

# Queensland Clinical Guidelines

*Translating evidence into best clinical practice*

## Maternity and Neonatal **Clinical Guideline**

### Guideline supplement: Hypertension and pregnancy

## 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 .....	4
2	Methodology .....	6
2.1	Topic identification .....	6
2.2	Scope .....	6
2.3	Clinical questions .....	6
2.4	Search strategy .....	7
2.4.1	Keywords .....	7
2.5	Consultation .....	8
2.6	Endorsement .....	8
2.7	Citation .....	8
3	Levels of evidence .....	9
3.1	Summary recommendations .....	10
4	Implementation .....	11
4.1	Guideline resources .....	11
4.2	Suggested resources .....	11
4.3	Implementation measures .....	11
4.3.1	Implications for implementation .....	11
4.3.2	QCG measures .....	11
4.3.3	Hospital and Health Service measures .....	11
4.4	Quality measures .....	12
4.5	Areas for future research .....	12
4.6	Safety and quality .....	13
5	References .....	17

## List of Tables

Table 1.	Summary of change .....	4
Table 2.	Scope framework .....	6
Table 3.	Basic search strategy .....	7
Table 4.	Major guideline development processes .....	8
Table 5.	Levels of evidence (NHMRC) .....	9
Table 6.	Summary recommendations .....	10
Table 7.	NSQHS Standard 1 .....	12
Table 8.	Clinical quality measures .....	12
Table 9.	NSQHS Criteria .....	13

© State of Queensland (Queensland Health) 2021



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](mailto:Guidelines@health.qld.gov.au). For permissions beyond the scope of this licence contact: Intellectual Property Officer, Queensland Health, GPO Box 48, Brisbane Qld 4001, email [ip\\_officer@health.qld.gov.au](mailto:ip_officer@health.qld.gov.au) phone (07) 3234 1479.

## **1 Introduction**

This document is a supplement to the Queensland Clinical Guideline (QCG) *Hypertension and pregnancy*. 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 full 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

Date	Identifier	Summary of major change
August 2010	MN1008.13-V1-R13	First publication
August 2011	MN10.13-V2-R15	Review date extended. Identifier updated. Program name updated
May 2012	MN10.13-V3-R15	Section 1.1 Definition: Added requirement for clinical and laboratory assessment if rise in BP Section 10 Postpartum: Specified observations. Added reduction in frequency of monitoring requires approval from obstetric/medical team Appendix A: Reference to mercury sphygmomanometer deleted
July 2013	MN10.13-V4-R15	Section 6.1 Mild-moderate hypertension: BP levels for considering treatment with antihypertensive agents lowered from 140-169/90-109 mm Hg to 140-160/90-100 mmHg Section 6.2 Severe hypertension: BP levels requiring treatment with antihypertensive agents lowered from $\geq 170/110$ mmHg to $>160/100$ mmHg Flowcharts updated to reflect above
July 2015	MN15.13-V5-R20	First full review
August 2016	MN15.13-V6-R20	Tables 3 and 7 and Appendix B description of proteinuria changed from 'protein to creatinine ratio greater than or equal to 30 g/mmol' to protein to creatinine ratio greater than or equal to 30 mg/mmol'
August 2016	MN15.13-V7-R20	Missing words at 2.2 Diagnosis of preeclampsia reinserted. Appendix B: random protein to creatinine ratio units changed from 'mg/mol' to 'mg/mmol' Minor typographical corrections
February 2021	MN20.13-V8-R25	<b>Full review</b> <ul style="list-style-type: none"> <li>• Title change <ul style="list-style-type: none"> <li>○ From: Hypertensive disorders of pregnancy</li> <li>○ To: Hypertension and pregnancy</li> </ul> </li> <li>• Definitions <ul style="list-style-type: none"> <li>○ Removed of definitions included in <i>Standard care</i> Guideline: woman centred care, informed choice, informed consent</li> </ul> </li> <li>• Flowcharts <ul style="list-style-type: none"> <li>○ Updated to reflect clinical information in guideline</li> </ul> </li> <li>• Introduction <ul style="list-style-type: none"> <li>○ Added Australian statistics of maternal and neonatal outcomes</li> </ul> </li> </ul>

Date	Identifier	Summary of major change
		<ul style="list-style-type: none"> <li>• Definitions updated                             <ul style="list-style-type: none"> <li>○ <i>From</i>: hypertension; moderate hypertension; severe hypertension; white coat hypertension</li> <li>○ <i>To</i>: mild to moderate hypertension; severe hypertension</li> </ul> </li> <li>• Classification                             <ul style="list-style-type: none"> <li>○ Additional clarity on classification of hypertension occurring prior to 20 weeks gestation; after 20 weeks gestation</li> </ul> </li> <li>• Table 5 Initial investigations:                             <ul style="list-style-type: none"> <li>○ Added calcium recommendation for supplementation</li> </ul> </li> <li>• Section 4.2 screening for pre-eclampsia risk:                             <ul style="list-style-type: none"> <li>○ Added use of PIGF:sLFT-1 ratio and PAPP-A biochemical markers in maternal serum as part of pre-eclampsia investigations</li> </ul> </li> <li>• Table 8 Risk reduction updated                             <ul style="list-style-type: none"> <li>○ <i>From</i>: Aspirin 100 mg per day: <i>To</i>: Aspirin recommendation 100–150 mg per day, preferably at night</li> </ul> </li> <li>• Table 9 Adverse perinatal outcomes:                             <ul style="list-style-type: none"> <li>○ Added information about longer term sequelae for adverse perinatal outcomes</li> </ul> </li> <li>• Section 8.1 Model of care                             <ul style="list-style-type: none"> <li>○ Added PIGF:sIFT-1 ratio for monitoring outpatient eligible women</li> </ul> </li> <li>• Section 9.2 Intrapartum:                             <ul style="list-style-type: none"> <li>○ Added carbetocin for management of third stage</li> </ul> </li> <li>• Section 10 Postpartum                             <ul style="list-style-type: none"> <li>○ Added consideration of risk with non-compliance when prescribing postpartum antihypertensive drug therapy</li> <li>○ NSAIDS recommendations updated to indicate only avoiding their use in women with severe preeclampsia and/or renal impairment</li> </ul> </li> <li>• Section 10.1 Discharge and follow up                             <ul style="list-style-type: none"> <li>○ Added information about contraception and weaning of antihypertensive medications</li> </ul> </li> <li>• References                             <ul style="list-style-type: none"> <li>○ All references updated</li> </ul> </li> </ul>
May 2021	MN20.13-V9-R25	<p><b>Amendment:</b></p> <ul style="list-style-type: none"> <li>• Flowchart: Management of hypertension in pregnancy                             <ul style="list-style-type: none"> <li>○ Clonidine                                     <ul style="list-style-type: none"> <li>▪ <i>From</i> 50–150 micrograms BD</li> <li>▪ <i>To</i> 50–100 micrograms BD (to align with section 5.2)</li> </ul> </li> </ul> </li> </ul>

## 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	
<b>Population</b>	Pregnant women with existing or at risk of developing hypertension
<b>Purpose</b>	Identify relevant evidence related to: <ul style="list-style-type: none"> <li>• Diagnosis, assessment and management of condition</li> </ul>
<b>Outcome</b>	Support: <ul style="list-style-type: none"> <li>• Early identification of pregnant women with hypertension</li> <li>• Accurate assessment and correct diagnosis of condition</li> <li>• Best practice management during pregnancy, labour and postpartum</li> </ul>
<b>Exclusions</b>	<ul style="list-style-type: none"> <li>• Management of anaesthesia</li> <li>• Routine antenatal, intrapartum and postpartum care</li> </ul>

### 2.3 Clinical questions

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

- How is hypertension in pregnancy classified and described?
- How is pre-eclampsia diagnosed?
- What measures reduce risks of hypertension in pregnancy or limit disease progression (if any)?
- What is considered best practice management with regard to:
  - Initial investigations
  - Target BP
  - Antihypertensive therapy
  - Model of care
  - Antenatal surveillance?
- What is best practice management with regard to planning birth and intrapartum and postpartum care?
- What are the longer-term consequences of hypertensive disorders in pregnancy?

## 2.4 Search strategy

A search of the literature was conducted during November 2019–October 2020. 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"> <li>• This may include national and/or international guideline writers, professional organisations, government organisations, state based groups.</li> <li>• This assists the guideline writer to identify:               <ul style="list-style-type: none"> <li>○ The scope and breadth of what others have found useful for clinicians and informs the scope and clinical question development</li> <li>○ Identify resources commonly found in guidelines such as flowcharts, audit criteria and levels of evidence</li> <li>○ Identify common search and key terms</li> <li>○ Identify common and key references</li> </ul> </li> </ul>
2.	Undertake a foundation search using key search terms	<ul style="list-style-type: none"> <li>• Construct a search using common search and key terms identified during Step 1 above</li> <li>• Search the following databases               <ul style="list-style-type: none"> <li>○ PubMed</li> <li>○ CINAHL</li> <li>○ Medline</li> <li>○ Cochrane Central Register of Controlled Trials</li> <li>○ EBSCO</li> <li>○ Embase</li> </ul> </li> <li>• 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</li> <li>• Save and document the search</li> <li>• Add other databases as relevant to the clinical area</li> </ul>
3.	Develop search word list for each clinical question.	<ul style="list-style-type: none"> <li>• This may require the development of clinical sub-questions beyond those identified in the initial scope.</li> <li>• 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</li> <li>• Save and document the search strategy undertaken for each clinical question</li> </ul>
4.	Other search strategies	<ul style="list-style-type: none"> <li>• Search the reference lists of reports and articles for additional studies</li> <li>• Access other sources for relevant literature               <ul style="list-style-type: none"> <li>○ Known resource sites</li> <li>○ Internet search engines</li> <li>○ Relevant textbooks</li> </ul> </li> </ul>

### 2.4.1 Keywords

The following keywords were used in the basic search strategy: hypertension; blood pressure; BP; eclampsia; pre-eclampsia; preeclampsia; magnesium sulfate; magnesium sulphate; MgSO<sub>4</sub>; hypertensive; antihypertensive; proteinuria; HELLP

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

## 2.5 Consultation

Major consultative and development processes occurred between January 2020 and October 2020. These are outlined in Table 4.

Table 4. Major guideline development processes

Process	Activity
<b>Clinical lead</b>	<ul style="list-style-type: none"> <li>The nominated Clinical Leads were approved by QCG Steering Committee</li> </ul>
<b>Consumer participation</b>	<ul style="list-style-type: none"> <li>Consumer participation was invited from a range of consumer focused organisations who had previously accepted an invitation for on-going involvement with QCG</li> </ul>
<b>Working party</b>	<ul style="list-style-type: none"> <li>An EOI for working party membership was distributed via email to Queensland clinicians and stakeholders in June 2020</li> <li>The working party was recruited from responses received</li> <li>Working party members who participated in the working party consultation processes are acknowledged in the guideline</li> <li>Working party consultation occurred in a virtual group via email</li> </ul>
<b>Statewide consultation</b>	<ul style="list-style-type: none"> <li>Consultation was invited from Queensland clinicians and stakeholders during September 2020–October 2020</li> <li>Feedback was received primarily via email</li> <li>All feedback was compiled and provided to the clinical lead and working party members for review and comment</li> </ul>
<b>Review</b>	<ul style="list-style-type: none"> <li>A literature review and consultation with the clinical lead was undertaken in June 2020</li> </ul>

## 2.6 Endorsement

The guideline was endorsed by the:

- Queensland Clinical Guidelines Steering Committee in December 2020
- Statewide Maternity and Neonatal Clinical Network [Queensland] in February 2021

## 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](http://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](http://www.health.qld.gov.au/qcg).



### 3 Levels of evidence

The levels of evidence identified by the GRADE system were used to inform the summary recommendations. Levels of evidence are outlined in Table 5. Levels of evidence (NHMRC) and Summary recommendations are outlined in Table 6. Summary recommendations.

Note that the 'consensus' definition in Table 5. Levels of evidence (NHMRC) relates to forms of evidence that are not identified by the GRADE system and/or that arise from the clinical experience of the guideline's clinical lead(s) and working party.

Table 5. Levels of evidence (NHMRC)

Grade Levels of evidence	
<b>1++</b>	Evidence obtained from high quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias.
<b>1+</b>	Evidence obtained from well conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias.
<b>1</b>	Evidence obtained from meta-analyses, systematic reviews or RCTs, or RCTs with a high risk of bias.
<b>2++</b>	Evidence obtained from high quality systematic reviews of case-control or cohort studies or high quality case-control or cohort studies with a very low risk of confounding, bias, or chance and a high probability that the relationship is causal.
<b>2+</b>	Evidence obtained from well conducted case-control or cohort studies with a low risk of confounding, bias, or chance and a moderate probability that the relationship is causal.
<b>2-</b>	Evidence obtained from case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal.
<b>3</b>	Evidence obtained from non-analytic studies, e.g. case reports, case series.
<b>4</b>	Expert opinion.
<b>Consensus</b>	Agreement between clinical lead, working party and other clinical experts.

### 3.1 Summary recommendations

Summary recommendations and levels of evidence are outlined in The levels of evidence identified by the GRADE system were used to inform the summary recommendations. Levels of evidence are outlined in Table 5. Levels of evidence (NHMRC) and Summary recommendations are outlined in Table 6. Summary recommendations.

Note that the 'consensus' definition in Table 5. Levels of evidence (NHMRC) relates to forms of evidence that are not identified by the GRADE system and/or that arise from the clinical experience of the guideline's clinical leads and working party.

Table 6. Summary recommendations

Recommendation		Grading of evidence
1	Use the definitions of hypertensive disorders of pregnancy provided by the Society of Obstetric Medicine of Australia and New Zealand	Consensus
2	Measure BP in the sitting position, with the arm at the level of the heart and use Korotkoff phase 5 to designate diastolic BP	1+
3	Suspect significant proteinuria when urinary dipstick proteinuria is greater than or equal to 1+	2+
4	If screening identifies the woman at increased risk for pre-eclampsia, consider additional testing including sFlt-1/PIGF ratio to aid prediction	1+
5	For women at increased risk of pre-eclampsia recommend aspirin 100–150 mg before 16 weeks gestation.	1+
6	Provide inpatient care for women with severe hypertension or severe pre-eclampsia	1++
7	For women with hypertension in pregnancy, consider vaginal birth unless a caesarean birth is required for the usual obstetric indications	2+
8	Actively manage the third stage of labour with syntocinon or carbetocin (not ergometrine or syntometrine)	1++
9	Administer magnesium sulfate for first-line treatment of eclampsia	1++
10	Magnesium sulfate is recommended as prophylaxis against eclampsia in women with severe pre-eclampsia	1++
11	Offer formal postnatal review to women whose pregnancies have been complicated by hypertensive disorders for preconceptual advice, counselling, screening and lifestyle advice for future pregnancies	Consensus

## 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](http://www.health.qld.gov.au/qcg)

### 4.1 Guideline resources

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

- Flowchart: Management of hypertension in pregnancy
- Flowchart: Management of eclampsia
- Education resource: Hypertension and pregnancy
- Knowledge assessment: Hypertension and pregnancy
- Parent information: High Blood Pressure (hypertension) in Pregnancy

### 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:

- Antihypertensive drug protocols for local use and administration

### 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](http://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) Standards<sup>1</sup> [Refer to Table 7. NSQHS Standard 1]. Suggested audit and quality measures are identified in Table 8. Clinical quality measures.

Table 7. 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 8. Clinical quality measures

No	Audit criteria	Guideline Section
1.	Proportion of hypertensive pregnant women whose hypertension is classified according to recommended terminology and criteria	Section 2 Section 3
2.	Proportion of pregnant women with greater than or equal to 2+ proteinuria on urinary dipstick who have a quantitative measurement of proteinuria	Section 3.4
3.	Proportion of pregnant women with systolic BP greater than or equal to 160 mm Hg or diastolic BP greater than or equal to 100 mm Hg who are treated with antihypertensive medication	Section 5.3
4.	Proportion of women with eclampsia who received magnesium sulfate as first line treatment	Section 7
5.	Proportion of women who received magnesium sulfate as loading dose 4 g followed by 1 g/hour intravenously	Appendix D
6.	Proportion of women with pre-eclampsia who are assessed and managed for VTE prophylaxis	Section 10
7.	Proportion of women with hypertension in pregnancy who are provided information about potential for acute worsening and when to contact their healthcare provider	Parent information Section 3.2 Section 4

#### 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.

- For women at higher risk of preeclampsia does a combination of biochemical markers, maternal history and mean arterial pressure accurately predict risk and alter treatment options?
- What is the optimal pharmacological agent that may be used as an alternative to nifedipine (if shortage occurs)?
- What is the optimal dosage of aspirin?

## 4.6 Safety and quality

Implementation of this guideline provides evidence of compliance with the National Safety and Quality Health Service Standards and Australian Council on Healthcare Standards (ACHS).<sup>1</sup>

Table 9. NSQHS

NSQHS	Actions required	☑ Evidence of compliance
<b>NSQHS Standard 1: Clinical governance</b>		
<p><b>Patient safety and quality systems</b> 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.</p>	<p><b>Diversity and high risk groups</b> 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</p>	<ul style="list-style-type: none"> <li>☑ Assessment and care appropriate to the cohort of patients is identified in the guideline</li> <li>☑ High risk groups are identified in the guideline</li> <li>☑ The guideline is based on the best available evidence</li> </ul>
<p><b>Clinical performance and effectiveness</b> The workforce has the right qualifications, skills and supervision to provide safe, high-quality health care to patients.</p>	<p><b>Evidence based care</b> 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</p>	<ul style="list-style-type: none"> <li>☑ Queensland Clinical Guidelines is funded by Queensland Health to develop clinical guidelines relevant to the service line to guide safe patient care across Queensland</li> <li>☑ The guideline provides evidence-based and best practice recommendations for care</li> <li>☑ The guideline is endorsed for use in Queensland Health facilities.</li> <li>☑ A desktop icon is available on every Queensland Health computer desktop to provide quick and easy access to the guideline</li> </ul>
	<p><b>Performance management</b> 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</p>	<ul style="list-style-type: none"> <li>☑ 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 <a href="http://www.health.qld.gov.au/qcg">http://www.health.qld.gov.au/qcg</a></li> </ul>
<p><b>Patient safety and quality systems</b> 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.</p>	<p><b>Policies and procedures</b> 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</p>	<ul style="list-style-type: none"> <li>☑ QCG has established processes to review and maintain all guidelines and associated resources</li> <li>☑ Change requests are managed to ensure currency of published guidelines</li> <li>☑ Implementation tools and checklist are provided to assist with adherence to guidelines</li> <li>☑ Suggested audit criteria are provided in guideline supplement</li> <li>☑ The guidelines comply with legislation, regulation and jurisdictional requirements</li> </ul>

NSQHS	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
<b>NSQHS Standard 2: Partnering with consumers</b>		
<p><b>Health literacy</b> Health service organisations communicate with consumers in a way that supports effective partnerships.</p>	<p><b>Communication that supports effective partnerships</b> 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</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Consumer consultation was sought and obtained during the development of the guideline. Refer to the acknowledgement section of the guideline for details</li> <li><input checked="" type="checkbox"/> Consumer information is developed to align with the guideline and included consumer involvement during development and review</li> <li><input checked="" type="checkbox"/> The consumer information was developed using plain English and with attention to literacy and ease of reading needs of the consumer</li> </ul>
<p><b>Partnering with consumers in organisational design and governance</b> Consumers are partners in the design and governance of the organisation.</p>	<p><b>Partnerships in healthcare governance planning, design, measurement and evaluation</b> 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</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Consumers are members of guideline working parties</li> <li><input checked="" type="checkbox"/> The guideline is based on the best available evidence</li> <li><input checked="" type="checkbox"/> The guidelines and consumer information are endorsed by the QCG and Queensland Statewide Maternity and Neonatal Clinical Network Steering Committees which includes consumer membership</li> </ul>
<b>NSQHS Standard 4: Medication safety</b>		
<p><b>Clinical governance and quality improvement to support medication management</b> 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</p>	<p><b>Integrating clinical governance</b> 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</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The guideline provides current evidence based recommendations about medication</li> </ul>

NSQHS	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
<b>NSQHS Standard 5: Comprehensive care</b>		
<p><b>Clinical governance and quality improvement to support comprehensive care</b> Systems are in place to support clinicians to deliver comprehensive care</p>	<p><b>Integrating clinical governance</b> 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 <b>Partnering with consumers</b> 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</p>	<p><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 <a href="http://www.health.qld.gov.au/gcg">http://www.health.qld.gov.au/gcg</a></p> <p><input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for care</p> <p><input checked="" type="checkbox"/> Consumer information is developed for the guideline</p>
<b>NSQHS Standard 6: Communicating for safety</b>		
<p><b>Clinical governance and quality improvement to support effective communication</b> Systems are in place for effective and coordinated communication that supports the delivery of continuous and safe care for patients.</p>	<p><b>Integrating clinical governance</b> 6.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when: 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 <b>Partnering with consumers</b> 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: a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making <b>Organisational processes to support effective communication</b> 6.4 The health service organisation has clinical communications processes to support effective communication when: 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</p>	<p><input checked="" type="checkbox"/> Requirements for effective clinical communication by clinicians are identified</p> <p><input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for communication between clinicians</p> <p><input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for communication with patients, carers and families</p> <p><input checked="" type="checkbox"/> The guideline provides evidence-based and best practice recommendations for discharge planning and follow –up care</p>

NSQHS	Actions required	<input checked="" type="checkbox"/> Evidence of compliance
<b>NSQHS Standard 6: Communicating for safety (continued)</b>		
<p><b>Communication of critical information</b> Systems to effectively communicate critical information and risks when they emerge or change are used to ensure safe patient care.</p>	<p><b>Communicating critical information</b> 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: a. Clinicians who can make decisions about care b. Patients, carers and families, in accordance with the wishes of the patient 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>	<p><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</p>
<p><b>Correct identification and procedure matching</b> Systems to maintain the identity of the patient are used to ensure that the patient receives the care intended for them.</p>	<p><b>Correct identification and procedure matching</b> 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</p>	<p><input checked="" type="checkbox"/> Requirements for safe and for correct patient identification are identified</p>
<p><b>Communicating at clinical handover</b> Processes for structured clinical handover are used to effectively communicate about the health care of patients.</p>	<p><b>Clinical handover</b> 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</p>	<p><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</p>



## 5 References

1. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards [Internet]. 2017 [cited 2020 May 6]. Available from: <http://www.safetyandquality.gov.au>.