The Hierarchy of Evidence

The Hierarchy of evidence is based on summaries from the National Health and Medical Research Council (2009), the Oxford Centre for Evidence-based Medicine Levels of Evidence (2011) and Melynyk and Fineout-Overholt (2011).

I Evidence obtained from a systematic review of all relevant randomised control trials.

II Evidence obtained from at least one well designed randomised control trial.

III Evidence obtained from well-designed controlled trials without randomisation.

IV Evidence obtained from well designed cohort studies, case control studies, interrupted time series with a control group, historically controlled studies, interrupted time series without a control group or with case- series

V Evidence obtained from systematic reviews of descriptive and qualitative studies

VI Evidence obtained from single descriptive and qualitative studies

VII Expert opinion from clinicians, authorities and/or reports of expert committees or based on physiology

Melynyk, B. & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing & healthcare: A guide to best practice (2nd ed.).* Philadelphia: Wolters Kluwer, Lippincott Williams & Wilkins.

National Health and Medical Research Council (2009). *NHMRC levels of evidence and grades for recommendations for developers of guidelines* (2009). Australian Government: NHMRC. http://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/evidence_statement_form.pdf

OCEBM Levels of Evidence Working Group Oxford (2011).*The Oxford 2011 Levels of Evidence*. Oxford Centre for Evidence-Based Medicine. http://www.cebm.net/index.aspx?o=1025

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Reference *(include title, author, journal title, year of publication, volume and issue, pages)*	Evidence level (I-VII)	Key findings, outcomes or recommendations
Tin, W., Milligan, W.A., Pennefather, P., & Hey, E. (2001). Pulse oximetry, severe retinopathy, and outcome at one year in babies of less than 28 weeks gestation. *Archives of Diseases in Childhood Fetal Neonatal Edition.* 84: F106- F110.	**IV**	**Examination of case notes of 295 babies who were born before 28 weeks gestation ROP developed in babies with oxygen saturations maintained at 88-98% in the first 8 weeks of life; ROP was severe enough to require cryotherapy 4 times as often as babies given enough oxygen to maintain saturations of 70-90% Concluded that attempts to keep oxygen saturations at normal "physiological" level may do more harm than good in babies less than 28 weeks gestation**
Tin, W. & Gupta, S. (2007). Optimum oxygen therapy in preterm babies. *Archives of Diseases in Childhood Fetal Neonatal Edition.* 92: F143-F147.	**II**	**Review of evidence regarding oxygen therapy in premature neonates, including relationship between oxygen therapy and development of ROP, BPD and PVL**
Clucas, L., Doyles, L.W., Dawson, J., Donath, S., & Davis, P.G. (2007). Compliance with alarm limits for pulse oximetry in very preterm infants. *Pediatrics*. 119: 1056-1060.	**V**	**Descriptive study of compliance of setting upper alarm limit at a major tertiary centre – the upper alarm limit was too high on the majority of days that infants were in oxygen, suggesting that improvement in compliance with setting appropriate upper limits was required Oxygen toxicity in preterm neonates has been associated with conditions such as BPD and ROP**
Tin, W., Milligan, W.A., Pennefather, P., & Hey, E. (2001). Pulse oximetry, severe retinopathy, and outcome at one year in babies of less than 28 weeks gestation. *Archives of Diseases in Childhood Fetal Neonatal Edition.* 84: F106- F110.	**IV**	**Examination of case notes of 295 babies who were born before 28 weeks gestation ROP developed in babies with oxygen saturations maintained at 88-98% in the first 8 weeks of life; ROP was severe enough to require cryotherapy 4 times as often as babies given enough oxygen to maintain saturations of 70-90% Concluded that attempts to keep oxygen saturations at normal "physiological" level may do more harm than good in babies less than 28 weeks gestation**

Tin, W. & Gupta, S. (2007). Optimum oxygen therapy in preterm babies. *Archives of Diseases in Childhood Fetal Neonatal Edition.* 92: F143-F147.	**II**	**Review of evidence regarding oxygen therapy in premature neonates, including relationship between oxygen therapy and development of ROP, BPD and PVL**