The Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Excellence in Women's Health

Caesarean Delivery on Maternal Request (CDMR)

This statement has been developed and reviewed by the Women's Health Committee and approved by the RANZCOG Board and Council.

A list of Women's Health Committee Members can be found in Appendix A.

Disclosure statements have been received from all members of this committee.

Disclaimer This information is intended to provide general advice to practitioners. This information should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any patient. This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The document has been prepared having regard to general circumstances. For details of membership, see Appendix A.

First endorsed by RANZCOG: July 2010
Current: July 2017
Review due: July 2020

Objectives: To provide advice on management where a woman requests elective delivery by caesarean section where there are no identifiable medical or obstetric contraindications to an attempt at vaginal delivery.

Definition: Caesarean delivery on maternal request (CDMR) is defined as elective caesarean delivery for singleton pregnancy on maternal request at term in the absence of any medical or obstetric indications.[1]

Options: Planned caesarean section versus an attempt at vaginal delivery.

Outcomes: Perinatal mortality, short-term neonatal morbidity, long-term infant morbidity, and short- and long-term maternal morbidity and mortality.

Target audience: All health practitioners providing maternity care, and patients.

Values: The evidence was reviewed by the Women's Health Committee (RANZCOG), and applied to local factors relating to Australia and New Zealand.

Validation: This statement was compared with other advice on CDMR by AHRQ[2] NIH[1, 3] ACOG[4] and NICE[5].

Background: This statement was first developed by Women's Health Committee in July 2010 to provide advice on management of maternal requests for caesarean delivery.

Funding: The development and review of this statement was funded by RANZCOG.

Table of Contents

1. Patient summary

A number of pregnant women may prefer caesarean to vaginal delivery for various non-medical reasons. There are some risks and benefits to this decision for both mother and baby. It is important to know that the risks may not be apparent until subsequent pregnancies. Women considering elective caesarean delivery where there is no medical reason should discuss this decision with their obstetrician.

2. Summary of recommendations

Recommendations	Grade and reference
If after full discussion the patient maintains a request for delivery by caesarean section, the obstetrician may: 1. Agree to perform the caesarean section, providing the patient is able to demonstrate an understanding the risks and benefits of the course of action she has chosen; OR 2. Decline to perform the caesarean section in circumstances where: • the obstetrician believes there are significant health concerns for mother or baby if this course of action is pursued; or • the patient appears to not have an understanding sufficient to enable informed consent to the procedure; AND Advise the patient to seek the advice of another obstetrician for a second opinion.	Consensus-based recommendation

3. Introduction

The term Caesarean Delivery on Maternal Request (CDMR) refers to elective delivery by caesarean section at the request of a woman with no identifiable medical or obstetric contraindications to an attempt at vaginal delivery.[1] Nevertheless significant psychological factors may heavily influence a women's informed choice for caesarean birth, including previous traumatic birth (such as fetal loss or birth trauma) or significant life trauma (such as interpersonal or sexual violence). Recognising this, sensitivity should be used around the term CDMR, since these caesarean births may legitimately be also considered "medically indicated".

The preference for CDMR varies widely and with many factors including geography, parity, previous birth experience and stage of reproductive life. Estimates of caesarean delivery on maternal request range from 4-18 percent but there is little confidence in the validity of these estimates as CDMR is not a well recognised clinical entity and there are currently no accurate means of reporting it.[1, 2, 6]

4. Evidence summary and basis for recommendations

No randomised trials on caesarean delivery for non-medical reasons have been performed.[7] There are essentially no randomised controlled trials of suitable size that compare elective CS to planned vaginal birth. In assessing the consequences of an elective caesarean birth, it is important to exclude those that planned vaginal birth but ended up with an emergency caesarean birth.[1, 7] Most of the current available evidence is based on indirect analyses that compare elective cesarean deliveries without labour with a combination of vaginal deliveries and unplanned and emergency caesarean deliveries.[4, 8]

4.1 What effect does CDMR have on the incidence of short and long term maternal outcomes?

4.1.1 Does CDMR protect against pelvic floor damage?

Urinary incontinence is reduced if elective CS is performed before the onset of labour but this protective benefit is reduced with age and subsequent pregnancies regardless of mode of delivery.[9] Postpartum urinary incontinence may have a multifactorial origin.[10] Anal incontinence and sphincter defects are not noted after elective CS.[11, 12] CS may decrease the risk of pelvic organ prolapse but cannot be routinely advocated for the prevention of prolapse.[13]

4.1.2 Does CDMR reduce recovery time?

For most women the recovery after vaginal birth will be quicker than caesarean delivery, particularly with second and subsequent vaginal deliveries.

4.1.3 What effect does CDMR have on the Index Pregnancy?

CDMR removes the small potential or intrinsic risks associated with a vaginal delivery. However, these risks are then replaced with those imparted by a surgical delivery.

The maternal risks of the index pregnancy are related to the likelihood of successful vaginal birth. Epidemiological data is unable to distinguish a difference in maternal mortality.[1]

Emergency caesarean section can be more hazardous than the elective procedure and it may be safer for the mother in the index pregnancy to perform an elective procedure than to attempt vaginal birth where the likelihood of achieving vaginal birth is not high.[14]

It is impossible to predict which women will have a successful vaginal birth, nor which women will suffer complications from caesarean section.

The risks of complication from elective CS (7%) is approximately half that of emergency CS in labour (16.3%) and instrumental vaginal deliveries (12.9%).[15]

While there are some reports of reduced early breastfeeding rates amongst prelabour caesarean it is difficult to adjust for all confounding variables. In view of these findings it is recommended that all possible steps are taken to assist women having caesarean section to initiate breast feeding. This includes promoting skin to skin contact in theatre and supporting women to breast feed as soon as practicable after delivery, including in recovery.

When breastfeeding is initiated, mode of delivery has no effect on the number of mothers still breastfeeding at 6 months.[16]

4.1.4 What effect does CDMR have in subsequent pregnancies?

Pivotal in the decision-analysis for many women should be the intended future family size. With rising caesarean section rates, placenta accreta becomes increasingly common. Silver *et al.* (2006)[17] found that placenta accreta was present in 0.24%, 0.31%, 0.57%, 2.1%, 2.3% and 6.7% of women undergoing their first, second, third, fourth, fifth, and sixth or more caesarean deliveries, respectively. This was a consequence of both an increasing incidence of placenta praevia with repeated caesarean sections and an increased likelihood of placenta accreta where the placenta was located over the uterine scar. Placenta accreta and percreta may be associated with significant maternal mortality and morbidity including massive haemorrhage requiring emergency hysterectomy.

Caesarean delivery may be associated in subsequent pregnancies with delayed conception, increased risk of ectopic pregnancy, possibly intrauterine growth restriction (IUGR), preterm birth, unexplained stillbirth after 34 weeks and uterine scar dehiscence or rupture.[8] It should be noted that while relative risks for these complications have been shown to be marginally elevated, the absolute risk increase for many of these complications is extremely small (e.g. for stillbirth the absolute risk increase is 0.03%, giving a number needed to harm of 3,333 women; for ectopic pregnancy the absolute risk increase is 0.1%, giving a number needed to harm of 1000).[18] In addition, the nature of such studies means it is extremely difficult to account for all possible confounding variables.

4.2 What effect does CDMR have on the incidence of short and long term neonatal outcomes?

Approximately 1.4 in 1000 pregnancies will results in antenatal, intrapartum or neonatal death after 39 weeks gestation[19], increasing to 4.6/1000- at 41 weeks gestation.[20] This is an unacceptable risk for many women and health professionals.[21] This reflects the timing of delivery rather than the mode of delivery.

4.2.1 What effect does CDMR have on Hypoxic Ischaemic Encephalopathy (HIE)?

Badawi, in the WA Cohort study found that elective caesarean section is associated with markedly lower rates of hypoxic ischaemic encephalopathy (HIE) than other modes of birth.[22]

4.2.2 Does CDMR reduce long-term neonatal morbidity?

Cerebral palsy can be expected to affect approximately 1 in 1000 term births. Of these, only 10% are felt to have an intrapartum origin[23] but a further unknown percentage are the consequence of 'late antenatal' events that might be prevented by elective early delivery.

Erb's palsy and other birth injuries may occur after caesarean section but are unequivocally greater after vaginal birth. The rate of Erb's palsy is reported variously between 0.45 and 3 per thousand births. This is in the range that most women would seem to regard as important in deciding between caesarean section and vaginal birth.[21]

4.2.3 What effect does CDMR have on other neonatal outcomes?

There are no studies on caesarean delivery on maternal request of sufficient quality therefore studies on caesarean delivery without labour are often referred to for when predicting the effect of CDMR on neonatal outcomes.[4] Caesarean delivery without labour is associated with an increased risk of neonatal respiratory complications including transient tachypnea of the newborn.[24, 25]

Refer to the College statement *Timing of elective caesarean section (Obs 23)*

5. Conclusion

When a women requests elective delivery by caesarean section in the absence of medical indication, the obstetrician should acknowledge the legitimacy of the request and explore the reasons underlying it. Accurate information may be sufficient to alleviate concerns and some issues, such as fear of pain and labour (tocophobia), may be satisfactorily addressed in other ways. The expected family size needs to be taken into account. Any decision making needs to take into account local jurisdictional factors.

Recommendations	Grade and reference
If after full discussion the patient maintains a request for delivery by caesarean section, the obstetrician may: 1. Agree to perform the caesarean section, providing the patient is able to demonstrate an understanding the risks and benefits of the course of action she has chosen; OR 2. Decline to perform the caesarean section in circumstances where: • the obstetrician believes there are significant health concerns for mother or baby if this course of action is pursued; or • the patient appears to not have an understanding sufficient to enable informed consent to the procedure; AND Advise the patient to seek the advice of another obstetrician for a second opinion.	Consensus-based recommendation

6. References

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7. Links to other College statements

Placenta Accreta (C-Obs 20)

Routine Intrapartum Care in the absence of pregnancy complications (C-Obs 31)

Planned Vaginal Birth after Caesarean Section (Trial of Labour) (C-Obs 38)

Guidelines for consent and the provision of information regarding proposed treatment (C-Gen 02)

Evidence-based Medicine, Obstetrics and Gynaecology (C-Gen 15)

Timing of Elective Caesarean Section (C-Obs 23)

8. Patient information

A range of RANZCOG Patient Information Pamphlets can be ordered via:

https://www.ranzcog.edu.au/Womens-Health/Patient-Information-Guides/Patient-Information-Pamphlets

Appendices

Appendix A Women's Health Committee Membership

Name	Position on Committee
Professor Yee Leung	Chair
Dr Joseph Sgroi	Deputy Chair, Gynaecology
Associate Professor Janet Vaughan	Deputy Chair, Obstetrics
Professor Susan Walker	Member
Associate Professor Lisa Hui	Member
Associate Professor Ian Pettigrew	EAC Representative
Dr Tal Jacobson	Member
Dr Ian Page	Member
Dr John Regan	Member
Dr Craig Skidmore	Member
Dr Bernadette White	Member
Dr Scott White	Member
Associate Professor Kirsten Black	Member
Dr Greg Fox	College Medical Officer
Dr Marilyn Clarke	Chair of the ATSI WHC
Dr Martin Byrne	GPOAC Representative
Ms Catherine Whitby	Community Representative
Ms Sherryn Elworthy	Midwifery Representative
Dr Amelia Ryan	Trainee Representative

Appendix B Overview of the development and review process for this statement

i. Steps in developing and updating this statement

This statement was originally developed in July 2002 and was most recently reviewed in July 2017. The Women's Health Committee carried out the following steps in reviewing this statement:

- Declarations of interest were sought from all members prior to reviewing this statement.
- Structured clinical questions were developed and agreed upon.
- An updated literature search of MEDLINE and CINAHL and the Cochrane Library was carried out for randomised trials and cohort studies comparing caesarean section on maternal request versus an attempt at vaginal delivery (from July 2010 to 20 June 2013).
- At the July 2017face-to-face committee meeting, the existing consensus-based recommendations were reviewed and updated (where appropriate) based on the available body of evidence and clinical expertise. Recommendations were graded as set out below in Appendix A part ii). An updated literature search to answer the clinical questions was undertaken where required.

ii. Declaration of interest process and management

Declaring interests is essential in order to prevent any potential conflict between the private interests of members, and their duties as part of the Women's Health Committee.

A declaration of interest form specific to guidelines and statements was developed by RANZCOG and approved by the RANZCOG Board in September 2012. The Women's Health Committee members were required to declare their relevant interests in writing on this form prior to participating in the review of this statement.

Members were required to update their information as soon as they become aware of any changes to their interests and there was also a standing agenda item at each meeting where declarations of interest were called for and recorded as part of the meeting minutes.

There were no significant real or perceived conflicts of interest that required management during the process of updating this statement.

iii. Grading of recommendations

Each recommendation in this College statement is given an overall grade as per the table below, based on the National Health and Medical Research Council (NHMRC) Levels of Evidence and Grades of Recommendations for Developers of Guidelines. Where no robust evidence was available but there was sufficient consensus within the Women's Health Committee, consensus-based recommendations were developed or existing ones updated and are identifiable as such. Consensus-based recommendations were agreed to by the entire committee. Good Practice Notes are highlighted throughout and provide practical guidance to facilitate implementation. These were also developed through consensus of the entire committee.

Recommendation category		Description
Evidence-based	A	Body of evidence can be trusted to guide practice
	B	Body of evidence can be trusted to guide practice in most situations
	C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
	D	The body of evidence is weak and the recommendation must be applied with caution
Consensus-based		Recommendation based on clinical opinion and expertise as insufficient evidence available
Good Practice Note		Practical advice and information based on clinical opinion and expertise

Appendix C Disclaimer

This information is intended to provide general advice to practitioners, and should not be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of any patient.

This information has been prepared having regard to general circumstances. It is the responsibility of each practitioner to have regard to the particular circumstances of each case. Clinical management should be responsive to the needs of the individual patient and the particular circumstances of each case.

This information has been prepared having regard to the information available at the time of its preparation, and each practitioner should have regard to relevant information, research or material which may have been published or become available subsequently.

Whilst the College endeavours to ensure that information is accurate and current at the time of preparation, it takes no responsibility for matters arising from changed circumstances or information or material that may have become subsequently available.