatrics and Child Health. The owners grant editorial freedom to the Editor of ADC. ADC follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

ADC is intended for medical professionals and is provided without warranty, express or implied. Statements in the journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group, the Royal College of Paediatrics and Child Health or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply

To the fullest extent permitted by law, the BMJ Publishing Group shall not be liable for any loss, injury or damage resulting from the use of Heart or any information in it whether based on contract, tort, or otherwise. Readers are advised to verify any information they choose to rely on.

Copyright © 2015 BMJ Publishing Group and Royal College of Paediatrics and Child Health. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permissio

ADC is published by BMJ Publishing Group Ltd, typeset by Techset, and printed in the UK on acid-free paper.

ADC (ISSN No: 0003-9888) is published monthly by BMJ Publishing Group and is distributed in the USA by Air Business Ltd. Periodicals postage paid at Jamaica NY 11431 and additional mailing offices. POSTMASTER: send address changes to *Archives of Disease in Childhood*, Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

#### **Fantoms**

Highlights from this issue B Stenson

#### **Editorials**

Lactate, glucose and the neonatal brain: it's time to challenge the paradigm

M W Platt

The BRACELET study: implications for the design of randomised controlled trials in neonatal and paediatric intensive care N D Embleton, I Rankin

### Leading article

Interpretation of early life mortality rates D Field, L Smith, B Manktelow, P McParland, ES Draper

### **Original articles**

**F102** Improving infant outcome with a 10 min Apgar of 0 E Kasdorf, A Laptook, D Azzopardi, S Jacobs, I M Perlman

**F106** Neurodevelopmental outcomes of preterm singletons, twins and higher-order gestations: a population-based cohort study L Gnanendran, B Bajuk, J Oei, K Lui, M E Abdel-Latif, for the NICUS Network

F116 Accounting for multiple births in randomised trials: a systematic review L N Yelland, T R Sullivan, M Makrides

F121 Umbilical blood flow patterns directly after birth before delayed cord clamping I Boere, A A W Roest, E Wallace, A D I ten Harkel, M C Haak, C J Morley, S B Hooper, A B te Pas

F126 Clinically stable very low birthweight infants are at risk for recurrent tissue glucose fluctuations even after fully established enteral nutrition E Mola-Schenzle, A Staffler, M Klemme, F Pellegrini, G Molinaro, K G Parhofer, H Messner, A Schulze, A W Flemmer

**F132** Peak systolic to end diastolic flow velocity ratio is associated with ductal patency in infants below 32 weeks of gestation A Smith, M Maguire, V Livingstone, E M Dempsey

**F137** Epidemiology of congenital diaphragmatic hernia in Europe: a register-based study

M R McGivern, K E Best, J Rankin, D Wellesley, R Greenlees, M-C Addor, L Arriola, H de Walle, I Barisic, J Beres, F Bianchi, E Calzolari, B Doray, ES Draper, EGarne, MGatt, MHaeusler, B Khoshnood, K Klungsoyr, A Latos-Bielenska, M O'Mahony, P Braz, B McDonnell, C Mullaney, V Nelen, A Queisser-Luft, H Randrianaivo, A Rissmann, C Rounding, A Sipek, R Thompson, D Tucker, W Wertelecki, C Martos

**F145** PaCO<sub>a</sub> in Surfactant, Positive Pressure, and Oxygenation Randomised Trial (SUPPORT) N Ambalavanan, W A Carlo, L A Wrage, A Das, M Laughon, C M Cotten, K A Kennedy, A R Laptook, S Shankaran, M C Walsh, R D Higgins, For the SUPPORT Study Group of the NICHD Neonatal Research Network

F150 Born too small: who survives in the public hospitals (3) in Lilongwe, Malawi?

A K Ahlsén, E Spong, N Kafumba, F Kamwendo,

The outcome of treatment limitation discussions in newborns with brain injury OPEN ACCESS M Brecht, D I C Wilkinson

### **Short research report**

F161 Lactate, rather than ketones, may provide alternative cerebral fuel in hypoglycaemic newborns D L Harris, P J Weston, J E Harding

Cerebral oxygenation with different nasal continuous positive airway pressure levels in preterm infants S Bembich, L Travan, G Cont, J Bua, T Strajn,

F169 Congenital chylothorax: a prospective nationwide epidemiological study in Germany A Bialkowski, CF Poets, AR Franz, and the Erhebungseinheit für seltene pädiatrische Erkrankungen in Deutschland Study Group

# **Reviews**

F173 Being baby friendly: evidence-based breastfeeding support

I Cleminson, S Oddie, M I Renfrew, W McGuire

Impact of retinopathy of prematurity on ocular structures and visual functions



A Fielder, H Blencowe, A O'Connor, C Gilbert

The content of Fetal and Neonatal is endorsed by the Royal College of Paediatrics and Child Health for Continued Professional Development in line with RCPCH CPD guidelines



(3)

This article has been chosen by the Editor to be of special interest or importance and is freely available online.

This article has been made freely available online under the BMJ Journals Open Access scheme. See http://adc.bmj.com/site/ OPEN ACCESS about/quidelines.xhtml#open



This journal is a member of and subscribes to the principles of the Committee on Publication Ethics

www.publicationethics.org.uk



recycle





### **PostScript**

F185 Management of neonatal early onset sepsis (CG149): compliance of neonatal units in the UK with NICE recommendations

A Mukherjee, B Ramalingaiah, N Kennea, D A Duffy

- F186 Reliability of National Neonatal Audit Project's retinopathy of prematurity screening data S J Oddie
- **F186** Response to: 'Reliability of National Neonatal Audit Project's retinopathy of prematurity screening data' by Finer and colleagues

  A J Lyon
- F186 Rotavirus immunisation in NICU: a 1-year experience in a UK tertiary neonatal surgical unit postvaccine introduction

S C Jaques, L Ogley, D Duffy, N Kennea

# Hyperion

**F188** Highlights from the literature

# Images in neonatal medicine

- F101 Decreasing mean airway pressure as a management strategy for tension pneumatocoeles A C Wellington, N A Spigland, S Worgall, A M Groves
- **F115** Extensive blueberry muffin rash in a neonate *J Pansy, N Morris, B Resch*
- F164 4D phase contrast MRI in the preterm infant: visualisation of patent ductus arteriosus

  K M Broadhouse, A N Price, A E Finnemore, D J Cox, A D Edwards, J V Hajnal, A M Groves