Queensland Clinical Guidelines

Translating evidence into best clinical practice

Maternity and Neonatal **Clinical Guideline**

Guideline Supplement: Rheumatic heart disease and pregnancy

Queensland Government

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1 Introduction

This document is a supplement to the Queensland Clinical Guideline (QCG) *Rheumatic heart disease 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 jointly funded by the Queensland Aboriginal and Torres Strait Islander Rheumatic Heart Disease Action Plan 2018-2021, and 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. Conflicts of interest were managed in accordance with the statement.

1.3 Development process

This version of the guideline followed the QCG new development 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 *Endorsed by:*	**Identifier**	**Summary of major change**
March 2022 *Statewide Maternity and Neonatal Clinical Network (Qld)*	MN22.40-1-V1-R27	First publication

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 in the Queensland Aboriginal and Torres Strait Islander Action Plan 2018-2021.

2.2 Scope

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

Table 2. Scope framework

Scope framework	
Population	• Women with history of acute rheumatic fever and/or rheumatic heart disease • Pregnant women with a history of or identified with acute rheumatic fever (ARF) / rheumatic heart disease (RHD) for the first-time during pregnancy
Purpose	Identify relevant evidence related to: • The risks related to pregnancy for women with ARF or RHD • Preconception counselling • Assessment and management of ARF and RHD during pregnancy and postpartum
Outcome	Support: • Early identification of pregnant women with ARF and RHD • Best practice management during pregnancy, labour and postpartum
Exclusions	• Standard care as outlined in the Queensland Clinical Guidelines *Standard Care* guideline • Routine antenatal, intrapartum and postpartum care • Primary health prevention, diagnosis and management of ARF • Secondary prophylaxis and long-term monitoring of ARF • Comprehensive information related to echocardiographic features of RHD/ARF • Surgical or interventional management of RHD

2.3 Clinical questions

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

- What are the risks in pregnancy for women with ARF/RHD?
- What pre-conception care is recommended for women with ARF/RHD planning pregnancy?
- How might previously undiagnosed ARF/RHD in pregnancy present?
- In pregnant women with known ARF/RHD, what is recommended antenatal care?
- What is considered best practice management with regard to intrapartum care?
- What postpartum care is recommended for women with ARF/RHD?

2.4 Search strategy

A search of the literature was conducted during January 2021–March 2021. 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	• This may include national and/or international guideline writers, professional organisations, government organisations, state based groups. • This assists the guideline writer to identify: o The scope and breadth of what others have found useful for clinicians and informs the scope and clinical question development o Identify resources commonly found in guidelines such as flowcharts, audit criteria and levels of evidence o Identify common search and key terms o Identify common and key references
2.	Undertake a foundation search using key search terms	• Construct a search using common search and key terms identified during Step 1 above • Search the following databases o PubMed o CINAHL o Medline o Cochrane Central Register of Controlled Trials o EBSCO o 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	• 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	• Search the reference lists of reports and articles for additional studies • Access other sources for relevant literature o Known resource sites o Internet search engines o Relevant textbooks

2.4.1 Keywords

The following keywords were used in the basic search strategy: Key words (rheumatic heart disease, pregnancy, acute rheumatic fever, cardiac risk factors, cardiac lesions, mitral stenosis, aortic stenosis, ejection fraction, risk stratification, ARF, RHD).
Other keywords may have been used for specific aspects of the guideline.

2.5 Consultation

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

Table 4. Major guideline development processes

Process	Activity
Clinical leads	• The clinical leads accepted their appointment in February 2021
Consumer participation	• Consumer participation was invited from a range of consumer focused organisations who had previously accepted an invitation for ongoing involvement with QCG
Working party	• An EOI for working party membership was distributed via email to Queensland clinicians and stakeholders in September 2021 • The working party was recruited from responses received • Working party members who participated in the working party consultation processes are acknowledged in the guideline • Working party consultation occurred in a virtual group via email
Statewide consultation	• Consultation was invited from Queensland clinicians and stakeholders during November 2021 • Feedback was received primarily via email • All feedback was compiled and provided to the clinical leads and working party members for review and comment
Review	• A literature review and consultation with the clinical lead was undertaken in June–November 2021

2.6 Endorsement

The guideline was endorsed by the:

- Queensland Clinical Guidelines Steering Committee in February 2022
- Statewide Maternity and Neonatal Clinical Network (Queensland) in February 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

The levels of evidence and strength of recommendations identified by the GRADE system[1] and used by RHD Australia and the Menzies School of Health Research[2] were used to inform the summary recommendations.

Table 5. Levels of evidence (GRADE)

Code	Quality of evidence	Definition
A	**High**	Further research is very unlikely to change the level of confidence in the estimate of effect. i.e. • Several high-quality studies with consistent results
B	**Moderate**	Further research is likely to have an impact in the current confidence in the estimate of effect and may change the estimate. i.e. • One high quality study • Several studies with some limitations
C	**Low**	Further research is very likely to have an important impact on the level of confidence in the estimate of effect and would likely change the estimate. i.e. • One or more studies with significant limitations
D	**Very low**	Estimate of effect is very uncertain. i.e. • No direct research evidence • One or more studies with very significant limitations

Table 6. GRADE strength of recommendations

Code	Strength of recommendation	Implications when combined with evidence
1	**Strong**	• **1A:** Strong recommendation, applies to most patients without reservation. Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present. • **1B:** Strong recommendation, applies to most patients. Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present. • **1C:** Strong recommendation, applies to most patients. Some of the evidence o Base supporting the recommendation is, however, of low quality
2	**Weak**	• **2A:** Weak recommendation. The best action may differ depending on circumstances of patients or societal values • **2B:** Walk recommendation. Alternative approaches likely to be better for some patients under some circumstances • **2C:** Very weak recommendation. Other alternatives may be equally reasonable • **2D:** No evidence available; expert consensus judgement

3.1 Summary recommendations

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

Table 7. Summary recommendations

Aspect	Recommendations/Details	GRADE
Preconception care and planning	• Full assessment and echocardiogram	• 1C
Diagnosis of RHD in pregnancy	• Attentive history taking and careful examination • Low threshold for echocardiogram and cardiac referral in at-risk populations	• 1C • 1C
Integrated care	• Includes cardiac (or obstetric physician), obstetric, anaesthetic, midwifery, primary health teams, Aboriginal health service, Maori, Pacific Islanders or refugee health workforce support (other disciplines/sectors as relevant) with women and family. Incorporate birthing on country models of care principles	• 1C
Cardiac risk assessment and general principles of care	• Clinical risk assessment at booking and as required during pregnancy • Baseline echocardiography at booking and as required during pregnancy according to risk • Treatment in specialised centres by a multi-disciplinary pregnancy heart team for high risk patients • Appropriate anticoagulation regimen where relevant • Dental review • Develop comprehensive birth plan as early as possible. Review/modify as needed	• 1C • 1C • 1C • 2B • 2B • 1C
Identify as high risk	• Prior cardiac event (heart failure, transient ischaemic attack, stroke, arrhythmia) or events during pregnancy • Decreased left ventricular systolic function • Moderate or severe aortic and/or mitral stenosis • Pulmonary hypertension • Mechanical valve prostheses or cardiac disorder requiring anticoagulation • Current heart failure or arrhythmia	Consensus
RHD register	• Ensure the woman is on RHD register in relevant jurisdictions • If not (or if not sure), contact RHD register	• 2B
Red flags	• Symptoms and signs requiring urgent medical assessment: o New onset or progressive breathlessness or cough o Need to sleep sitting up (orthopnoea) o Significant reduction in exercise tolerance o Syncope or presyncope o Persistently fast heart rate (tachycardia) o Wheeze and/or leg oedema	• 1C
Labour and birth	• Multi-disciplinary team approach • Individualised birth plan taking account of cardiovascular and obstetric issues • Vaginal birth recommended unless obstetric and/or cardiovascular conditions preclude • Requirement for intrapartum intensive or invasive monitoring should be individualised depending on severity of underlying valvular disease • Follow anticoagulation protocol where relevant • Aim for early epidural analgesia when tachycardia or hypertension may not be well tolerated because of maternal valvular disease	• 2B • 1C • 2C • 1A • 1A • 2C
Post-partum	• Follow anticoagulation protocol where relevant • Investigate post-partum/post-discharge dyspnoea or new-onset cough promptly • Discuss family planning and contraception	• 1C • 2C • 1C
Post-discharge	• Follow-up cardiac review according to priority • Clinical communication follow-up with primary health services/GP/Aboriginal Medical Service and other relevant services • Maintain high degree of suspicion for presentation of dyspnoea	• 1C • 2C • 1C

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 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:

- Local antenatal pathways to access echocardiography and virtual/telehealth specialist care
- Local procedure to support intrapartum care for high risk rheumatic heart disease in labour

4.2 Implementation measures

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

4.2.1 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

4.2.2 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

4.2.3 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

4.3 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[3] [Refer to Table 8. NSQHS Standard 1]. Suggested audit and quality measures are identified in Table 9. 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.	Proportion of women with RHD who receive preconception counselling before pregnancy	Preconception
2.	Proportion of women with RHD who undergo an oral health assessment in pregnancy	Antenatal care
3.	Proportion of women with RHD who are advised to continue secondary prophylaxis	Antenatal care
4.	Proportion of women with RHD who receive contraceptive counselling prior to discharge	Discharge planning
5.	Proportion of women with RHD who are referred for follow up at discharge	Discharge planning

4.4 Areas for future research

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

- Evaluation of routine screening in endemic settings to reduce rates of RHD-attributable maternal mortality and morbidity[4]
- Best utilisation of RHD register to deliver effective maternity care[5]
- Evaluation of levels of surveillance at birth and warranted monitoring after birth[6]
- Anticoagulation regimens for women with mechanical valve prostheses[6]

4.5 Safety and quality

In conjunction with the Queensland Clinical Guideline *Standard care*[7], implementation of this guideline provides evidence of compliance with the National Safety and Quality Health Service Standards.[3]

Table 10. NSQHS Criteria

NSQHS 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 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 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	☑ 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	☑ 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 ☑ The guideline provides evidence-based and best practice recommendations for care ☑ Consumer information is developed for the guideline

NSQHS Criteria	Actions required	☑ Evidence of compliance
NSQHS Standard 6: Communicating for safety		
Clinical governance and quality improvement to support effective communication Systems are in place for effective and coordinated communication that supports the delivery of continuous and safe care for patients.	**Integrating clinical governance** 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 **Partnering with consumers** 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 **Organisational processes to support effective communication** 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	☑ Requirements for effective clinical communication by clinicians are identified ☑ The guideline provides evidence-based and best practice recommendations for communication between clinicians ☑ The guideline provides evidence-based and best practice recommendations for communication with patients, carers and families ☑ The guideline provides evidence-based and best practice recommendations for discharge planning and follow –up care
Communication of critical information Systems to effectively communicate critical information and risks when they emerge or change are used to ensure safe patient care.	**Communicating critical information** 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	☑ Requirements for effective clinical communication of critical information are identified ☑ Requirements for escalation of care are identified

NSQHS Criteria	Actions required	☑ 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	☑ 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	☑ 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 Criteria	Actions required	☑ Evidence of compliance
NSQHS Standard 8: Recognising and responding to acute deterioration		
Clinical governance and quality improvement to support recognition and response systems Organisation-wide systems are used to support and promote detection and recognition of acute deterioration, and the response to patients whose condition acutely deteriorates.	**Integrating clinical governance** 8.1 Clinicians use the safety and quality systems from the Clinical Governance Standard when: 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 **Partnering with consumers** 8.3 Clinicians use organisational processes from the Partnering with Consumers Standard when recognising and responding to acute deterioration to: a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making **Recognising acute deterioration** 8.4 The health service organisation has processes for clinicians to detect acute physiological deterioration that require clinicians to: 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	☑ The guideline is consistent with National Consensus statements recommendations ☑ The guideline recommends use of tools consistent with the principles of recognising and responding to clinical deterioration ☑ Consumer information is developed for the guideline

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