

## IVH – the rise (and fall) of the surfactant dose?

**To the Editor:** The incidence (or not) of intraventricular haemorrhage (IVH) in infants receiving surfactant remains controversial. Moreover, it is well known that the incidence of IVH, adjusted for known risk factors, varies across neonatal intensive care units (NICUs) in any country.<sup>1</sup>

Given that a trend towards an increase in overall IVH incidence with natural surfactant was noted in the meta-analysis by Soll,<sup>2</sup> an important question arises: Could a recent trend in higher concentrations/doses of natural surfactant lead to an increase in IVH? It is not suggested that there is a consistent association between surfactant treatment and IVH, but this is an interesting consideration. As surfactant treatment has consistently been shown to lower mortality, it is extremely important to ensure that this is not at the expense of increased survival of infants brain damaged by haemorrhage or ischaemia.<sup>3</sup> Infants who present with respiratory distress syndrome (RDS) are extremely vulnerable, and are precisely the infants most at risk of cerebral lesions.

This relevant question is applicable in South Africa and internationally, with the proposal for the inclusion of surfactant in the WHO model list of essential medicines. Since surfactant has been adopted into routine neonatal practice in South Africa, the other very important question of economic impact has shifted to questions regarding the specific preparations, number of doses, modes of administration, concomitant use of new technologies such as nasal continuous pulmonary airway pressure (nCPAP), etc. However, before stakeholders plunge headlong into an economic – or any other – argument, perhaps there is a need for greater collaboration between clinicians (and the pharmaceutical industry) in the reporting of recent trends, including adverse events in this very vulnerable group.

### Dhamend Lutchman

*School of Pharmacy and Pharmacology  
University of KwaZulu-Natal  
dhamend.lutchman@abbott.com*

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2. Soll RF, Blanco F. Natural surfactant extract versus synthetic surfactant for neonatal respiratory distress syndrome. *Cochrane Database of Systematic Reviews* 2001, Issue 2. Art. no.: CD000144.
3. Halliday H, Robertson B. Cerebral blood flow velocity changes after rapid administration of surfactant. *Arch Dis Child* 1992; 67(4 spec. no.): 470.