

General care during RDS – Prevention of infection

Differentiation of RDS from early onset septicaemia due to group B streptococcus is difficult, and the initial investigation of babies with RDS should include a blood culture. Many neonatologists commence antibiotic therapy whilst awaiting laboratory confirmation that infection is absent. However the prolonged use of broad-spectrum antibiotics may predispose to fungal infection [Weese-Mayer et al].

Sterile technique when inserting umbilical and percutaneous long lines is important and minimizing these interventions, if possible, may be important in infection prevention. Sterile dressings on IV cannulae may also be important as may protecting the skin of very small babies by avoiding sticky tape and monitors which burn or damage the skin.

There are some studies of prophylaxis against infection. One study has shown a decrease in the incidence of systemic fungal infection using prophylactic nystatin but no effect on mortality was demonstrated [Sims et al]. There is currently insufficient evidence to recommend the prophylactic use of colony stimulating factors [Carr et al]. The use of prophylactic immunoglobulin is associated with a decreased risk of infection but no effect on morbidity in preterm babies [Ohlsson et al].

Summary and Levels of Evidence

Differentiation of RDS from GBS infection is difficult and blood cultures and antibiotics should be considered until cultures are negative	C
Sterile technique for invasive procedures is important to prevent infection	B
Prophylactic use of immunoglobulin or colony stimulating factors has not been shown to decrease morbidity	A

References

Weese-Mayer DE, Fondriest DW, Brouillette RT, Shulman ST. Risk factors associated with candidemia in the neonatal intensive care unit: a case-control study. *Pediatr Infect Dis J* 1987;6:190-196

Sims ME, Yoo Y, You H, Salminen C, Walther FJ. Prophylactic oral nystatin and fungal infections in very-low-birthweight infants. *American Journal of Perinatology* 1988;5:33-36.

Ohlsson A, Lacy JB. Prophylactic intravenous immunoglobulin (IVIG) in preterm and/or low-birth-weight neonates. *Cochrane Database of Systematic Reviews* 1997;<http://www.nichd.nih.gov/cochrane/OHLSSON/OHLSSON1.HTM>

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