

Queensland Clinical Guidelines

Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

Guideline Supplement: Neonatal resuscitation

Table of Contents

1	Introduction	3
1.1	Funding	3
1.2	Conflict of interest	3
1.3	Development process	3
1.4	Summary of changes	3
2	Methodology	4
2.1	Topic identification	4
2.2	Scope	4
2.3	Clinical questions	4
2.4	Search strategy	5
2.4.1	Keywords	5
2.5	Consultation	6
2.6	Endorsement	6
2.7	Citation	6
3	Levels of evidence	7
3.1	Summary recommendations	8
4	Implementation	9
4.1	Guideline resources	9
4.2	Suggested resources	9
4.3	Implementation measures	9
4.3.1	Implications for implementation	9
4.3.2	QCG measures	9
4.3.3	Hospital and Health Service measures	9
4.4	Quality measures	10
4.5	Areas for future research	10
4.6	Safety and quality	11
	References	19

List of Tables

Table 1. Summary of change	3
Table 2. Scope framework	4
Table 3. Basic search strategy	5
Table 4. Major guideline development processes	6
Table 5. Quality of evidence	7
Table 6. Strength of recommendations	7
Table 7. Summary recommendations	8
Table 8. NSQHS Standard 1	10
Table 9. Clinical quality measures	10
Table 10. NSQHS/EQuIP National Criteria	11

© State of Queensland (Queensland Health) 2022



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives V4.0 International licence. In essence, you are free to copy and communicate the work in its current form for non-commercial purposes, as long as you attribute Queensland Clinical Guidelines, Queensland Health and abide by the licence terms. You may not alter or adapt the work in any way. To view a copy of this licence, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>

For further information contact Queensland Clinical Guidelines, RBWH Post Office, Herston Qld 4029, email Guidelines@health.qld.gov.au. For permissions beyond the scope of this licence contact: Intellectual Property Officer, Queensland Health, email ip_officer@health.qld.gov.au

1 Introduction

This document is a supplement to the Queensland Clinical Guideline (QCG) *Neonatal resuscitation*. It provides supplementary information regarding guideline development, makes summary recommendations, suggests measures to assist implementation and quality activities and summarises changes (if any) to the guideline since original publication. Refer to the guideline for abbreviations, acronyms, flow charts and acknowledgements.

1.1 Funding

The development of this guideline was funded by Healthcare Improvement Unit, Queensland Health. Consumer representatives were paid a standard fee. Other working party members participated on a voluntary basis.

1.2 Conflict of interest

Declarations of conflict of interest were sought from working party members as per the Queensland Clinical Guidelines [Conflict of Interest](#) statement. No conflict of interest was identified.

1.3 Development process

This version of the guideline followed the QCG [peer review](#) process.

1.4 Summary of changes

Queensland clinical guidelines are reviewed every 5 years or earlier if significant new evidence emerges. Table 1 provides a summary of changes made to the guidelines since original publication.

Table 1. Summary of change

Publication date <i>Endorsed by:</i>	Identifier	Summary of major change
November 2009	NN0911.5-V1-R11	First publication
October 2011	MN11.5-V2-R16	Full review
July 2016	MN16.5-V5-R21	Full review
October 2022 <i>Queensland Maternity and Neonatal Clinical Network</i>	MN22.5-V6-R27	<ul style="list-style-type: none"> • Peer review. • Minor update to formatting. • Reworded relevant sections and referenced Queensland Clinical Guidelines <i>Standard care</i>, <i>Hypoglycaemia–newborn</i>, <i>Hypoxic ischaemic encephalopathy (HIE)</i> and <i>NeomedQ Adrenaline (epinephrine)</i> • Updated definitions and terminology (e.g. supraglottic airway (LMA™)) • Changed flow of guideline and consolidated relevant information together (e.g. clinicians, equipment, temperature management) • Updated guidance where applicable (e.g. timing of umbilical cord clamping, management of meconium stained liquor) • Removed Appendix B Oxygen/air mix and target oxygen saturation and Appendix C Endotracheal tube intubation, as duplication of information in guideline and also available as separate resources

2 Methodology

Queensland Clinical Guidelines (QCG) follows a rigorous process of guideline development. This process was endorsed by the Queensland Health Patient Safety and Quality Executive Committee in December 2009. The guidelines are best described as 'evidence informed consensus guidelines' and draw from the evidence base of existing national and international guidelines and the expert opinion of the working party.

2.1 Topic identification

The topic was identified as a priority by the Statewide Maternity and Neonatal Clinical Network at a forum in 2009.

2.2 Scope

The scope of the guideline was determined using the following framework.

Table 2. Scope framework

Scope framework	
Population	Newborn baby
Purpose	Identify relevant evidence related to: <ul style="list-style-type: none"> • Identification and management of a newborn baby requiring resuscitation
Outcome	Support: <ul style="list-style-type: none"> • Early identification of antenatal and peripartum risk factors • Accurate assessment of the newborn baby • Best practice management in neonatal resuscitation
Exclusions	<ul style="list-style-type: none"> • Care considered standard or usual as specified in the Queensland Clinical Guideline: <i>Standard care</i> • On-going care and management of the baby • Stabilisation of the baby prior to transfer • Respiratory distress • Hypoxic-ischaemic encephalopathy

2.3 Clinical questions

The following clinical questions were generated to inform the guideline scope and purpose:

- What are the risk factors for neonatal resuscitation?
- What preparation is required?
- How is the baby assessed and managed?
- What interventions are required to support perinatal transition to extra-uterine life?
- What special circumstances and their management are there to consider?
- What after care is required?
- What are the ethical considerations in neonatal resuscitation?

2.4 Search strategy

A search of the literature was conducted during April 2021–June 2021. A further search was conducted in March 2022. The QCG search strategy is an iterative process that is repeated and amended as guideline development occurs (e.g. if additional areas of interest emerge, areas of contention requiring more extensive review are identified or new evidence is identified). All guidelines are developed using a basic search strategy. This involves both a formal and informal approach.

Table 3. Basic search strategy

Step		Consideration
1.	Review clinical guidelines developed by other reputable groups relevant to the clinical speciality	<ul style="list-style-type: none"> • This may include national and/or international guideline writers, professional organisations, government organisations, state based groups. • This assists the guideline writer to identify: <ul style="list-style-type: none"> ○ The scope and breadth of what others have found useful for clinicians and informs the scope and clinical question development ○ Identify resources commonly found in guidelines such as flowcharts, audit criteria and levels of evidence ○ Identify common search and key terms ○ Identify common and key references
2.	Undertake a foundation search using key search terms	<ul style="list-style-type: none"> • Construct a search using common search and key terms identified during Step 1 above • Search the following databases <ul style="list-style-type: none"> ○ PubMed ○ CINAHL ○ Medline ○ Cochrane Central Register of Controlled Trials ○ EBSCO ○ Embase • Studies published in English less than or equal to 5 years previous are reviewed in the first instance. Other years may be searched as are relevant to the topic • Save and document the search • Add other databases as relevant to the clinical area
3.	Develop search word list for each clinical question	<ul style="list-style-type: none"> • This may require the development of clinical sub-questions beyond those identified in the initial scope • Using the foundation search performed at Step 2 as the baseline search framework, refine the search using the specific terms developed for the clinical question • Save and document the search strategy undertaken for each clinical question
4.	Other search strategies	<ul style="list-style-type: none"> • Search the reference lists of reports and articles for additional studies • Access other sources for relevant literature <ul style="list-style-type: none"> ○ Known resource sites ○ Internet search engines ○ Relevant textbooks

2.4.1 Keywords

The following keywords were used in the basic search strategy: Key words: Neonatal, newborn, baby, resuscitation, oximetry, oxygen saturation, supraglottic airway, deferred cord clamping, delayed cord clamping, temperature, term, preterm, cardiac compressions, adrenaline, epinephrine, intubation, endotracheal tube, ETT, mask, Queensland Clinical Guidelines, Queensland Health Guidelines, QCG, QH, Qld Health

Other keywords may have been used for specific aspects of the guideline.

2.5 Consultation

Major consultative and development processes occurred between April 2021 and June 2021.

Table 4. Major guideline development processes

Process	Activity
Original development	<ul style="list-style-type: none"> • Original consultative and development processes occurred between October 2015 and January 2016 • This included formation of a working party and statewide consultation as per usual QCG process • A survey of clinician opinion was also conducted
Decision for peer review	<ul style="list-style-type: none"> • A review of the guideline scope, clinical questions and current literature was undertaken in April–June 2021 • Areas of clinical practice change were identified • Clinical lead <ul style="list-style-type: none"> ◦ Reviewed the previous scope and version of the guideline ◦ Reviewed identified areas of clinical practice change ◦ Confirmed aspects of the guideline for update and new inclusions ◦ Reached consensus agreement that a peer review process was appropriate
Consultation	<ul style="list-style-type: none"> • Expert clinicians and a consumer representative were identified by the clinical leads and invited to peer review the updated guideline in June 2022 • All invited members accepted

2.6 Endorsement

The guideline was endorsed by the:

- Queensland Clinical Guidelines Steering Committee in September 2022
- Queensland Maternity and Neonatal Clinical Network in October 2022

2.7 Citation

The recommended citation of Queensland Clinical Guidelines is in the following format:

Queensland Clinical Guidelines. **[Insert Guideline Title]**. Guideline No. **[Insert Guideline Number]**. Queensland Health. **[Insert Year of Publication]**. Available from: www.health.qld.gov.au/qcg.

EXAMPLE:

Queensland Clinical Guidelines. Normal birth. Guideline No. MN17.25-V3-R22. Queensland Health 2017. Available from: www.health.qld.gov.au/qcg.

3 Levels of evidence

Summary recommendations were informed by:

- Review of literature
- Expertise and experience of clinical leads and working party
- Statewide consultation
- Established Queensland Clinical Guidelines development process
- Levels of evidence using the GRADE system was used to inform the summary recommendations.¹

Note that the 'good practice' definition in Table 6 Strength of recommendations relates to forms of evidence that arise from the clinical experience of the guideline's clinical lead(s) and working party.

Table 5. Quality of evidence

GRADE Levels of evidence	
High	Very confident the true effect lies close to the estimate of effect
Moderate	Moderately confident in effect estimate. True effect likely to be close to the estimate of effect, but possibility it is substantially different.
Low	Limited confidence in effect estimate. True effect may be substantially different from the estimate of effect.
Very low	Little confidence in effect estimate. True effect likely to be substantially different from the estimate effect.

Table 6. Strength of recommendations

GRADE Strength of recommendations	
Strong	Confident desirable effects of an intervention outweigh its undesirable effects (strong recommendation for an intervention) or that undesirable effects of an intervention outweigh its desirable effects (strong recommendation against an intervention)
Weak	Desirable effects probably outweigh undesirable effects (weak recommendation for an intervention) or undesirable effects probably outweigh desirable effects (weak recommendation against an intervention), but there is uncertainty
Good practice	Recommendation for best practice based on the experience of the guideline development group.

3.1 Summary recommendations

Summary recommendations and levels of evidence are outlined in Table 7. Summary recommendations

Table 7. Summary recommendations

Recommendations		GRADE of evidence
1.	Conduct clinical training at least annually	Good practice
2.	Ensure resuscitation equipment and medications are available for all births, and checked on a regular basis	Good practice
3.	For infants born at less than 34 weeks gestational age who do require immediate resuscitation after birth, ANZCOR suggests deferring clamping the cord for at least 30 seconds ²	Weak recommendation, low certainty evidence
4.	For term and late preterm infants born at ≥ 34 weeks gestation who are vigorous or deemed not to require immediate resuscitation at birth, ANZCOR suggests later (deferred) clamping of the cord at ≥ 60 seconds ²	Weak recommendation, low certainty evidence
5.	Use pulse oximetry on right hand or wrist to measure oxygen saturation	Good practice
6.	If supplemental oxygen is used, titrate to keep oxygen saturations below 90% in the first 10 minutes of life	Good practice
7.	ANZCOR recommends that non-asphyxiated newborns of all gestations should be maintained with a temperature of between 36.5 °C and 37.5°C ²	Strong recommendation, very low certainty evidence
8.	Place preterm baby less than 28 weeks in a polyethylene bag to manage temperature during resuscitation	Good practice
9.	For newborns who are vigorous after exposure to meconium-stained amniotic liquor (breathing or crying, good muscle tone), routine suctioning is discouraged because it does not alter their outcome and may cause harm ³	Good practice
10.	Consider a supraglottic airway (laryngeal mask airway™) when face mask or endotracheal tube ventilation unsuccessful or unachievable	Good practice
11.	If required, use cushioned rim masks	Good practice
12.	For term babies and near-term newborn infants ANZCOR suggests that air should be used initially with supplemental air reserved for those whose saturations do not meet the lower end of the targets despite respiratory support ³	Weak recommendation, low certainty evidence
13.	If baby is ventilated via ETT and has spontaneous circulation, use a paediatric end-tidal carbon dioxide detector to confirm tube placement	Good practice
14.	Measure cord blood gases in every resuscitated baby	Good practice
15.	Take temperature of resuscitated baby on admission to neonatal unit or postnatal ward	Good practice
16.	Use a standard resuscitation form for record keeping	Good practice
17.	If resuscitation efforts are withdrawn, focus on comfort and dignity of baby	Good practice

4 Implementation

This guideline is applicable to all Queensland public and private maternity facilities. It can be downloaded in Portable Document Format (PDF) from www.health.qld.gov.au/qcg

4.1 Guideline resources

The following guideline components are provided on the website as separate resources:

- Flowchart: ANZCOR newborn life support
- Flowchart: Neonatal resuscitation reference chart
- Education resource: Neonatal resuscitation
- Knowledge assessment: Neonatal resuscitation
- Parent information: Newborn baby resuscitation
- Checklist: Neonatal resuscitation trolley

4.2 Suggested resources

During the development process stakeholders identified additional resources with potential to complement and enhance guideline implementation and application. The following resources have not been sourced or developed by QCG but are suggested as complimentary to the guideline:

- Neonatal resuscitation training program
- Simulation training scenarios

4.3 Implementation measures

Suggested activities to assist implementation of the guideline are outlined below.

4.3.1 Implications for implementation

The following areas may have implications for local implementation of the guideline recommendations. It is suggested they be considered for successful guideline implementation.

- Economic considerations including opportunity costs
- Human resource requirements including clinician skill mix and scope of practice
- Clinician education and training
- Equipment and consumables purchase and maintenance
- Consumer acceptance
- Model of care and service delivery

4.3.2 QCG measures

- Notify Chief Executive Officer and relevant stakeholders
- Monitor emerging new evidence to ensure guideline reflects contemporaneous practice
- Capture user feedback
- Record and manage change requests

4.3.3 Hospital and Health Service measures

Initiate, promote and support local systems and processes to integrate the guideline into clinical practice, including:

- Hospital and Health Service (HHS) Executive endorse the guidelines and their use in the HHS and communicate this to staff
- Promote the introduction of the guideline to relevant health care professionals
- Support education and training opportunities relevant to the guideline and service capabilities
- Align clinical care with guideline recommendations
- Undertake relevant implementation activities as outlined in the *Guideline implementation checklist* available at www.health.qld.gov.au/qcg

4.4 Quality measures

Auditing of guideline recommendations and content assists with identifying quality of care issues and provides evidence of compliance with the National Safety and Quality Health Service (NSQHS) Standards⁴ [Refer to Table 7. NSQHS Standard 1]. Suggested audit and quality measures are identified in Table 8. Clinical quality measures.

Table 8. NSQHS Standard 1

NSQHS Standard 1: Clinical governance	
Clinical performance and effectiveness	
Criterion 1.27:	Actions required:
Evidence based care	a. Provide clinicians with ready access to best-practice guidelines, integrated care pathways, clinical pathways and decision support tools relevant to their clinical practice
	b. Support clinicians to use the best available evidence, including relevant clinical care standards developed by the Australian Commission on Safety and Quality in Health Care

The following clinical quality measures are suggested:

Table 9. Clinical quality measures

No	Audit criteria	Guideline section
1.	What proportion of well vigorous babies (greater than or equal to 34 weeks) not requiring resuscitation have deferred cord clamping greater than 60 seconds?	Section 3.1
2.	What proportion of babies maintain a temperature of 36.5–37.5 °C during resuscitation?	Section 3.2
3.	What proportion of babies have their oxygen saturation monitored during resuscitation following birth?	Sections 3.4 and 3.5
4.	What proportion of term babies achieve normal oxygen saturation by 10 minutes of age?	Section 3.4
5.	What percentage of babies requiring intubation with endotracheal tube or supraglottic airway (e.g. laryngeal mask airway™), and IPPV have an end CO ₂ device to ensure correct tube or mask placement?	Sections 4.2 and 4.6.2
6.	What proportion of preterm babies have resuscitation commenced in 21–30% oxygen?	Section 4.1 and 8.1
7.	What proportion of resuscitated babies have an arterial cord blood gas measurement?	Section 9.1
8.	What percentage of babies have their temperature recorded on admission to the postnatal ward or neonatal unit?	Section 9.3

4.5 Areas for future research

During development the following areas were identified as having limited or poor quality evidence to inform clinical decision making. Further research in these areas may be useful.

- Cord clamp timing for babies requiring resuscitation
- Effectiveness of supraglottic airway (e.g. laryngeal mask airway™) compared with face mask ventilation in term and preterm babies
- Feasibility of skin-to-skin contact during resuscitation

4.6 Safety and quality

In conjunction with the Queensland Clinical Guideline *Standard care*⁵, implementation of this guideline provides evidence of compliance with the National Safety and Quality Health Service Standards.⁴

Table 10. NSQHS/EQuIPNational Criteria

NSQHS/EQuIPNational Criteria	Actions required	☑ Evidence of compliance
NSQHS Standard 1: Clinical governance		
Patient safety and quality systems Safety and quality systems are integrated with governance processes to enable organisations to actively manage and improve the safety and quality of health care for patients	Diversity and high risk groups 1.15 The health service organisation: a. Identifies the diversity of the consumers using its services b. Identifies groups of patients using its services who are at higher risk of harm c. Incorporates information on the diversity of its consumers and higher-risk groups into the planning and delivery of care	☑ Assessment and care appropriate to the cohort of patients is identified in the guideline ☑ High risk groups are identified in the guideline ☑ The guideline is based on the best available evidence
Clinical performance and effectiveness The workforce has the right qualifications, skills and supervision to provide safe, high-quality health care to patients	Evidence based care 1.27 The health service organisation has processes that: a. Provide clinicians with ready access to best-practice guidelines, integrated care pathways, clinical pathways and decision support tools relevant to their clinical practice b. Support clinicians to use the best available evidence, including relevant clinical care standards developed by the Australian Commission on Safety and Quality in Health Care	☑ Queensland Clinical Guidelines is funded by Queensland Health to develop clinical guidelines relevant to the service line to guide safe patient care across Queensland ☑ The guideline provides evidence-based and best practice recommendations for care ☑ The guideline is endorsed for use in Queensland Health facilities ☑ A desktop icon is available on every Queensland Health computer desktop to provide quick and easy access to the guideline
	Performance management 1.22 The health service organisation has valid and reliable performance review processes that: a. Require members of the workforce to regularly take part in a review of their performance b. Identify needs for training and development in safety and quality c. Incorporate information on training requirements into the organisation's training system	☑ The guideline has accompanying educational resources to support ongoing safety and quality education for identified professional and personal development. The resources are freely available on the internet http://www.health.qld.gov.au/qcg

NSQHS/EQIPNational Criteria	Actions required	☑ Evidence of compliance
NSQHS Standard 1: Clinical governance		
Patient safety and quality systems Safety and quality systems are integrated with governance processes to enable organisations to actively manage and improve the safety and quality of health care for patients	Policies and procedures 1.7 The health service organisation uses a risk management approach to: a. Set out, review, and maintain the currency and effectiveness of, policies, procedures and protocols b. Monitor and take action to improve adherence to policies, procedures and protocols c. Review compliance with legislation, regulation and jurisdictional requirements	☑ QCG has established processes to review and maintain all guidelines and associated resources ☑ Change requests are managed to ensure currency of published guidelines ☑ Implementation tools and checklist are provided to assist with adherence to guidelines ☑ Suggested audit criteria are provided in guideline supplement ☑ The guidelines comply with legislation, regulation and jurisdictional requirements
NSQHS Standard 2: Partnering with Consumers		
Health literacy Health service organisations communicate with consumers in a way that supports effective partnerships	Communication that supports effective partnerships 2.8 The health service organisation uses communication mechanisms that are tailored to the diversity of the consumers who use its services and, where relevant, the diversity of the local community 2.9 Where information for patients, carers, families and consumers about health and health services is developed internally, the organisation involves consumers in its development and review 2.10 The health service organisation supports clinicians to communicate with patients, carers, families and consumers about health and health care so that: a. Information is provided in a way that meets the needs of patients, carers, families and consumers b. Information provided is easy to understand and use c. The clinical needs of patients are addressed while they are in the health service organisation d. Information needs for ongoing care are provided on discharge	☑ Consumer consultation was sought and obtained during the development of the guideline. Refer to the acknowledgement section of the guideline for details ☑ Consumer information is developed to align with the guideline and included consumer involvement during development and review ☑ The consumer information was developed using plain English and with attention to literacy and ease of reading needs of the consumer
Partnering with consumers in organisational design and governance Consumers are partners in the design and governance of the organisation	Partnerships in healthcare governance planning, design, measurement and evaluation 2.11 The health service organisation: a. Involves consumers in partnerships in the governance of, and to design, measure and evaluate, health care b. Has processes so that the consumers involved in these partnerships reflect the diversity of consumers who use the service or, where relevant, the diversity of the local community 2.14 The health service organisation works in partnership with consumers to incorporate their views and experiences into training and education for the workforce	☑ Consumers are members of guideline working parties ☑ The guideline is based on the best available evidence ☑ The guidelines and consumer information are endorsed by the QCG and Queensland Statewide Maternity and Neonatal Clinical Network Steering Committees which includes consumer membership

NSQHS Criteria	Actions required	☑ Evidence of compliance
NSQHS Standard 2: Partnering with Consumers		
Partnering with consumers in their own care Patients are partners in their own care to the extent that they choose	Healthcare rights and informed consent 2.4 The health service organisation ensures that its informed consent processes comply with legislation and best practice 2.5 The health service organisation has processes to identify: a. The capacity of a patient to make decisions about their own care b. A substitute decision-maker if a patient does not have the capacity to make decisions for themselves	☑ This guideline and consumer information provides information for consumers to make informed decisions ☑ This guideline promotes informed consent
	Shared decisions and planning care 2.6 The health service organisation has processes for clinicians to partner with patients and/or their substitute decision-maker to plan, communicate, set goals, and make decisions about their current and future care 2.7 The health service organisation supports the workforce to form partnerships with patients and carers so that patients can be actively involved in their own care	☑ Consumer information is available for this guideline ☑ Consumers are members of guideline working parties
NSQHS Standard 3: Infection prevention and control systems		
Clinical governance and quality improvement to prevent and control healthcare-associated infections, and support antimicrobial stewardship Systems are in place to support and promote prevention and control of healthcare-associated infections, and improve antimicrobial stewardship.	Integrating clinical governance 3.1 The workforce uses the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for healthcare-associated infections and antimicrobial stewardship b. Managing risks associated with healthcare-associated infections and antimicrobial stewardship	☑ The guideline provides evidence-based and best practice recommendations for care ☑ Recommendations for use of antimicrobials are evidence based
Infection prevention and control systems Patients presenting with, or with risk factors for, infection or colonisation with an organism of local, national or global significance are identified promptly, and receive the necessary management and treatment.	Standard and transmission-based precautions 3.6 Clinicians assess infection risks and use transmission-based precautions based on the risk of transmission of infectious agents, and consider: a. Patients' risks, which are evaluated at referral, on admission or on presentation for care, and re-evaluated when clinically required during care	☑ The guideline provides evidence-based and best practice recommendations for care ☑ Assessment and care appropriate to the cohort of patients is identified in the guideline ☑ High risk groups are identified in the guideline if applicable
Antimicrobial stewardship Systems are implemented for safe and appropriate prescribing and use of antimicrobials as part of an antimicrobial stewardship program	Antimicrobial stewardship 3.15 The health service organisation has an antimicrobial stewardship program that: a. Includes an antimicrobial stewardship policy b. Provides access to, and promotes the use of, current evidence-based Australian therapeutic guidelines and resources on antimicrobial prescribing	☑ The guideline provides evidence-based and best practice recommendations for care ☑ Recommendations for use of antimicrobials are evidence based ☑ If applicable, Australian therapeutic guidelines and resources were used to develop guideline recommendations

NSQHS/EQUIPNational Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
NSQHS Standard 4: Medication safety		
Clinical governance and quality improvement to support medication management Organisation-wide systems are used to support and promote safety for procuring, supplying, storing, compounding, manufacturing, prescribing, dispensing, administering and monitoring the effects of medicines	Integrating clinical governance 4.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for medication management b. Managing risks associated with medication management c. Identifying training requirements for medication management	<input checked="" type="checkbox"/> The guideline provides current evidence based recommendations about medication
NSQHS Standard 5: Comprehensive care		
Clinical governance and quality improvement to support comprehensive care Systems are in place to support clinicians to deliver comprehensive care	Integrating clinical governance 5.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for comprehensive care b. Managing risks associated with comprehensive care c. Identifying training requirements to deliver comprehensive care Partnering with consumers 5.3 Clinicians use organisational processes from the Partnering with Consumers Standard when providing comprehensive care to: a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making	<input checked="" type="checkbox"/> The guideline has accompanying educational resources to support ongoing safety and quality education for identified professional and personal development. The resources are freely available on the internet http://www.health.qld.gov.au/qcg <input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for care <input checked="" type="checkbox"/> Consumer information is developed for the guideline

NSQHS/EQUIPNational Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
NSQHS Standard 6: Communicating for safety		
<p>Clinical governance and quality improvement to support effective communication</p> <p>Systems are in place for effective and coordinated communication that supports the delivery of continuous and safe care for patients</p>	<p>Integrating clinical governance</p> <p>6.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when:</p> <ul style="list-style-type: none"> a. Implementing policies and procedures to support effective clinical communication b. Managing risks associated with clinical communication c. Identifying training requirements for effective and coordinated clinical communication <p>Partnering with consumers</p> <p>6.3 Clinicians use organisational processes from the Partnering with Consumers Standard to effectively communicate with patients, carers and families during high-risk situations to:</p> <ul style="list-style-type: none"> a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making <p>Organisational processes to support effective communication</p> <p>6.4 The health service organisation has clinical communications processes to support effective communication when:</p> <ul style="list-style-type: none"> a. Identification and procedure matching should occur b. All or part of a patient's care is transferred within the organisation, between multidisciplinary teams, between clinicians or between organisations; and on discharge c. Critical information about a patient's care, including information on risks, emerges or changes 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Requirements for effective clinical communication by clinicians are identified <input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for communication between clinicians <input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for communication with patients, carers and families <input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for discharge planning and follow –up care
<p>Communication of critical information</p> <p>Systems to effectively communicate critical information and risks when they emerge or change are used to ensure safe patient care</p>	<p>Communicating critical information</p> <p>6.9 Clinicians and multidisciplinary teams use clinical communication processes to effectively communicate critical information, alerts and risks, in a timely way, when they emerge or change to:</p> <ul style="list-style-type: none"> a. Clinicians who can make decisions about care b. Patients, carers and families, in accordance with the wishes of the patient <p>6.10 The health service organisation ensures that there are communication processes for patients, carers and families to directly communicate critical information and risks about care to clinicians</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Requirements for effective clinical communication of critical information are identified <input checked="" type="checkbox"/> Requirements for escalation of care are identified

NSQHS/EQUIPNational Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
NSQHS Standard 6: Communicating for safety (continued)		
Correct identification and procedure matching Systems to maintain the identity of the patient are used to ensure that the patient receives the care intended for them	Correct identification and procedure matching 6.5 The health service organisation: a. Defines approved identifiers for patients according to best-practice guidelines b. Requires at least three approved identifiers on registration and admission; when care, medication, therapy and other services are provided; and when clinical handover, transfer or discharge documentation is generated	<input checked="" type="checkbox"/> Requirements for safe and for correct patient identification are identified
Communicating at clinical handover Processes for structured clinical handover are used to effectively communicate about the health care of patients	Clinical handover 6.7 The health service organisation, in collaboration with clinicians, defines the: a. Minimum information content to be communicated at clinical handover, based on best-practice guidelines b. Risks relevant to the service context and the particular needs of patients, carers and families c. Clinicians who are involved in the clinical handover 6.8 Clinicians use structured clinical handover processes that include: a. Preparing and scheduling clinical handover b. Having the relevant information at clinical handover c. Organising relevant clinicians and others to participate in clinical handover d. Being aware of the patient's goals and preferences e. Supporting patients, carers and families to be involved in clinical handover, in accordance with the wishes of the patient f. Ensuring that clinical handover results in the transfer of responsibility and accountability for care	<input checked="" type="checkbox"/> The guideline acknowledges the need for local protocols to support transfer of information, professional responsibility and accountability for some or all aspects of care

NSQHS/EQUIP National Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
NSQHS Standard 7: Blood management		
Clinical governance and quality improvement to support blood management Organisation-wide governance and quality improvement systems are used to ensure safe and high-quality care of patients' own blood, and to ensure that blood product requirements are met	Integrating clinical governance 7.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for blood management b. Managing risks associated with blood management c. Identifying training requirements for blood management	<input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for use of blood products
Prescribing and clinical use of blood and blood products The clinical use of blood and blood products is appropriate, and strategies are used to reduce the risks associated with transfusion	Optimising and conserving patients' own blood 7.4 Clinicians use the blood and blood products processes to manage the need for, and minimise the inappropriate use of, blood and blood products by: a. Optimising patients' own red cell mass, haemoglobin and iron stores b. Identifying and managing patients with, or at risk of, bleeding c. Determining the clinical need for blood and blood products, and related risks Prescribing and administering blood and blood products 7.6 The health service organisation supports clinicians to prescribe and administer blood and blood products appropriately, in accordance with national guidelines and national criteria	<input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for use of blood products <input checked="" type="checkbox"/> The guideline is consistent with recommendations of national guidelines

NSQHS/EQUIPNational Criteria	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
NSQHS Standard 8: Recognising and responding to acute deterioration		
<p>Clinical governance and quality improvement to support recognition and response systems</p> <p>Organisation-wide systems are used to support and promote detection and recognition of acute deterioration, and the response to patients whose condition acutely deteriorates</p>	<p>Integrating clinical governance</p> <p>8.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when:</p> <ul style="list-style-type: none"> a. Implementing policies and procedures for recognising and responding to acute deterioration b. Managing risks associated with recognising and responding to acute deterioration c. Identifying training requirements for recognising and responding to acute deterioration <p>Partnering with consumers</p> <p>8.3 Clinicians use organisational processes from the Partnering with Consumers Standard when recognising and responding to acute deterioration to:</p> <ul style="list-style-type: none"> a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making <p>Recognising acute deterioration</p> <p>8.4 The health service organisation has processes for clinicians to detect acute physiological deterioration that require clinicians to:</p> <ul style="list-style-type: none"> a. Document individualised vital sign monitoring plans b. Monitor patients as required by their individualised monitoring plan c. Graphically document and track changes in agreed observations to detect acute deterioration over time, as appropriate for the patient 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> The guideline is consistent with National Consensus statements recommendations <input checked="" type="checkbox"/> The guideline recommends use of tools consistent with the principles of recognising and responding to clinical deterioration <input checked="" type="checkbox"/> Consumer information is developed for the guideline

References

1. Australian Resuscitation Council. ANZCOR Guideline 1.4 – Principles and format for developing guidelines [Internet]. 2017 [cited 2022 May 24]. Available from: <https://resus.org.au>.
2. Australian Resuscitation Council. ANZCOR Guideline 13.1 – Introduction to resuscitation of the newborn. [Internet]. 2021 [cited 2021 June 1]. Available from: <https://resus.org.au>.
3. Australian Resuscitation Council. ANZCOR Guideline 13.4 – Airway management and mask ventilation of the newborn. [Internet]. 2021 [cited 2021 June 1]. Available from: <https://resus.org.au>.
4. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards. [Internet]. 2017 [cited 2021 June 30]. Available from: <https://www.safetyandquality.gov.au>.
5. Queensland Clinical Guidelines. Standard care. Guideline No. MN18.50-V1-R23. [Internet]. Queensland Health. 2018. [cited 2021 June 30]. Available from: <https://www.health.qld.gov.au/qcg>.