Reference ***(include title, author, journal title, year of publication, volume and issue, pages)***	**Evidence level (I-VII)**	**Key findings, outcomes or recommendations**
Australian Commission on Safety and Quality in Health Care (2017). National Safety and Quality Health Service Standards: Guide for Hospitals (2nd Ed.). Sydney: ACSQHC.	*V11*	National Standard outlines criteria: • Clinical governance and quality improvement to support recognition and response systems • Detecting and recognising acute deterioration and escalating care • Responding to acute deterioration

Australian Commission on Safety and Quality in Health Care ACSQHC (2017). National Consensus Statement: Essential elements for recognising and responding to acute physiological deterioration (2nd Ed.). Sydney: ACSQHC.	*V11*	• Identifies a core set of six vital signs: Respiratory rate, SpO_2, Heart rate, BP, Level of Consciousness, Temperature
		• Some patients may not need all the core vital sign observations to be monitored at the same frequency (eg young children may not need BP monitored as often as Resp rate and SpO_2)
		• These parameters should be monitored:
		  ○ at time of admission or initial assessment and when a patient transitions between areas in the hospital
		  ○ at least once per eight-hour shift
		• The frequency of observation should be consistent should be consistent with the clinical situation of the patient and possibly modified according to changes in clinical circumstances

Bonafide CP, Brady PW, Keren R, Conway PH, Marsolo K, Daymont C. (2013). Development of heart and respiratory rate percentile curves for hospitalized children. *Pediatrics*,131 (4), e1150-e1157).	IV	• Large cross-sectional study 14014 hospitalised children • Heart Rate and Respiratory Rate percentiles established • ViCTOR charts: Red (Purple) zone either 1st or 99th percentile according to the upper or lower limit of parameter. Orange zone 5th & 95th percentiles.

Bonafide, C. P., Localio, A. R., Holmes, J. H., Nadkarni, V. M., Stemler, S., MacMurchy, M.,. Keren, R. (2017). Video Analysis of Factors Associated With Response Time to Physiologic Monitor Alarms in a Children's Hospital. JAMA Pediatrics, 171(6), 524-531.	IV	• Retrospective cohort study evaluating 38 nurses and response time to alarms
		• The adjusted median response time among nurses was 10.4 minutes (95%CI, 5.0-15.8) & varied:
		  ○ the patient was on complex care service (5.3 minutes [95%CI, 1.4-9.3] vs 11.1 minutes [95%CI, 5.6-16.6] among general pediatrics patients),
		  ○ family members were absent from the patient's bedside (6.3 minutes [95%CI, 2.2-10.4] vs 11.7 minutes [95%CI, 5.9-17.4] when family present),
		  ○ nurse had less than 1 year of experience (4.4 minutes [95%CI, 3.4-5.5] vs 8.8 minutes [95%CI, 7.2-10.5] for nurses with 1 or more years of experience),
		  ○ if there were prior alarms requiring intervention (5.5 minutes [95%CI, 1.5-9.5] vs 10.7 minutes [5.2-16.2] for patients without intervention),
		• Each hour that elapsed during a nurse's shift was associated with a 15%longer response time (6.1 minutes [95%CI, 2.8-9.3] in hour 2 vs 14.1 minutes [95%CI, 6.4-21.7] in hour 8)

Dionne, J., Abitbol, C., & Flynn, J. (2012). Hypertension in infancy: diagnosis, management and outcome. Pediatric Nephrology, 27(1), 17-32. Dionne, J., Abitbol, C., & Flynn, J. (2012). Erratum to: Hypertension in infancy: diagnosis, management and outcome. Pediatric Nephrology, 27(1), 159-160.	IV	• Estimated BP values, after 2 weeks of age in infants from 26 to 44 weeks postconceptional age • ViCTOR charts: High BP – (orange zone only) 99th centile +5mmHg
Graham, K. C., & Cvach, M. (2010). Monitor alarm fatigue: Standardizing use of physiological monitors and decreasing nuisance alarms. *American Journal of Critical Care*. 19(1), 28-34.	1V	• QI initiative to improve management of monitor alarms in an adult HDU environment, including revision of monitor alarm defaults, careful assessment of monitor alarm parameters limits each shift & implementation of a monitor policy • Critical monitor alarms were reduced 43%
Haque, I., & Zaritsky, A. (2007). Analysis of the evidence for the lower limit of systolic and mean arterial pressure in children. Pediatric Critical Care Medicine, 8(2), 138-144.	1V	• Developed new estimates of the fifth percentile SBP for children 1–17 yrs of age from analysis of published blood pressure data from the Task Force on Hypertension. • SBP is significantly affected by height • ViCTOR charts: Low BP (Purple zone only) based on 5th percentile for Systolic BP and 50th height percentile
McKay, H., Mitchell, I. A., Sinn, K., Mugridge, H., Lafferty, T., Van Leuvan, C., Mamootil, S. & Abdel-Latif, M. E. (2013). Effect of a multifaceted intervention on documentation of vital signs and staff communication regarding deteriorating paediatric patients. *Journal of Paediatrics & Child Health. 49*(1), 48-56.	1V	• Prospective controlled before and after study evaluating introduction of newly designed age specific paediatric observation charts (colour coded vital signs resulting in estimation of Paediatric Early Warning Score) and education intervention • Significant improvement in documentation of vital signs, communication from nurses to doctors following clinical instability and time to medical review
National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents (2004). *Pediatrics*, *114* (2 suppl 4th report), *555*– 576.	V	• Tables determining normal and abnormal BP values based on gender, age and height percentiles. Values derived from normal healthy children. • ViCTOR charts: High systolic BP limits (Orange zone) were based on the 99th percentile of height + 5mmHg for respective ages groups (equivalent to cut-off for stage 2 hypertension)
Paine, C. W., Goel, V. V., Ely, E., Stave, C. D., Stemler, S., Zander, M., & Bonafide, C. P. (2016). Systematic Review of Physiologic Monitor Alarm Characteristics and Pragmatic Interventions to Reduce Alarm Frequency. Journal of Hospital Medicine, 11(2), 136-144.	V	• Systematic review of 24 observational studies evaluating alarm characteristics, response times and 8 studies evaluating interventions • High alarm exposure associated with longer response time in 2 studies • Strategies to reduce alarm fatigue included widening alarm parameters, instituting alarm delays, using disposable ECG wires and changing ECG electrodes daily

Royal College of Nursing (2017). Standards for assessing, measuring and monitoring vital signs in infants, children and young people. RCN: London .	V11	Describes 5 standards and criteria to help guide local procedures in relation to vital sign monitoring which included: • Education and training, teaching children, young people and parents and carers, assessing & measuring vital signs, medical devices & equipment, record keeping
Teasdale, D. (2009). Physiological monitoring. In, Dixon, M., Crawford, D., Teasdale, D., & Murphy, J. *Nursing the highly dependent child or infant*. Chichester: Blackwell Publishing Ltd.	VII	• Clinical guide about caring for children receiving high dependency care • Identifies indications for continuous cardio-respiratory monitoring and continuous pulse oximetry