Queensland Clinical Guidelines

Translating evidence into best clinical practice

Clinical Guideline

Primary birthing units

Queensland Government

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The Department of Health acknowledges the Traditional Custodians of the lands, waters and seas across the State of Queensland on which we work and live. We also acknowledge First Nations peoples in Queensland are both Aboriginal Peoples and Torres Strait Islander Peoples and pay respect to the Aboriginal and Torres Strait Islander Elders past, present and emerging.

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The guideline is not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the guideline, taking into account individual circumstances, may be appropriate.

This guideline does not address all elements of standard practice and accepts that individual clinicians are responsible for:

- Providing care within the context of locally available resources, expertise, and scope of practice
- Supporting consumer rights and informed decision making, including the right to decline intervention or ongoing management
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary
- Ensuring informed consent is obtained prior to delivering care
- Meeting all legislative requirements and professional standards
- Applying standard precautions, and additional precautions as necessary, when delivering care
- Documenting all care in accordance with mandatory and local requirements

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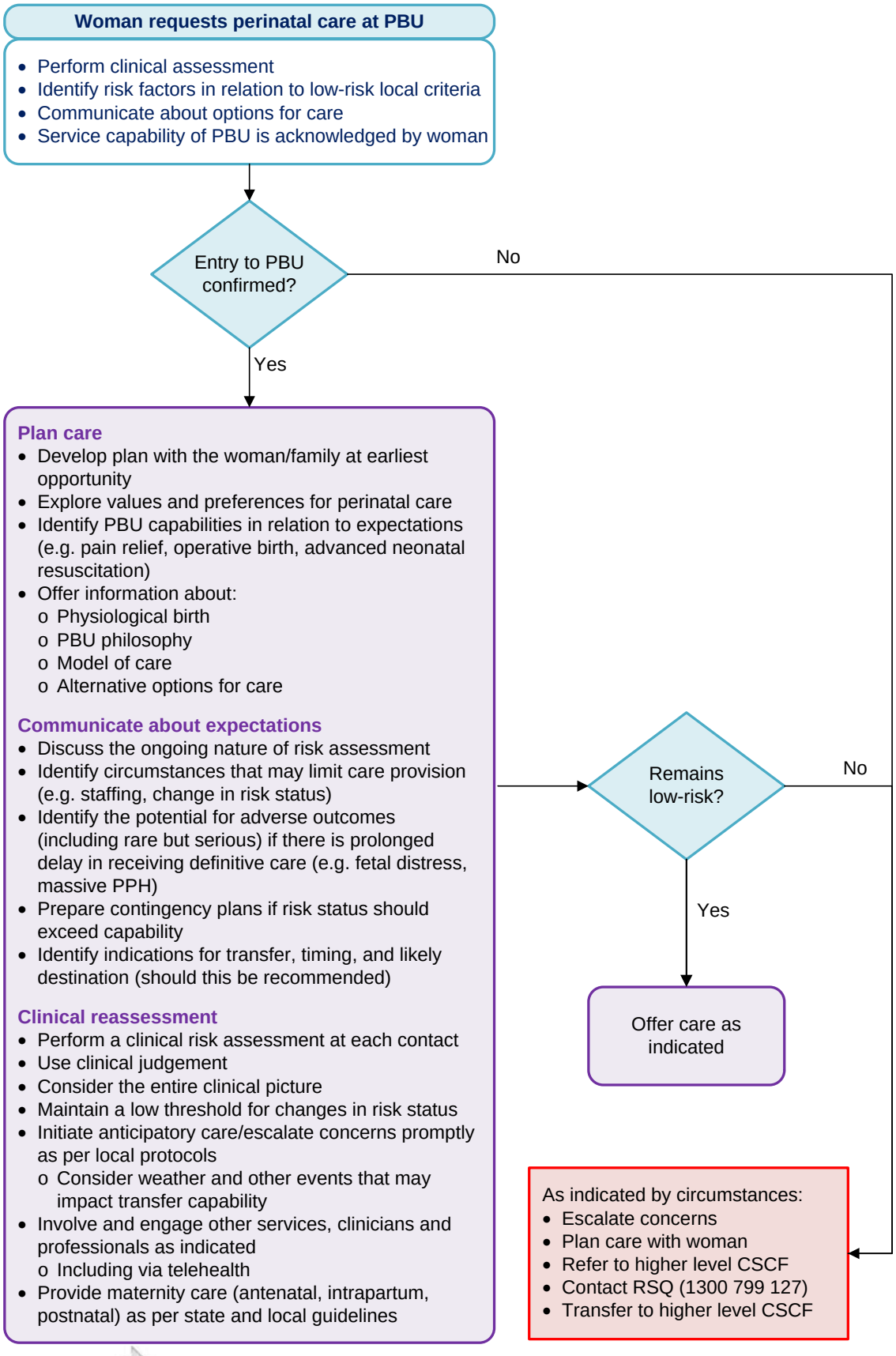
Flowchart: Summary of approach to care at a primary birthing unit



CS: caesarean section, **CSCF:** Clinical Services Capability Framework, **PBU:** Primary birthing unit, **PPH:** primary postpartum haemorrhage, **RSQ:** Retrieval Services Queensland

Flowchart: F26.83-1-V1-R31

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Abbreviations

CSCF	Clinical Services Capability Framework
PBU	Primary birthing units
QAS	Queensland Ambulance Service
RSQ	Retrieval Services Queensland

Definitions and terminology

Complex case	Used in this guideline to mean there are circumstances that, in the judgement of the health practitioner(s) providing or consulting on care, complicate the decision-making process and/or care of a woman requesting birth within a primary birthing context. May include issues related to a woman's medical, social, or environmental circumstances, capacity to consent, or their mental or fetal wellbeing.
Continuity of care	A philosophy that involves shared understanding of care pathways by all healthcare professionals involved in a woman's care, with the aim of reducing fragmented care and conflicting advice.[1]
Continuity of carer	The practice of ensuring a woman knows their healthcare provider(s) and receives care from the same provider or small group of providers, throughout pregnancy, labour, birth and the postnatal period.[2]
Low risk	In this guideline, the term *low risk* is used to mean the absence of identified risk factors (maternal or fetal) during pregnancy and labour beyond those common to all women during pregnancy and birth.[2] • May also be considered as 'normal risk' • Does not include a definitive list of clinical criteria • Requires and assumes the use of clinical judgement to assess risk Refer to the National Midwifery Guidelines for Consultation and Referral[3] to guide discussions with women and the potential need for consultation and referral.
Primary birthing unit (PBU)	Used in this guideline to denote a facility-based maternity service dedicated *solely* to maternity care for women at low risk of pregnancy and birth complications.
Primary maternity team	Membership is influenced by the healthcare needs of the woman and baby, and the availability of healthcare providers and other local resourcing issues. May include a range of multidisciplinary healthcare professionals including clinicians external to the service who are consulted during care planning and provision.
Primary care provider	The registered healthcare professional nominated by the woman, who is responsible for providing and coordinating the majority of the maternity care.[4,5]
Woman/women	In QCG documents, although the terms *woman* and *women* are used, these guidelines are inclusive of people who are pregnant and who do not identify as female.[6]

1 Introduction

This guideline is relevant to facility-based maternity services (including birth centres) that are consistent at *a minimum* with a level two service as defined in the Queensland Clinical Services Capability Framework (CSCF).[7] This guidance assumes a collaborative approach to care and is inclusive of all professional disciplines. On-site care may be provided by midwives, credentialled general practitioners (GP), rural generalists, GP obstetricians, or specialist obstetricians. Anaesthetic, operating theatre, laboratory, and neonatal support services are usually not available. Local contextualisation is essential.

1.1 Purpose

The purpose of this guideline is to support skilled and competent health service clinicians to provide safe and sustainable maternity care within a low risk approach. It is intended to complement local community consultation, facility processes, clinical governance arrangements and existing functional transport and communication systems within a collaborative healthcare network. It provides a framework for local decision making and is not intended as a standalone resource for the development or enhancement of a low risk maternity service.

1.2 Characteristics of a primary birthing unit

The primary birthing unit (PBU) operates within a framework of mature clinical governance, and a network of agreed escalation and transfer guidelines with a service offering a higher CSCF level of maternity care.

Table 1. Characteristics of a primary birthing unit

Aspect	Characteristic
Population	• Women assessed as at low risk of complications during pregnancy and birth and who remain at risk
Philosophy	• Supports and values o Woman centred approach o Informed choice o The physiology of birth o Continuity of care/carer
Environment	• Focus is on maintaining a welcoming and safe physical environment that supports the philosophy of care • The service capability (i.e. the options for routine and emergency care that are available) are clearly communicated to support informed decision making o Refer to Section 3 Informed decision-making
Primary responsibility for care	• Antenatal and postnatal care is provided by a midwife, general practitioner (with or without obstetric credentials), a specialist obstetrician or in a shared collaborative model • During intrapartum care two registered health practitioners are available o At least one of whom is either a midwife or a medical doctor with obstetric credentials o One-to-one intrapartum care is provided by a midwife
Access to higher level CSCF	• Thresholds for time and distance to access a higher level of CSCF are determined by the local PBU considering factors relevant to the service and in consultation with the higher level CSCF service
Physical transfer in case of referral	• Usually required • Care is escalated to a secondary caregiver able to provide more advanced care • Retrieval Services Queensland (RSQ) coordinates immediate or urgent transfers and aeromedical transfers • Non-urgent transfer by mode appropriate to the local context and circumstances (e.g. Queensland Ambulance Service (QAS), private vehicle) • May involve external healthcare providers attending the PBU depending on circumstances and pre-arranged escalation pathways

Adapted from Hermus (2017)[8]

1.3 Clinical outcome data

Maternal and perinatal outcomes by place of birth is the subject of numerous studies.[9-40] Historically, outcomes from PBU (variously described in the literature as midwifery led units, birth centres, non-obstetric units, community maternity units or a primary maternity hospital) have been considered in relation to access to caesarean section services and there is a paucity of data comparing PBU with *no* local service.[41] Variation in the quality, design, methodology, heterogeneity, outcome definitions, adjustment for confounders and relevance to the Queensland context complicate assessment of the evidence.

A focus on clinical outcomes (e.g. perinatal mortality, rate of intervention, neonatal unit days of stay) dominate the literature although the phenomenon of 'safety' is complex and is now recognised to include more than clinical outcome data alone.[42] The integration of multiple aspects of safety (financial, cultural, psycho-social and clinical) into a holistic approach to care that is both safe and acceptable to women is challenging to study.

Queensland has unique challenges in terms of geography, distance, and access to maternity facilities including those with advanced capabilities. There is no high-quality local outcome data. Refer to Appendix A: for selected Australian reported clinical outcomes.

1.4 Transfer of care

There is a stronger association for transfer among women who are nulliparous compared to women who are multiparous, with nulliparous women four times as likely to be transferred as women who are multiparous.[43-45] There is a paucity of quality data to inform a maximum or minimum travel time or distance to reach a higher level CSCF service. Rates of transfer vary across international and national studies.

The most common reasons for intrapartum and postnatal transfer include[15,23]:

- Delay in progress during any stage of labour
- Request for pain relief not provided in the birth setting
- Suspected or confirmed fetal distress including meconium-stained liquor
- Postpartum haemorrhage
- Retained placenta
- Perineal trauma requiring assessment/suturing by specialist clinician
- Neonatal respiratory problems/low Apgar score

1.4.1 Transfer rates

Interpret the data below with caution noting the duration of transfer reported in the studies.

Table 2. Transfer rates from planned homebirth and from planned birth at PBU.

	Planned homebirth[44]						**PBU^[15]**		
	Primiparous			**Multiparous**			**All parity**		
	probability %	ratio	(n)	probability %	ratio	(n)	probability %	ratio	(n)
Overall transfer maternal*	32.52	1 in 3	(572)	7.97	1 in 13	(2446)	49.39	1 in 2	(494)
Overall transfer neonatal	1.24	1 in 81	(3068)	–	–	–	–	–	–
Antenatal	–	–	–	–	–	–	34.01	1 in 3	(494)
Intrapartum	23.95	1 in 4	(572)	4.82	1 in 21	(2446)	13.16	1 in 8	(494)
Postpartum	8.57	1 in 12	(572)	3.15	1 in 32	(2446)	3.64	1 in 27	(494)
Timing unknown	–	–	–	–	–	–	1.01	1 in 99	(494)
Born before arrival	–	–	–	–	–	-	2.43	1 in 41	(494)
Duration of transfer reported in study	Urgent: median 15 minutes, range 5–45 minutes						15–65 minutes depending on traffic		
	Non-urgent: median 20 minutes, range 3–95 minutes								

* Overall transfer rate for nulliparous and multiparous excludes 50 births of unknown parity.
^ PBU defined as freestanding midwifery unit that offers primary level care by a named midwife with no routine involvement of medical staff and geographically separate from facilities offering onsite obstetric, paediatric or specialised medical consultation and procedures.

2 System and clinical standards

A range of system, clinical standards and risk management strategies may be relevant to the operation and delivery of a PBU. Contextualisation to the local environment is essential.

2.1 Rural and remote locations

The national and international attrition of rural maternity services is well documented.[46-50] Birthing in rural and remote contexts presents unique challenges and considerations when complex clinical circumstances emerge unexpectedly.[51] This can affect clinical outcomes by delaying access to advanced clinical care when it is needed and requires local context specific mitigation strategies and counselling for the woman considering options for care.

Table 3. Factors affecting rural and remote locations

Aspect	Consideration
Geographical location	• The time to access advanced care is impacted by: o Proximity to a higher level CSCF[52] (measured in distance or time) o Travel time (varies by site) to arrive at PBU, depart and then reach transferring destination[17,53] o Method of transport available at the time it is required (may be variable and limited)[54] o Weather events and natural disasters (e.g. restricted access due to road closure, fog, smoke) o Infrastructure available (e.g. aeromedical runway, road condition)
Physical resources	• Resource limitations affect ability to provide advanced care o Limited range of consumables stocked and variable equipment o Reduced or unavailable operating room and anaesthetic capabilities o Expiry of infrequently used consumables requiring scheduled checks and possibly stock rotation with a larger centre o Limited or no on-site access and/or ability to store blood products
Skilled clinical workforce	• Difficulty in attracting and retaining skilled maternity clinicians[55,56] (including ultra-sonographers, dietitians, social workers, anaesthetists, paediatricians and other support personnel[54]) • Higher locum/agency workforce unfamiliar with the local environment[57] • Low volume facilities may: o Require clinicians to work across multiple roles outside of maternity[56] o Have limited opportunity to practice/upskill in emergency procedures[55] • Increase competition for access to clinical experiences • Reduced midwifery leadership in facilities where there is no midwifery component/qualification (e.g. director of nursing) • There may be no or limited opportunity and experience to provide o Advanced neonatal resuscitation o Emergency procedures (e.g. instrumental vaginal, caesarean section, breech birth, postpartum haemorrhage (PPH) management, o Identification and repair of perineal tears)
Population characteristics	• Communities may be impacted by[58] o Socioeconomic vulnerability exacerbating the financial and emotional burden of distance[50] o Social determinants of health may contribute to higher levels of morbidity
Community engagement	• Community demand, perception of safety and satisfaction with the maternity service[55]: o Drives and supports trust in local birthing services o Encourages clinician retention in the community • Rare but serious outcomes can have a profound ripple effect for the woman and family, and the health care providers living/working there
Fluctuation in service capability	• Availability of skilled clinicians fluctuates and potential limited backfill[57] may result in: o Service placed on maternity diversion/bypass o Clinicians asked to provide care outside of their usual role/experience resulting in worse clinical outcomes and staff retention o Limitations to workforce availability during emergent situations o Disruption to continuity of care planning and service delivery o Consumer dissatisfaction with service provision
Psychological safety	• Clinician psychological safety and mental health may be impacted by the factors affecting rural and remote healthcare delivery

2.2 Clinical governance

Table 4. Clinical governance

Aspect	Consideration
Planning	• Undertake comprehensive feasibility assessment, planning and consultation prior to establishment of a new or enhancement of an existing PBU • The distance and the anticipated time to achieve transfer of care to a higher level CSCF service is a key element: o For evaluating the suitability of a service design o To promote clinical safety o To aid communication with the community o To support informed decision making
Consultation	• Offer information about the PBU to aid expectation management • As relevant to the context include: o Community stakeholders including First Nations and culturally and linguistically diverse communities o Workforce including local general practitioners o Non-maternity and support staff who may be involved in aspects of routine care and expected to attend in an emergency o Professional organisations and associations o Clinicians at the transfer destinations who will assume responsibility for care
Network model	• Establish formal and informal relationships with the networks and systems that support the service including but not necessarily limited to: o RSQ o QAS o Higher level CSCF facilities (e.g. clinicians, quality and safety mechanisms, clinical educators)
Establishment	• Establish a clinical governance framework within which the PBU operates[48] • Include midwifery and medical professions at every level of governance • Identify and engage with key clinical stakeholders who may support and respond in emergency situations, including from the wider community • Establish local mechanisms, processes, and protocols to facilitate open disclosure, incident management, and case reviews o May occur in collaboration with other services or independently within the PBU
Audit and review	• Establish key maternity indicators to evaluate clinical and satisfaction outcomes • Identify and review the desired outcomes (short and longer term) of the PBU at predetermined intervals (e.g. audit criteria, women's satisfaction with the service) • Undertake regular review of clinical care (e.g. morbidity and mortality meetings, case review of what worked well and what could have been improved) as an opportunity for system change and learning • Compare data from comparable PBU to aid identification of safety performance outliers[59]
Outcome data	• Establish mechanisms to support informed decision-making relevant to the local community[48,54] • Examples: o Average time of transfer to a higher level CSCF (e.g. from decision to arrival of transport, time of departure to arrival at destination) o Proportion of births requiring escalation of care o Community experience/satisfaction with the PBU o Healthcare provider wellbeing and attrition

2.3 Professional communication

Table 5. Communication standards

Aspect	Consideration
Interdisciplinary collaborative relationships[45,59-65]	• Elements and principles that support a safe PBU include: o Woman centred care o Established processes for safety and quality o Continuity of care and carer o Clear pathways and planning for escalation of care o Clear understanding of roles and responsibilities of the primary maternity team members o Inter-professional respect and trust o An understanding of the scope of practice for other professions o Valuing the importance of the relationship between the woman and those providing care and support
When transfer of care is indicated	• Elements that support collaborative relationships during transfer and retrieval include: o Acknowledging the challenges that may arise (e.g. team communication, personal beliefs and emotions, expectations) o Identifying and promoting timely transfer of care into another service as an opportunity for safety as opposed to failure of the PBU • Valuing the midwife-woman partnership, and the wider collaborative relationship between the woman, midwife and medical professional and its importance to the health and wellbeing of the woman and baby
Responsibility for care	• The most clinically appropriate person for the circumstance assumes responsibility for care • Determined on a case-by-case basis • Roles and responsibilities are collaboratively assigned based on the skills and expertise of those present • If transfer or retrieval is indicated via RSQ or neonatal retrieval services, follow standard operating procedures and usual processes
PBU team support	• Facilitate opportunities for individual and primary maternity team support, especially following critical or emergency events (e.g. reviews, debrief, counselling) o Include the wider health service network as appropriate (e.g. ward and administration staff, transfer and retrieval team, receiving/destination hospital) • Promote and facilitate a culture of open disclosure and no-blame to support clinical and system improvement[66] • Refer to Queensland Health: *Open Disclosure Guide*[67]
Documentation[68]	• In addition to routine clinical information, document discussions, and recommendations (including but not limited to): o Woman's choice and preferences for care o Meetings with support people o Case conferences with primary maternity team o Indications for transfer of care o Alternative arrangements for women declining recommended care or whose preferences are not able to be accommodated by the PBU

2.4 Clinical skills

Table 6. Clinician workforce

Aspect	Consideration
Pre-requisite knowledge and skill	• Identify the mandatory, desirable, and optional training and skills required to support a safe service o Utilise the multidisciplinary skill mix available o Support attainment of full scope of practice capabilities for midwives, endorsed midwives, nurses, and nurse practitioners o Include non-maternity healthcare providers who may be involved in an emergency • Advance plan for when required skills are not readily accessible (e.g. with on-call arrangements, emergency notification procedures)
Required training	• May include (but not limited to): o Advanced neonatal resuscitation o Neonatal stabilisation and respiratory support o Advanced airway management o Management of obstetric emergencies o Interpretation of cardiotocography o Technical skills (e.g. insertion of umbilical lines, use of laryngeal mask) o Operation of telemedicine and communication equipment
Learning opportunities	• Support attendance/upskilling at relevant training and education • Facilitate opportunities for ongoing skill and knowledge acquisition (e.g. rotation with other services, skills-based workshops, core competency training, simulation learning, online and face-to-face education) • Engage with QAS, RSQ, neonatal retrieval services, and local transfer destinations to plan and practice team roles and functioning during escalation of care
Recruitment and staffing	• Develop strategies that are: o Anticipatory (e.g. increasing resourcing, plans for workload management during leave, recruitment) o Employed on the day adaptions (e.g. flexing the use of existing resources, prioritising demand and adapting ways of working) o Flexible for service delivery and model of care o Realistic and pragmatic for the clinicians working within the PBU • Acknowledge and plan for knowledge acquisition and upskilling that may require leave and periods of clinical practice off-site

2.5 Local management protocols

Plan and develop management strategies for the factors likely to affect capacity and/or capability of the PBU.[69] Customise strategies as relevant to the local context.

Table 7. Risk management strategies

Aspect	Suggestion
Distance and time	• The physical distance or usual time to access more advanced obstetric and neonatal care is only one aspect of clinical safety • Incorporate into local decision making, the time involved: o To notify of requirement o To task resources (e.g. aeromedical or QAS) o For retrieval or transfer services to prepare, become outward bound, arrive, stabilise and depart o To call additional clinicians to attend on-site o If there is unexpected clinical deterioration o If unexpected weather events impact access
Capacity and capability	• Develop protocols, policies, and work instructions to: o Communicate service capability fluctuations/changes o Enable consistent transparent criteria for service diversion/bypass and for flexing service capability up or down o Support increased choice for women, including models and options for care
Localisation of clinical care	• Develop local protocols, policies, and work instructions, that may include (but not limited to): o Rotation of consumables between services o Identification of women who are considered low risk o Requirements for antenatal contact with care providers o Clinical criteria that supports early escalation of care o Transfer and retrieval processes including risk mitigation for weather and other events • Communicate and socialise the protocols within the service and with service partners • Refer to Section 5 Escalation of care
Supporting implementation tools	• Refer to (including but not limited to): o National Midwifery Guidelines for Consultation and Referral[3] o National Consensus Framework for Rural Maternity Services[49] o Queensland Rural and Remote Maternity Services Planning Framework[48] o Queensland Clinical Services Capability Framework[7] o Rural Maternity Taskforce Report[70] o Australian Rural Birthing Index (ARBI) Toolkit[71] o The Australian Standard on Risk Management (AS ISO 31000:2018)[72] o Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)clinical governance advice for obstetric and gynaecology services in rural and remote regions in Australia[73] o Process to prioritise sites for review using the rural and remote maternity services planning framework[74]
Queensland Clinical Guidelines	• As relevant to the clinical circumstances refer to (but not limited to): o *Normal birth*[2] o *Prolonged and/or obstructed labour*[75] o *Intrapartum fetal surveillance*[76] o *Primary postpartum haemorrhage*[77] o *Perineal care*[78] o *Neonatal resuscitation*[79] o *Newborn baby assessment (routine)*[80] o *Neonatal stabilisation for retrieval*[81]

3 Informed decision-making

Discuss the healthcare available at the PBU to aid risk assessment, and informed decision-making.

Table 8. Service capability

Aspect	Consideration
Exchange of information	• Comprehensive and ongoing discussion about the care available at the PBU is essential for informed decision making[68] • Incorporate recognised techniques to enhance communications (e.g. active listening, open ended questions, inviting/clear language, clarifying, summarising)[68] • Adjust and tailor discussions to the needs of the individual woman (e.g. teaching or decision aids, video, written and verbal information)[82] • Offer evidence-informed clinical information relevant to the woman's circumstances and the local environment in a manner that facilitates choice and decision-making • Offer consultation with other members of the wider primary maternity team to address specific concerns or assist with decision-making • Offer written information to support understanding following discussions
Clinical services available	• As relevant to the PBU, offer information and discuss the availability of safe maternity healthcare • Discussion points may include (but not limited to): o Models of care o Options for pain management (e.g. water immersion, epidural) o Distance/usual transfer time to service with more advanced capabilities o Management of emergency procedures (e.g. caesarean section, instrumental birth, neonatal resuscitation, undiagnosed breech) o Perineal suturing including identification and management of third or fourth-degree tears o Fetal monitoring o Availability of blood products o Equipment (e.g. hoist) o Telehealth/home visiting/appointment options o How changes to service capability will be communicated
Outcome data	• Share local context specific clinical outcome data with women (examples): o Proportion of women who birth at the PBU/transfer to another facility o Outcomes for women who are primiparous versus multiparous o Time taken to achieve transfer o Occasions of service bypass/diversion
Workforce	• As relevant to the PBU, offer information about the availability and/or access to specific maternity healthcare professionals o On-site versus on-call/off site staffing o Skill mix (e.g. advanced neonatal resuscitation skills, obstetric expertise) o Allied health professionals (e.g. pharmacist, social worker, dietitian) o How specialist obstetric consultation and referral is managed
Escalation of care	• Offer information about the usual process if escalation of care is required (e.g. intrapartum emergency, who will be called to assist) • Identify the likely destination and method of transfer if this is recommended o Average/usual duration of transfer • Discuss the potential for weather and unforeseen events to impact care • Refer to Section 5 Escalation of care
Consent to care within a PBU	• Establish local protocols that support informed decision-making • Identify the primary PBU team member responsible for leading discussions • As relevant to the PBU, consider standardised consent forms • Refer to Queensland Health: *Guide to informed decision making in health care*[83]
When recommended care is declined	• Respect a woman's right to make decisions that diverge from recommended care • Refer to Queensland Health: *Partnering with women who decline recommended care*[84] • Document contemporaneously and comprehensively in the health record about discussions and decisions

3.1 Planning for birth

Birth preparation aims to empower the woman to be an active participant in decision-making and supports the woman to retain control of the birth experience. The following discussion points may support informed decision making.

Table 9. Preparing for birth with the woman and support person/s

Aspect	Considerations
Values and preferences	• Exploration of the unique understandings, preferences, concerns, expectations, and life circumstances of each woman is a core enabler of woman-centred care • Values (a person's attitudes and perceptions about healthcare options) and preferences (a person's preferred choices after accounting for their values)[85] vary by individual as does the importance they assign them o May include (for example) autonomy, compassion, safety, professionalism, competence, responsiveness, partnership and empowerment o Consider use of decision aids to support informed decision-making
Physiology of birth discussion	• Risks and benefits of normal birth within the PBU • Optimising hormonal physiology and the birth environment o Refer to Queensland Clinical Guideline: *Normal birth*[2] • Emotional preparation o Role of family/partner/support person/s and inclusion in discussions, as per woman's preferences o The needs of dependent children o Having a known care provider/s present o Refer to Section 4.3 Emotional, social and cultural safety • Comfort measures and pain relief options available o Refer to Queensland Clinical Guideline: *Intrapartum Pain management*[86]
Birth preferences	• Develop a collaborative birth preferences plan with the woman that acknowledges and supports realistic expectations o The act of collaboratively creating a birth preferences plan can improve outcomes, aid realistic expectations, improve satisfaction and increase the woman's sense of control[87]
Contingency plans	• Discuss the process of continual assessment of safety throughout pregnancy, labour, birth and postnatal • Identify and make contingency plans for: o Transfer to a higher level CSCF service o Service disruption due to unforeseen events (e.g. weather) o Disruption to access (e.g. due to road works, highway closure resulting from vehicle accidents)
Indications for transfer	• Discuss potential indications and the associated rationale for when antenatal, intrapartum, or postnatal transfer may be recommended (including via QAS and RSQ) • Reaffirm the opportunity to choose birth in the PBU or at a service with a higher level CSCF at any time • Discuss timing of transfer during labour and the opportunities to maximise clinical safety when this is chosen
Emergency management	• Discuss potential maternal and neonatal emergencies (e.g. shoulder dystocia, neonatal resuscitation, postpartum haemorrhage) • Identify actions/roles of support people during an emergency (e.g. assisting the woman to exit birthing pool)

4 Assessment for safety

The assessment of clinical safety is an essential component in the provision of a PBU. Assessment is a dynamic process that continues throughout pregnancy, labour, birth and the postnatal period and considers the needs of the woman, baby, support person/s and the health professionals providing the care as planned or who are called upon in an emergency.[88]

4.1 Clinical assessment

Table 10. Individual considerations

Aspect	Consideration
Purpose	• To identify clinical circumstances (actual and potential) that may influence the safe outcome for the woman and baby when low risk birthing is planned
Principles of assessment	• There is no single definition of 'increased or high-risk' and 'normal or low risk' pregnancy[88-92] • There is no single accepted or validated risk assessment tool[93] • Levels of risk can change, and the change can be acute and unexpected • Assessment relies on healthcare professionals recognising changes in the woman's circumstances, that may increase or decrease the level of risk • Women's perceptions, expectations, and experiences of birth may influence the way they perceive risk and their choice of birth location[32,90,94,95] • Assessment of clinical risk is impacted by the local context in which care is planned (e.g. capability, resourcing, proximity to a higher level CSCF service)
Performance of assessment	• Use clinical judgement when assessing clinical care needs and risk profile • Consider the entire clinical picture (not merely the presence or absence of specific risk factors) o 'Check lists' that identify individual risk factors do not always weigh or assess the interaction between risk factors adequately[88] • Refer to National Midwifery Guidelines for Consultation and Referral to guide the need for consultation and referral[3]
Timing of clinical assessments/	• Discuss clinical considerations at the first antenatal visit • Reassess clinical circumstances: o At each antenatal contact o Whenever there is a change in clinical circumstances • Discuss concerns with the woman and escalate to case conference with the maternity team when required (as per local processes) • Undertake and plan appropriate frequency of review as per local protocols, while maintaining continuity of carer/s
Continuous assessment	• Ongoing and continuous clinical assessment and evaluation facilitates: o Timely consultation and referral o Safe and early escalation and transfer o Identification of strategies to manage early deterioration • Apply a principle-based approach which supports mother-baby bonding and minimises separation • Maximise opportunities for continuity of care and carer

4.2 Clinical considerations

Clinical definitions of low risk are defined and agreed at the local level.

Table 11. Suggested clinical circumstances for acceptance into PBU

Aspect	Consideration
Clinical circumstances[3,96]	• Birth at a PBU is generally a safe choice for women who: o Are aged 18–40 years o Have had less than five previous births o Have a singleton pregnancy o Have an uncomplicated pregnancy at entry to the PBU and remain uncomplicated at the commencement of labour o Have no pre-existing or current health concerns that impact maternal and fetal wellbeing and safety during birth o At the onset of labour ▪ Are between 37+0–41+6 completed weeks gestation ▪ Baby is in cephalic presentation o Can make an informed choice to birth within a PBU
Other clinical considerations for birth at PBU	• The presence of clinical circumstances beyond those specified as low risk does not preclude birth within a PBU as a safe choice for some women • Use clinical judgement and consider individual circumstances when making recommendations for place of birth • Where more complex clinical issues are present or arise, consider a case review (as for other complex healthcare) to assess the complexities specific to the woman's circumstances[47] • Support a woman's right to safe care, access, autonomy, choice of birthplace and to be treated with dignity and respect[1,97]

4.3 Emotional, social and cultural safety

Table 12: Emotional and cultural considerations

Aspect	Consideration
Purpose	• To identify social, emotional, psychological, spiritual, and cultural considerations that may influence the safe outcome for the woman and baby when birth within the PBU context is planned
Psychological support	• Recognise the importance of psychological safety and spirituality in promoting emotional health and wellbeing in the perinatal period[42] • Support from family/significant others is available as per woman's preferences • As relevant to the circumstances, provide opportunity to discuss o Previous birth experiences o Childhood, sexual or psychological trauma o Referral for psychological counselling or support • Refer to Queensland Clinical Guideline: *Perinatal mental health*[98]
Acknowledging importance of culture	• Cultural, religious, and spiritual beliefs that support culturally safe maternity care: o Are identified in consultation with the woman o Are incorporated into planning for the birth whenever clinically safe and feasible • Consider individual cultural practices that may be important within the PBU context o Language for communication between the primary healthcare provider, woman, and support people o Inclusion or exclusion of family members at the time of birth, especially in relation to the nominated support person[99,100] o Spiritual or religious beliefs or dictates that may impact clinical safety

4.4 Intrapartum risk assessment

Table 13. Alteration in intrapartum risk status

Aspect	Consideration
Standardise recognition of risk factors	• Consistent recognition of clinical deterioration is a considerable challenge for maternity care providers[101] • Establish explicit definitions and thresholds for action (relevant to the local context and the requirements for safe transfer), to facilitate timely review, consultation, referral, and escalation of care[102] • Engage all levels of the PBU to co-design and promote consensus on the approach[103] • Communicate and socialise thresholds for action with partner services (e.g. QAS, referral destinations) • Support implementation with training and education about the thresholds • Refer to relevant *Queensland Clinical Guidelines*[104] to highlight the evidence base and emphasise the potential for improved clinical outcomes
Approach to risk	• Consider the entire clinical circumstances and review trends over time in addition to immediate events[65] • Maintain clinical vigilance and a lower tolerance for change in intrapartum risk status when access to a higher level CSCF service is likely to be impacted (e.g. by distance, workforce limitations, weather) • Refer to Section 2.1 Rural and remote locations when considering timing of escalation
Indicators of increased intrapartum risk	• Develop agreed thresholds for action and the subsequent pathway for escalation of care (for example but not limited to)[102]: o Concerns raised by the woman or birthing partner o Presence of meconium liquor o Intrapartum vaginal bleeding o Abnormal presenting part o Delay in progress of labour: o Maternal pyrexia (38 °C or more) o Tachysystole (5 or more contractions in 10 minutes) o Evidence of fetal compromise o Estimated volume of blood loss postpartum (a lower volume threshold for escalation in the presence of ongoing loss may be appropriate in some circumstances) o Lack of agreement in clinical decision making between care providers • Refer to Section 2.5 Local management protocols
Newborn care	• One clinician is assigned primary responsibility for the immediate care at birth and during the transition to extra-uterine life • If indicated, use RSQ supported video-technology to assist in assessment and review of the newborn • Refer to Section 2.4 Clinical skills for neonatal skill requirements • Provide routine newborn care as per Queensland Clinical Guidelines: o *Normal birth*[2] o *Neonatal resuscitation*[79] o *Newborn baby assessment (routine)*[80] o *Neonatal stabilisation for retrieval*[81]

4.5 Routine maternity care

Table 14. Clinical standards

Aspect	Consideration
Standard care	• Refer to Queensland Clinical Guideline: *Standard care*[105] for care considered 'usual' or 'standard' o Includes for example: privacy, consent, decision making, sensitive communication, medication administration, clinician education and support, culturally appropriate care
Routine maternity care	• Offer routine care as per national, state, and local hospital guidelines including but not limited to: o *Queensland Clinical Guidelines*[104] o Australian Pregnancy Care guidelines[106] o National Midwifery Guidelines for Consultation and Referral[3] o Extended Practice Authority–Midwives[107] o Local protocols and workplace instructions • Establish an agreed pathway/mechanism to support ongoing provider responsibility for investigations, treatment, and follow-up (e.g. review or interpret imaging, medication, pathology investigations that were ordered)
Continuity of care/carer	• Evidence supports the benefits of continuity of care/carer o Refer to Queensland Clinical Guideline: *Standard care*[105] • Involve members of the primary maternity team (as relevant to the circumstances during the antenatal period (e.g. case conferences, raising clinical or other concerns with the woman, primary healthcare provider, wider maternity team) • Establish local minimum requirements for a woman's antenatal engagement with the wider maternity team, including for example with: o Local clinicians within the community who may be called upon to provide emergency support o Clinical specialists external to the service o When obstetric involvement is indicated for risk and safety • Advise of the potential for unplanned changes in primary or secondary healthcare providers during labour and birth and the possible reasons
Primary care provider partnership	• The relationship between the woman and the primary care provider is a partnership which, in collaboration with other health care providers and the woman's family, empowers and supports the woman in pregnancy, birth and early parenthood[5] • Is based on mutual trust and respect and recognises a woman's ability and responsibility to make informed decisions about care[5] • Requires the healthcare provider to provide complete, unbiased and evidence informed information

5 Escalation of care

Timely, safe and woman centred care in the setting of a transfer from the PBU to a higher level CSCF service supports positive outcomes for women and families and is a measure of success within a PBU.

5.1 Referral and transfer of care

Table 15. Transfer principles

Aspect	Consideration
Local protocol development	• Establish local protocols, processes, and practices to support consultation and/or referral, relevant to different levels of risk, urgency, and geographical location: o With higher level CSCF services when consultation, escalation, transfer or retrieval is indicated[89] o With QAS and RSQ o Transfer of information between services when required (e.g. relevant clinical history, standardised summary of key events) • Align guidance, protocols and work instructions across the services and promote consistency with transfer and referral guidelines • Incorporate local constraints and service level capability as necessary • Identify responsibility for care and logistics during referral and transfer
RSQ	• Coordinate requests for urgent transfer or retrieval via RSQ o Telephone: 1300 799 127 • Initiate retrieval and or transfer as soon as possible to facilitate: o Clinical support and advice o Logistical planning • If the option for safe retrieval or transfer is impacted, consider alternative strategies/options as relevant to the circumstances (e.g. could an expert clinician be sourced from elsewhere) • The designated team lead leads the request for retrieval or transfer o Where possible, the primary carer remains with the woman o Additional healthcare providers may be needed to assist in patient care while the team lead facilitates transfer o For neonatal retrieval, refer to Queensland Clinical Guideline: *Stabilisation for retrieval-neonatal*[81]

5.2 Indications for transfer or retrieval

Table 16. Transfer indications

Aspect	Consideration
Principles	• Indications vary according to the individual circumstances, previous planning, the environment (e.g. weather) and the woman's choice • Assessment and decision-making requires expertise and clinical judgement • Immediate transfer may not always be the safest option (e.g. meconium liquor in second stage of labour for a woman who is multiparous) • May also be indicated due to reduction (temporary or longer standing) in service capability
Maternal/fetal indications	• Woman requests: o Transfer from a PBU to a higher level CSCF service due to a change in circumstances or perception of safety o Pain management beyond what is available in the PBU context[45] • Primary healthcare provider concern—may include (but not limited to): o Delayed progress in any stage of labour[45] o Maternal wellbeing o Fetal wellbeing o Perineal repair requiring resources not available o Newborn wellbeing • Refer to *Queensland Clinical Guidelines*[104] as indicated

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Appendix A: Comparison of outcomes from planned homebirth, PBU and hospital birth among women of low risk

Outcome	Homebirth			PBU			Hospital		
	%	probability ratio	(n)	%	probability ratio	(n)	%	probability ratio	(n)
Vaginal birth[a]	95.15	1 in 1	(8212)	89.21	1 in 1	(71505)	78.56	1 in 1	(1171703)
Intact perineum[a]	47.18	1 in 2	(8018)	29.96	1 in 3	(68634)	26.27	1 in 4	(1080465)
Episiotomy[a]	2.58	1 in 39	(8018)	8.29	1 in 12	(68634)	17.33	1 in 6	(1080465)
3rd/4th degree perineal injury[a]	0.87	1 in 115	(8018)	2.39	1 in 42	(68634)	1.99	1 in 50	(1080465)
PPH with blood transfusion[a]	0.54	1 in 187	(8212)	0.34	1 in 293	(71505)	0.53	1 in 188	(1171703)
Augmentation with oxytocin[a]	3.45	1 in 29	(8212)	8.10	1 in 12	(71505)	16.49	1 in 6	(1171703)
Epidural or spinal anaesthetic[a]	3.35	1 in 30	(8212)	6.54	1 in 15	(71505)	13.81	1 in 7	(1171703)
Forceps birth[a]	0.74	1 in 135	(8212)	2.55	1 in 39	(71505)	4.65	1 in 22	(1171703)
Vacuum extraction birth[a]	1.32	1 in 76	(8212)	3.50	1 in 29	(71505)	7.34	1 in 14	(1171703)
Intrapartum caesarean birth[a]	2.36	1 in 42	(8212)	4.02	1 in 25	(71505)	7.79	1 in 13	(1171703)
Maternal intensive care admission of 48 hours[a]	0.14	1 in 714	(4995)	0.16	1 in 639	(47266)	0.38	1 in 260	(654960)
Neonatal intensive care admission >48 hours[a]	0.52	1 in 193	(5789)	1.02	1 in 98	(55312)	0.84	1 in 119	(819963)
Stillbirth during labour[a]	0.11	1 in 912	(8212)	0.04	1 in 2235	(71505)	0.08	1 in 1331	(1171050)
Neonatal death up to 7 days[a]	–	–	(5789)	0.03	1 in 3951	(55312)	0.03	1 in 3710	(819963)
Apgar less than 7 at 5 minutes[b]	–	–	–	1.22	1 in 82	(490)	2.80	1 in 36	(3145)

a: Australian population based retrospective cohort study of women with uncomplicated pregnancy comparing birth and neonatal data from planned homebirth, planned birth in a birth centre-freestanding or alongside, (PBU) and planned birth in hospital. Distance/travel time from homebirth and PBU to hospital was not reported. Homer CSE, Cheah SL, Rossiter C, Dahlen HG, Ellwood D, Foureur MJ, et al. Maternal and perinatal outcomes by planned place of birth in Australia 2000 - 2012: a linked population data study. BMJ Open 2019;9(10):e029192. doi:10.1136/bmjopen-2019-029192.
b: Australian prospective cohort comparing women intending to give birth at a freestanding midwifery unit (PBU) or at tertiary level maternity unit. Distance 15–20 km from PBU to hospital. Monk A, Tracy M, Foureur M, Grigg C, Tracy S. Evaluating Midwifery Units (EMU): a prospective cohort study of freestanding midwifery units in New South Wales, Australia. BMJ Open 2014;4(10):e006252. doi:10.1136/bmjopen-2014-006252.
PBU: Other terms used in the literature with similar meaning include midwifery led units, birth centres (free standing or alongside), non-obstetric units, community maternity units or primary maternity hospital)
PPH: primary postpartum haemorrhage

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