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
PREDICT, Paediatric Research in Emergency Departments International Collaborative (PREDICT). 2018. predict.org.au publications 2016 retrieved 3rd June 2018	VII	**Evidence based guidelines for the management of bronchiolitis in infants up to 12 months in Australasian emergency departments and general paediatric wards. Suggestions include guidelines may still be relevant for children up to 24 months, however with less diagnostic certainty.**
High flow nasal cannula therapy for infants with severe acute bronchiolitis – first experiences. Nogalo, V. Pediatric Pulmonology. Conference: 16th congress of the International Pediatric Pulmonology, 2017, p. S158	VI	**Small trial using HFNC for infants up to 12 months with severe bronchiolitis, outcomes suggested faster improvement of both general and respiratory status. Recommendations included further research to expand understanding and better evaluate the use of HFNC in this patient group.**
Reviewing the guidelines: Management of acute viral bronchiolitis. Da Silva Filho, L.V.R.F. Pediatric Pulmonology. Conference: 16th congress of the International Pediatric Pulmonology, 2017, p. S15-S16	I	**Review of NICE(2015) and AAP(2014) treatment guidelines. Discussion of causative viruses, risk factors, supportive management and treatment recommendations. Recommendations of appropriate physical assessment and history taking. Evidence based recommendations: NOT routinely using lab studies, using 90% SpO2 as cut off for oximetry, considering suction for respiratory distress or feeding difficulties only, NG or IV fluids if tolerating <50-75% of regular volumes, minimising interventions may reduce length of stay & admission rates.**
Using high-flow nasal cannula provided superior results to low-flow oxygen delivery in moderate to severe bronchiolitis. Milani, G.P., Plebani, A.M., Arturi, E., Brusa, D., Esposito, S., Dell'Era, L., Laicini, E.A., Consonni, D., Agostoni, C., Fossali., E.F. International Journal of Paediatrics, 2016, 105(8) p.e368-e372	VI	**Suggests the use of HFNC in moderate to severe bronchiolitis, showed reduced hospital stays and faster improvements in respiratory effort, rates and ability to feed.**

Implementation of bronchiolitis guidelines provide consistent quality of care. Toomey, S. Critical care Medicine. Conference: 46th Critical Care Congress of the Society of Critical Care Medicine, 2016, p.381	V	**Key findings: the use of standardized guidelines, reduced length of stay, reduced the use of non-indicated therapies and encourage the provision of consistent care.**
Red Book, 31st Ed. Committee on Infectious Diseases: American Academy of Pediatrics, 2015, Respiratory Syncytial Virus (RSV) Human Metapneumovirus, Parainfluenza & Rhinovirus Infections	VII	**Clinical manifestations of RSV and Rhinovirus infections, infection control precautions – particularly droplet precautions, treatment and management, diagnostic tests, hand hygiene measures.**
Clinical Practice Guidelines: The Diagnosis, Management & Prevention of Bronchiolitis. Ralston, S.L., Lieberthal, A.S., Meissner, H.C., Alverston, B.K., Baley, J.E., Gadomski, A.M., Johnson, D.W., Light, M.J., Maraqa, n.F., Mendonca, E.A., Phelan, K.J., Zorc, J.J., Stanko-Lopp, D., Brown, M.A., Nathanson, I., Rosenblum, E., Sayles III, S. & Hernandez-Cancio, S. Pediatrics. November 2014, Vol.134, No.5, pge1474-e1502	VI	**Recommendations of diagnostics, recommendations on feed and fluid management, supportive and medication treatment recommendations, infection prevention recommendations including hand washing and use of alcohol based hand rubs.**