



Position statement on the appropriate use of diagnostic ultrasound

Position statement of The Royal Australian College of Obstetricians and Gynaecologists (RANZCOG), the Australasian Society for Ultrasound in Medicine (ASUM) and the Royal Australian and New Zealand College of Radiologists (RANZCR).

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.

First endorsed by RANZCOG: November 2006
Current: March 2015
Review due: March 2018

Objective: To provide advice on the appropriate use of diagnostic ultrasound.

Target audience: Health professionals providing maternity and gynaecological care, and patients.

Background: This statement was first developed by Women's Health Committee in November 2006 and most recently reviewed in March 2015.

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

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), the Australasian Society for Ultrasound in Medicine (ASUM), and the Royal Australian and New Zealand College of Radiologists (RANZCR) are committed to ensuring the maintenance of the highest standard of medical care for pregnant women.

Diagnostic medical ultrasound technology offers enormous benefits in terms of the provision of useful diagnostic information so that pregnancy may be better assessed and managed, with optimum outcomes for mothers and babies achieved.

The use of diagnostic medical ultrasound equipment requires regulation such that its primary use is for the purpose of medical diagnosis. Such regulation should require that the diagnostic ultrasound equipment usage be restricted to appropriately qualified health care professionals.

Usage of such equipment should conform to the guidelines produced by the Australasian Society for Ultrasound in Medicine.

Appropriate regulation by appropriate authorities regarding the sale, distribution and use of diagnostic ultrasound equipment should be formulated with a view to ensuring that this technology continues to assist clinicians in the management of pregnancy, thereby optimising outcome for mothers and babies.

Confining the use of diagnostic Medical ultrasound equipment in pregnancy to examinations for the purpose of providing medical information useful to the management of pregnancy is based on the following principles:

1. Bioeffects and safety

It is widely accepted that diagnostic ultrasound when used as per guidelines promoted by bodies such as the Australasian Society for Ultrasound in Medicine has not been demonstrated to be associated with deleterious effects in human tissue. Such statements do not guarantee the absolute safety of diagnostic ultrasound but rather emphasises that the long term effects and the possibility of subtle effects are not completely known. Prudent use is therefore recommended in order to minimise the chance of significant bioeffects.

In terms of exposure to diagnostic ultrasound, all learned bodies emphasise the ALARA (as low as reasonably achievable) principle. This principle emphasises that diagnostic medical ultrasound equipment be used by trained individuals to seek relevant diagnostic information with the minimum of exposure, thereby minimising the potential for bioeffects and tissue damage.

2. Non-medical use of Ultrasound poses some risk to the care of pregnant women and their fetuses, which are summarised below;

(i) The social use of Diagnostic Medical Technology

The social use of diagnostic medical technology and the role of trained technical and medical professionals will inevitably erode the significant relationship between health care providers and patients that currently exists. This will ultimately be to the significant detriment of the maintenance of the high standard of practice upon which optimum medical outcomes are based.

(ii) Potential for Misdiagnosis

The potential clearly exists for not detecting significant diagnoses. Pregnant women may believe that this form of examination is an adequate substitute for a properly conducted examination involving appropriately trained sonographers and medical practitioners. A potential problem is also created

where the abnormalities are incorrectly diagnosed or doubt regarding normality is created, thereby producing significant patient anxiety.

(iii) **Fetal considerations**

Ensuring that the fetus is not exposed to a source of potential harm where no health benefit exists.

Useful website links

Australasian Society for Ultrasound in Medicine (ASUM) <http://www.asum.com.au/>

(Under 'Non-diagnostic Applications' and select 'F1 Statement on the appropriate use of diagnostic ultrasound equipment for non-medical entertainment ultrasound'.)

Links to other College statements

[HGSA/RANZCOG Prenatal screening and diagnosis of chromosomal and genetic abnormalities in the fetus in pregnancy \(C-Obs 59\)](#)

[HGSA/RANZCOG Prenatal assessment of fetal structural abnormalities \(C-Obs 60\)](#)

[RANZCOG Prenatal screening for adverse pregnancy outcomes \(C-Obs 61\)](#)

[Evidence-based Medicine, Obstetrics and Gynaecology \(C-Gen 15\)](#)

Appendices

Appendix A Women's Health Committee Membership

Name	Position on Committee
Associate Professor Stephen Robson	Chair and Board Member
Dr James Harvey	Deputy Chair and Councillor
Associate Professor Anusch Yazdani	Member and Councillor
Associate Professor Ian Pettigrew	Member and Councillor
Dr Ian Page	Member and Councillor
Professor Yee Leung	Member of EAC Committee
Professor Sue Walker	General Member
Dr Lisa Hui	General Member
Dr Joseph Sgroi	General Member
Dr Marilyn Clarke	General Member
Dr Donald Clark	General Member
Associate Professor Janet Vaughan	General Member
Dr Benjamin Bopp	General Member
Associate Professor Kirsten Black	General Member
Dr Jacqueline Boyle	Chair of the ATSIWHC
Dr Martin Byrne	GPOAC representative
Ms Catherine Whitby	Community representative
Ms Sherryn Elworthy	Midwifery representative
Dr Nicola Quirk	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 November 2006 and was most recently reviewed in March 2015. 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 March 2015 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 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.