CATEGORY: USEFUL GUIDANCE

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

Driving after abdominal surgery including caesarean section

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.

The committee acknowledges the contribution of Dr Antonia Shand to this document.

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

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.

First endorsed by RANZCOG: November 2012
Current: March 2020
Review due: March 2023

Objectives: To provide advice on driving post operatively following abdominal surgery including caesarean section.

Outcomes: Improved women's health after surgery.

Target audience: All health practitioners conducting abdominal surgery, or caring for women after surgery, 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.

Background: This statement was first developed by Women's Health Committee in November 2012 and reviewed in November 2019.

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

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1. Plain language summary

The ability to drive a car following abdominal operations such as caesarean section or hysterectomy is important for women. Safety of the woman, any passengers and other road users is of high importance. Women need to be able to sit comfortably, work the controls, wear a seatbelt, look over their shoulder, make an emergency stop, and should not be using any medication including pain killers that cause sedation. Women should talk to their doctor or health care provider about their health and ability to drive, before restarting driving. They should also check their relevant insurance status. Considerations are stricter for women driving commercial vehicles as the risk from commercial vehicle crashes are higher.

2. Summary of recommendations

Good Practice Point 1	Grade
Health care providers should give women advice about returning to activities of daily living, including "fitness" and ability to drive, after surgery. Women should be advised to assess whether they can comfortably sit in the car, work the controls, wear a seatbelt, look over their shoulder, make an emergency stop, be free from pain and the effects of sedating medications and be aware of the effects of fatigue and distraction, when considering resuming driving after surgery. Advice for commercial vehicle drivers should reflect the increased risk associated with motor vehicle crashes involving such vehicles, compared to private vehicles.	Consensus-based recommendation
Good Practice Point 2	**Grade**
Women should be advised that the period of returning to driving after surgery is variable. It may take 1-6 weeks before women are ready to resume driving after abdominal surgery such as caesarean section.	Consensus-based recommendation
Good Practice Point 3	**Grade**
Insurance companies are generally reliant on medical advice regarding fitness to drive, rather than giving advice about readiness to drive. Women should discuss their health with their doctor and enquire from their insurance companies whether there are any policy exclusions.	Consensus-based recommendation

3. Introduction

Women are given a wide range of advice about resuming driving after surgery, ranging from avoiding driving for long periods of time to driving when they are ready.[1,2] The pattern of recovery after abdominal surgery including caesarean delivery and hysterectomy can be highly variable between individuals, and depends on many factors, including type of surgery, medical conditions as well as driving experience and external factors. There are no universal guidelines to advise when women may recommence driving after abdominal surgery including caesarean section or abdominal hysterectomy.

4. Discussion and recommendations

4.1. What factors should women take into account when considering resuming driving after surgery?

The ability to brake in an emergency and perform unexpected manoeuvers is essential to safe driving, and this ability may be compromised by pain and or reduced freedom of movement. Fatigue and the influence of sedating medications are also important considerations when considering returning to driving. Opioid medication and benzodiazepine medication have been shown to be associated with increased risk of accidents.[3,4] Specific medical conditions (such as diabetes or depression), type of surgical incision/ surgery, underlying disease (such as cancer), operative complications, driving experience, training and ability, length of trips, and type of vehicle may also influence driving capacity. External road environment factors may also influence the driving task such as the natural environment (e.g. night, extremes of weather), traffic, road conditions and terrain.[5] Organisational factors such as trip purpose, distance, and time pressures may affect the decision to drive: this may include the need for women to visit their newborn in the neonatal intensive care unit after caesarean section. In addition, sleep deprivation and passengers and their potential to distract the driver, may also influence driving.[5]

Women should be advised to assess whether they can comfortably sit in the car, work the controls, make an emergency stop, wear a seatbelt and look over their shoulder, and have minimal pain, when considering resuming driving after surgery. Drivers and passengers must wear a seat belt at all times. The recommendations for commercial vehicle drivers are more stringent than private standards, and reflect the increased risk associated with motor vehicle crashes involving such vehicles.[5] Hence, advice for commercial vehicle drivers may differ.

Good Practice Point 1	Grade
Health care providers should give women advice about returning to activities of daily living, including "fitness" and ability to drive, after surgery. Women should be advised to assess whether they can comfortably sit in the car, work the controls, wear a seatbelt, look over their shoulder, make an emergency stop, be free from pain and the effects of sedating medications and be aware of the effects of fatigue and distraction, when considering resuming driving after surgery. Advice for commercial vehicle drivers should reflect the increased risk associated with motor vehicle crashes involving such vehicles, compared to private vehicles.	Consensus-based recommendation

4.2. When can a woman resume driving a car after surgery?

There are two issues to consider when re-commencing driving after surgery: firstly, the ability to drive safely that may be affected by surgery, and secondly, how driving may impact healing after surgery.

In general, it may take 1-6 weeks before women are ready to resume driving after abdominal surgery such as caesarean section. However, some women may be ready later than this. A small study utilising a driving simulator post caesarean section found no difference in women's driving capacity between early driving (2-3 weeks) compared to later driving (5-6 weeks).[6] A survey of obstetricians and gynaecologists in Australia and New Zealand and Australian midwives found that most clinicians thought that women resumed driving in the first 1-3 weeks post caesarean or hysterectomy.[2] However, clinicians surveyed advised women to abstain from driving for a wide range of times, from no specific time to 6 weeks. A third of respondents recommended women did not drive until 6 weeks, a quarter did not give a time and

around 15% stated that they thought women were fit to drive within 1-2 weeks of surgery.[2] A multidisciplinary consensus statement from the Netherlands about returning to activities after gynaecological surgery, concluded that women can resume moderate activities including driving at 3-4 weeks after abdominal hysterectomy and 3 weeks after vaginal hysterectomy.[7] A Canadian study showed that women had a lower rate of motor vehicle accidents in the year after childbirth, compared to pre-pregnancy or in pregnancy.[8] However, in the year following a birth, women may be driving less often, and for shorter time periods, so this data should be interpreted with caution. In comparison, in Australia people are not permitted to drive for 6 weeks post heart transplant or for at least four weeks post abdominal and thoracic aneurysm repair, however this is based on limited data on driving performance.[5] The evidence about driving after orthopaedic surgery has recently been reviewed, and found that patients who have lower limb surgery such as a right knee replacement or right hip replacement have outcome measures such as brake time, return to normal at a range of 2-8 weeks postoperatively.[9]

There is little information about how activities of daily living including driving, impact on healing after abdominal surgery. There may be benefits to early resumption of activities of daily living after surgery. Providing information about resumption of activities post-surgery may also be beneficial. A recent randomised trial after abdominal and gynaecological laparoscopic surgery in the Netherlands found that a personalised e-health intervention informing patients about time to return to activities of daily living led to a reduction in the time taken to return to normal activities and a positive effect of social participation and physical function.[10] The evidence about recovery after pelvic surgery has recently been reviewed.[11] This found that patients are more satisfied with less strict post-operative limitations, and less restrictive activity may not have any significant negative impacts on healing. A recent stepped wedge cluster randomised trial in the Netherlands found that women who were given surgery specific structured advice about returning to activities including driving after gynaecological surgery including abdominal hysterectomy, had a reduction in time to return to work, decreased pain and an improvement of quality of life compared to women having usual care.[12]

Good Practice Point 2	**Grade**
Women should be advised that the period of recovery after surgery is variable. It may take 1-6 weeks before women are ready to resume driving after abdominal surgery such as caesarean section.	Consensus based recommendation

4.3. What are the insurance implications of driving after surgery?

Insurance companies are generally reliant on medical advice regarding fitness to drive, rather than giving advice about readiness to drive. Insurance companies surveyed in Australia stated that all women would be fully insured after caesarean section if they were given medical clearance to drive.[1] A review of the medical and legal implications of driving after surgery in the United Kingdom discussed that if the patient followed the doctor's advice, felt safe to drive and then drove in a reasonable way, he/she would be covered by insurance.[13] It is recommended that patients direct enquiries to their insurance company regarding any policy requirements or exclusions related to driving after abdominal surgery including caesarean delivery.

If a health professional assesses a condition to temporarily affect driving ability, they may advise a patient to abstain from driving for an appropriate period. This does not need to be reported to the driver licencing authority.[5] Health professionals are advised to note in the patient's medical record the nature of the advice given.[5] Drivers may be liable at common law if they continue to drive knowing that they have a condition that is likely to adversely affect safe driving. Drivers should be aware that there may be long-term financial, insurance and legal consequences where there is failure to report an impairment to

their driver licensing authority.[5] The health professional has an ethical obligation, and potentially a legal one, to give clear advice to the patient in cases where an illness or injury may affect safe driving ability.

Further information about assessing fitness to drive in Australia and New Zealand can be found by consulting the fitness to drive guidelines.[5] [14]

Good Practice Point 3	Grade
Insurance companies are generally reliant on medical advice regarding fitness to drive, rather than giving advice about readiness to drive. Women should discuss their health and fitness with their doctor and enquire from their insurance companies whether there are any policy exclusions.	Consensus based recommendation

5. Conclusion

The pattern of recovery after surgery is variable. Women and their clinicians should consider a number of factors when considering resumption of driving after abdominal surgery including caesarean section and hysterectomy.

6. References

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5. Austroads, National Transport Commission. Assessing fitness to drive for commercial and private vehicle drivers: medical standards for licensing and clinical management guidelines. . Austroads Publication No AP-G56-17; 2017.
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10. van der Meij E, Anema JR, Leclercq WKG, et al. Personalised perioperative care by e-health after intermediate-grade abdominal surgery: a multicentre, single-blind, randomised, placebo-controlled trial. *Lancet* 2018; **392**(10141): 51-9.
11. Murphy M. Restrictions and limitations after pelvic floor surgery: what's the evidence? *Curr Opin Obstet Gynecol* 2017; **29**(5): 349-53.
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13. Giddins GE HA. "Doctor, when can I drive?": a medical and legal view of the implications of advice on driving after injury or operation. *Injury* 1996; **27**(7): 495-7.
14. New Zealand Transport Agency, New Zealand Government. Medical aspects of fitness to drive. A guide for medical practitioners 2014.

7. Other suggested reading

Assessing fitness to drive for commercial and private vehicle drivers: Medical standards for licensing and clinical management guidelines. Austroads and National Transport Commission. March 2017. Available at: https://austroads.com.au/__data/assets/pdf_file/0022/104197/AP-G56-17_Assessing_fitness_to_drive_2016_amended_Aug2017.pdf

New Zealand Transport Agency, New Zealand Government. Medical aspects of fitness to drive. A guide for medical practitioners 2014. https://www.nzta.govt.nz/assets/resources/medical-aspects/Medical-aspects-of-fitness-to-drive-A-guide-or-health-practitioners.pdf

8. Links to other College statements

Evidence-based Medicine, Obstetrics and Gynaecology (C-Gen 15)
https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical%20-%20General/Evidence-based-medicine,-Obstetrics-and-Gynaecology-(C-Gen-15)-Review-March-2016.pdf?ext=.pdf

9. 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 and Board Member
Dr Gillian Gibson	Deputy Chair, Gynaecology
Dr Scott White	Deputy Chair, Obstetrics and Subspecialties Representative
Associate Professor Ian Pettigrew	Member and EAC Representative
Dr Kristy Milward	Member and Councillor
Dr Will Milford	Member and Councillor
Dr Frank O'Keeffe	Member and Councillor
Professor Steve Robson	Member
Professor Sue Walker	Member
Dr Roy Watson	Member and Councillor
Dr Susan Fleming	Member and Councillor
Dr Sue Belgrave	Member and Councillor
Dr Marilyn Clarke	ATSI Representative
Associate Professor Kirsten Black	Member
Dr Thangeswaran Rudra	Member
Dr Nisha Khot	Member and SIMG Representative
Dr Judith Gardiner	Diplomate Representative
Dr Angela Brown	Midwifery Representative, Australia
Ms Adrienne Priday	Midwifery Representative, New Zealand
Ms Ann Jorgensen	Community Representative
Dr Rebecca Mackenzie-Proctor	Trainee Representative
Dr Leigh Duncan	Maori Representative
Prof Caroline De Costa	Co-opted member (ANZJOG member)
Dr Christine Sammartino	Observer

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 November 2012 and was most recently reviewed in March 2020. 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 to answer the clinical questions was undertaken.
- At the February 2020 teleocnference, 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 B part iii)

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 Full 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.