



Training Program Handbook

Certification in Obstetrical and Gynaecological Ultrasound (COGU)

ranzcog.edu.au

IMPORTANT NOTICE: INFORMATION AND REGULATIONS IN THIS HANDBOOK

RANZCOG Regulations

Every effort has been made to ensure that the Information and College Regulations in this Handbook were correct at the time it was produced.

[RANZCOG Regulations](#)

RANZCOG Policies Relating to Training

For all the RANZCOG policies governing the COGU Subspecialty Training Program refer to:

[RANZCOG Policies and Procedures Directory](#)

Updates

A regularly updated version of the Handbook is available on the RANZCOG website, and readers should always consult the website version when checking Information or regulations:

Published by

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, Djeembana, 1 Bowen Crescent, Naarm (Melbourne), Victoria 3004, Australia

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Table of Contents

IMPORTANT NOTICE: INFORMATION AND REGULATIONS IN THIS HANDBOOK	2
Table of Contents	2
College Vision, Mission and Values	5
College Information	6
College Training and Education Committees	7
Bullying, Harassment and Discrimination in the Workplace Policy	9
Trainee Support	9
RANZCOG Exceptional Circumstances, Special Consideration and Reconsideration	10
Training Administration	11
Components of the COGU Subspecialty Training Program	11
A Year-By -Year Guide for Trainees	13
Requirements of the COGU Subspecialty Training Program	14
Eligibility to Commence Training in the COGU Subspecialty Training Program	16
Training Documentation	19
Scholarly Elective: Research Stream (Research Project)	22
Scholarly Elective: Non-Research Stream	24
In-Hospital Clinical Assessment (IHCA)	25
Research Based Discussion (RbD)	26
Examinations - Written and Oral	27
Certification as a COGU Subspecialist	29
Curriculum	30
Aims	30
1. Knowledge and Understanding	33
1.1 Anatomy	34
1.2 Embryology	35
1.3 Reproductive Physiology and Endocrinology	36
1.4 Pathophysiology	37
1.5 Genetics	38
1.6 Principles of Screening	41
1.7 Physics	42
1.8 Obstetric Ultrasound	45
1.9 Early Pregnancy	49
1.10 Gynaecological Ultrasound	51
1.11 Other Imaging Modalities	54
1.12 Obstetric Diagnostic and Therapeutic Interventions	54
1.13 Research	56
2. Management and Professional Responsibilities	58
2.1 Management	59
2.2 Administration	59
2.3 Clinical Service Delivery	59
2.4 Teaching	59
2.5 Ethics, Law and Culture	60
Recommended Resources	62

Appendices	64
Acronyms	64
Abbreviations Used/Accepted in COGU Subspecialty Examinations and Training Documentation	65
Glossary of Terms	70

College Vision, Mission and Values

Vision

Excellence and equity in women's health

Mission

To continue to lead in education and training in obstetrics and gynaecology, and advocacy in women's health

Values

Advocacy

We are a leading voice for equity, social justice, fairness and evidence-based policy

Education

We embrace the opportunity to learn, share knowledge and experience through innovation, discovery and research

Excellence

We are committed to performance at the highest standard in our work, training, research and support.

Integrity

We act honestly, ethically and with accountability towards everyone and in everything we do

Kindness

We act with compassion and care towards ourselves and one another.

Respect

We expect and promote inclusivity, valuing individual rights, beliefs and choices



College Information

Staff Contact Details

COGU Subspecialty Training Program Coordinator

Phone: +61 3 9412 2956

Email: cogu@ranzcog.edu.au

Examinations Department

Email: assessment@ranzcog.edu.au

Training and Support Unit

Email: traineeliasion@ranzcog.edu.au

Phone: +61 8 6102 2096

Website: [RANZCOG Member Wellbeing and Support](#)



College Training and Education Committees

Standing Committees of the Board have been established to formulate and review training and assessment requirements leading towards the attainment of Subspecialty certification. Board committees usually meet in March, July and November.

Certification in Obstetrical and Gynaecological Ultrasound (COGU) Subspecialty Committee

Chair: Dr Ritu Mogra

The COGU Subspecialty Committee is responsible for overseeing the formulation and review of training, accreditation and assessment policies leading towards the attainment of Obstetrical and Gynaecological Ultrasound Subspecialty Certification of the College. It reports to the RANZCOG Board via the Subspecialties Committee and Education Standards Committee (ESC). Recommendations on assessment matters are referred to the RANZCOG Board through the Subspecialties Committee and the Examinations and Assessment Committee; recommendations on training and accreditation matters are referred to the RANZCOG Board through the ESC and Subspecialties Committee. Recommendations concerning Specialist International Medical Graduates (SIMG) assessments for RANZCOG subspecialty recognition are referred by the Committee through the Subspecialties Committee, ESC and SIMG Committee to the RANZCOG Board for consideration.

All correspondence pertaining to the work of these Committees should be forwarded to the Chair of the relevant Committee at the address below:

RANZCOG, Djeembana
 1 Bowen Crescent
 NAARM (MELBOURNE) VIC 3004
 Email: cogu@ranzco.edu.au

Subspecialties Committee

Chair: A/Prof Michael Rasmussen

The Subspecialties Committee, through its five (5) Subcommittees, is responsible for overseeing the formulation and review of the training, assessment and accreditation policies leading towards the attainment of Subspecialty certification of the College. Recommendations on assessment matters are referred to the RANZCOG Board in conjunction with the EAC; Recommendations on training and accreditation matters are referred directly to the RANZCOG Board. The committee is responsible for the assessment of Specialist International Medical Graduates (SIMGs) for RANZCOG Subspecialist recognition and reports directly to the RANZCOG Board on this matter.

Such training, assessment and accreditation matters include, but are not limited to:

- Overseeing the process of ongoing development, coordination and maintenance of the College's Subspecialty training programs, the assessment of the trainees enrolled in those programs and approval of Training Supervisors
- Making recommendations to the RANZCOG Board, in conjunction with the College Education and Assessment Committee, on matters relating to the College assessment process, including the Research Project, Written and Oral Examinations and the In-hospital Clinical Examinations
- Overseeing the process of selection of Subspecialty trainees
- Making recommendations to the RANZCOG Board of new training posts and the re-accreditation of existing training posts
- Reporting to and liaising with the Training Accreditation Committee on matters pertaining to Subspecialty training

- Making recommendations to the Continuing Professional Development Committee on matters pertaining to recertification
- Overseeing the process of assessment of International Subspecialists applying for Subspecialty recognition in Australia and New Zealand

Education & Assessment Committee (EAC)

Chair: Dr. Nisha Khot

The EAC is responsible for ensuring, maintaining, and enhancing the integrity, validity and reliability of the individual and collective education and assessment components and associated processes pertaining to training programs run and administered by the College.

Such assessment components include, but are not limited to:

- Certificate in Women's Health (CWH), RANZCOG Associate Training Program (Procedural) (PTP), RANZCOG Associate Training Program (Advanced Procedural) (AAPT), FRANZCOG and Subspecialty Written Examinations
- AAPT, FRANZCOG and Subspecialty Oral Examinations
- In-Hospital Clinical Assessments (IHCAs) and In-Hospital Clinical Examinations (IHCEs)
- Research component of the FRANZCOG Curriculum and Subspecialty programs
- Trainee competence in defined O&G surgical procedures

Education Standards Committee (ESC)

Chair: A/Prof. Michael Rasmussen

The ESC oversees the ongoing development and implementation of educational standards across all RANZCOG education, training, assessment and accreditation. The committee is responsible for the College's training programs, including regular monitoring and evaluation and is delegated by the Board to make decisions relating to its area of responsibility.

The responsibilities of ESC include the following:

- Oversight of all education, training, assessment and accreditation of RANZCOG programs to ensure contemporary and high quality delivery;
- consideration of ongoing developments in specialist medical education and training, ongoing monitoring of assessment processes and developments in training modalities, including simulation and other initiatives and consideration of possible application to College education and training programs;
- formulation of recommendations and development of discussion papers regarding strategic initiatives in line with the College's strategic objectives;
- development, implementation, monitoring, and evaluation of the currency, reliability and validity of all components of the RANZCOG Training and Assessment processes;
- reviewing and responding to contemporary practices and AMC and MCNZ Standards for Specialist Medical Training in consultation with key stakeholders as appropriate;
- establishing Recognition of Prior Learning (RPL) panel from its members to assess, review and recommend assessment criteria for applicants who are prospectively approved to commence the FRANZCOG Training Program and see to obtain recognition of relevant training, which predates the commencement of their FRANZCOG training; and
- establishing prevocational pathway panels as required to review requirements for prevocational trainees (as set by AMC/MCNZ), oversee quality assurance and continuous improvement of the RANZCOG PVP (including update of educational content), and ensure completion of the PVP is aligned to FRANZCOG selection requirements.

Bullying, Harassment and Discrimination in the Workplace Policy

This policy relates to the behaviour of members, Fellows, and trainees of the College in roles pertaining to RANZCOG training, including supervision, oversight, reporting and assessment. The purpose of this policy is to protect RANZCOG trainees, members and Fellows against bullying, harassment and discrimination in the workplace. The workplace includes training sites in public and private hospitals, private practice settings and the College environs.

The College is committed to ensuring fair and equitable workplace practices and does not tolerate bullying, harassment or unlawful discrimination in any workplace. Discrimination, bullying and harassment are prohibited by law and workplace participants who engage in such conduct may be held personally liable for their actions. This includes threatening behaviour, intimidation, exclusion or physical violence.

The full *Bullying, Harassment and Discrimination in the Workplace Policy* is available on the RANZCOG website via the following link:

[RANZCOG Policies and Procedures Directory](#)

Trainee Support

Training Support Unit (TSU)

RANZCOG is committed to supporting trainees and therefore has established the TSU. This is a safe, professional and impartial service for trainees to contact should guidance and support, be required.

The Trainee Liaison has a background in mental health, counselling and public health services. The TSU encourages trainees, consultants and Training Supervisors to reach out at times of difficulty. The TSU can also assist with the following:

- processes for management of complaints
- development of resources
- referral to appropriate internal and external support resources and services
- identification of a range of potential intervention strategies

Trainees are encouraged to contact the Trainee Liaison, Senior Coordinator in times of personal or professional stress, anxiety or poor health.

Senior Coordinator, Trainee Liaison

Email: traineeliaison@ranzcog.edu.au

Phone: +61 8 6102 2096

Website: [RANZCOG Member Wellbeing and Support](#)

Converge International

To further support Trainees the TSU has established a partnership with Converge International. (Vitae is the NZ equivalent).

Converge International is a confidential support service that is open to our Trainees, 24/7- 365 days a year. This service can be utilised for any personal or work-related matter.

- support is confidential and private
- EAP Counselling, Family Assist and Crisis Telephone Counselling Sessions (these are funded by RANZCOG)
- support that can be tailored to meet our Trainees needs (face-to-face, telephone or online)
- services are available across Australia and New Zealand (Vitae – NZ equivalent)

For more information please contact: Converge International on:

Phone: 1300 687 327 (Australia)

Phone: +64 0800 666 367 (New Zealand)

Phone: +61 386 205 300 (International)

Website: [Converge International](#)

RANZCOG Exceptional Circumstances, Special Consideration and Reconsideration

This policy outlines the criteria and processes by which those individuals subject to RANZCOG regulations and/or policies pertaining to a range of requirements, including those associated with training and assessment, may apply for variation to the normal requirements on the grounds of exceptional circumstances that may justify special consideration.

As such, the application of this policy includes the following groups:

- Applicants for a position on a RANZCOG training program
- Trainees undertaking the basic or advanced training components of the RANZCOG training program
- Trainees undertaking a RANZCOG subspecialties training program
- Trainees undertaking the Certificate of Women's Health, PTP or the APTP
- Specialist International Medical Graduates (SIMG) being assessed for comparability to a RANZCOG trained specialist in obstetrics and gynaecology or suitability for an area of need position, or undertaking training / assessment / supervision requirements as part of a pathway to obtain RANZCOG Fellowship
- SIMG being assessed for comparability to a RANZCOG trained Subspecialist or undertaking training / assessment requirements as part of a pathway to obtain certification by RANZCOG as a Subspecialist
- Fellows and other College members required to undertake a Continuing Professional Development (CPD) program

Exceptional Circumstances and Special Consideration Policy is available on the RANZCOG website via the following link:

[Exceptional Circumstances and Special Consideration Policy](#)

This policy should be read in conjunction with the RANZCOG reconsideration review and appeals procedures, and the processes described therein. This is available on the RANZCOG website via the following link:

[Reconsideration Review and Appeal of Decisions Policy](#)

Training Administration

Components of the COGU Subspecialty Training Program

The COGU Subspecialty training program consists of three (3) clinical years, all of which must be prospectively approved. It includes the following elements:

The first year of training must be undertaken in an accredited COGU training position in a public hospital in Australia or New Zealand. In Year 1 of training, it would be permissible for a trainee to have up to two sessions per week in private practice to compliment the public hospital training position.

A minimum of two years of the overall three-year clinical training program must be undertaken in an accredited clinical O&G ultrasound position within a public hospital in Australia or New Zealand. Trainees must train in a minimum of two training units during the three-year clinical program. The minimum time in one unit must be the equivalent of six months' full-time training.

Minimum Procedures

Certification as an Obstetrical and Gynaecological Ultrasound Subspecialist requires a minimum number of procedures to be personally performed during the clinical training period as follows:

A minimum of 300 procedures over three (3) year's full-time training including at least:

- 100 Amniocentesis procedures
- 100 CVS procedures
- 100 tubal assessments / other gynaecological procedures

A minimum of 2,000 ultrasound scans per year in Year 1 and 2 fulltime including at least:

- 400 mid-trimester scans per year
- 500 gynaecological scans per year
- A minimum of 300 12 week / NT scans over three (3) years full-time training
- A minimum of 50 scans of monochorionic twin (or higher order) pregnancies over three (3) years full-time training
- A minimum of 150 structural fetal anomalies over three (3) years full-time training.
- A minimum of 40 supervised detailed scans of deep infiltrating endometriosis over three (3) years full-time training (these will be included in the total number of gynaecological scans).
- A minimum of 50 emergency gynaecological scans over three (3) years full-time training (these will be included in the total number of gynaecological scans).
- A minimum of 200 early pregnancy (<11 weeks) emergency assessment scans over three (3) years full-time training. Dating scans excluded.
- A minimum of 20 neonatal head scans over three (3) years full-time training
- A minimum of 50 upper abdominal scans over three (3) years full-time training

It is expected that the number of scans and procedures performed are pro-rata of the time fraction for part-time trainees

Research-based Discussion (RbD)

Completion of Research-based Discussion (RbD) requirements in each year of clinical training.

Genetics Laboratory

Trainees must document in their online logbook of having attended a genetics laboratory for at least one (1) day.

Meeting Attendance

Trainees must document in their online logbook, evidence of having attended the following meetings: perinatal mortality; meetings of a unit managing fetal abnormality; meetings involving clinical management in high-risk obstetrics.

Gynaecological Clinical Meetings Attendance

Trainees must document in their online logbook, evidence of having attended 25 clinical meetings in the area of one or more gynaecological subspecialties.

Approved Training Courses

Ultrasound Lecture Course

Trainees must provide evidence of having attended an approved lecture course in general ultrasound. An acceptable course will cover basic physics of ultrasound; transducers; Doppler; bioeffects and safety; artefacts; contrast agents and harmonics. An acceptable course will involve instruction for at least one (1) hour per week for one (1) semester (or equivalent).

Human Genetics Lecture Course

Trainees must provide evidence of having attended an approved lecture course, or equivalent, in human genetics. An acceptable course will cover genetic counselling; screening for genetic diseases; human cytogenetics; strategies for identifying genes which cause human disease; molecular basis for human disease; gene mapping; polymorphisms; selection and its consequences; gene-environment interactions; ethics in genetic practice.

An acceptable course will involve instruction for at least three (3) hours per week for one (1) semester (or equivalent).

Biostatistics Course

Trainees will be expected to provide evidence of having undertaken and successfully completed, an approved university-based examinable course in biostatistics.

An acceptable course will involve instruction of a minimum 20 hours.

Human Genetics Clinics

Trainees need to see a minimum of thirty (30) genetic cases with at least 50% prenatal. It is expected that trainees will gain exposure to counselling for a range of conditions. Cases must be seen with a geneticist or genetic counsellor. The cases seen must be recorded in the online logbook so that the COGU Subspecialty Chair can confirm that the trainee has had exposure to a suitable range of cases.

A Year-By -Year Guide for Trainees

	Year 1 (46 weeks)	Year 2 (92 weeks)	Year 3 (138 weeks)	Post-Year 3
Prospective Approval	Statement of Understanding (SoU), Registration (Form A) & Prospective Approval (Form B) Submit annually (each calendar year) eight (8) weeks prior to commencement of each training year			Statement of Understanding (SoU) Registration (Form A) Submit annually prior to 31 January
Clinical Training Program Requirements	General Ultrasound Lecture Course must complete in Yr 1			
	Minimum Procedures Personally perform 2,000 scans and procedures	Elective Year One year devoted to an area of special interest		
	Minimum of 300 procedures - 100 amniocentesis, 100 CVS and 100 tubal assessments / other gynaecological procedures Basic Clinical Ultrasound Training - 20% of time in research Human Genetics Lecture Course (or Equivalent) -at least three (3) hours/week for one (1) semester (or equivalent) Biostatistics Course - Complete examinable university-based course Genetic Clinic - Need to see thirty (30) genetic cases with 50% prenatal Genetics Laboratory - Minimum of one (1) day Meetings - Weekly attendance at clinical meetings involving high risk obstetrics/perinatal mortality, clinical management, and fetal abnormality Gynaecological Clinical Meetings attend five- 25 clinical meetings in one (1) of more gynaecological subspecialties Perinatal Pathology - attend five (5) perinatal autopsies or spend one (1) day with a perinatal pathologist			Post Year 3 Progress Report (replaces TAR) Submit 6 monthly report until completion of training components
Clinical Training Program Assessments	Formative Appraisal Report (FAR) 1 per semester submitted within four (4) weeks of the end of each relevant three (3)-month period			
	Training Assessment Record (TAR) 1 per semester Submit within six (6) weeks of the end of each relevant six (6) -month period the following: <ul style="list-style-type: none"> Summative Consultant Assessment Reports Clinical Training Summary (CTS) - two (2) Clinical Training Summaries (one for the period covering the current training period and one cumulative from the commencement of training). Download from My.RANZCOG and attach to the back of the TAR Scholarly Elective Research or Non-Research Stream Progress Report Online Trainee Feedback Survey 			
	Research-based Discussion (RbD) Select and analyse three (3) research articles and be formally assessed on one of these, selected by the assessor, each training year. (Preferably submitted with TAR)			
	In Hospital Clinical Assessment (IHCA) - Level One (1) and Two (2) to be completed by end of Year 2		IHCA - Level Three (3) to be completed by end of Year 3	
Examinations	Written and Oral Examinations - first(1 st) attempt after forty-six (46) weeks FTE satisfactory training.			
Scholarly Elective: Research Stream and Non-Research Stream	Prospective Approval Proposal & Timeline (to be included with TAR 1.1) <i>Research Stream Proposal</i> <i>Non-Research Stream Application for Course</i>	Trainee Submission Timeframes - Research Stream Option For trainees who commenced Subspecialty training from 1 December 2018 the Research Stream must be submitted for assessment within <u>one (1) year</u> of completion of clinical training and satisfactorily assessed within three (3) years of completion of clinical component of CMFM training program.		
	Prospective Approval Final Proposal & Timeline (to be included with TAR 1.2) <i>Research Stream Final</i> including Ethics Committee approval (if required) <i>Non-Research Stream Final Approval of Course</i>	Trainee Submission Timeframes Non-Research Stream Option For trainees who commenced Subspecialty training from 1 December 2018 the Non-Research Stream must be satisfactorily completed prior to the three (3) years of clinical training (138 weeks). All Non-Research Stream trainees must submit evidence of completion of the prospectively approved course and will be approved by the CMFM Subspecialty Committee Non-Research Advisors team.		

Requirements of the COGU Subspecialty Training Program

Clinical Training Program Requirements

- Each year of clinical training (Years 1 – 3) must be prospectively approved
- Year 1 of clinical training must be spent in a prospectively approved RANZCOG accredited COGU Subspecialty training unit in Australia and may be completed either as part-time (minimum 0.5FTE) or full-time training
- Subsequent years may be completed either full-time or part-time, with a maximum of two (2) years extended leave
- Must be undertaken in a minimum of two (2) accredited COGU Subspecialty training units during the three (3)-year training program unless otherwise prospectively approved by the COGU Subspecialty Committee. The minimum time in one (1) unit will be the equivalent of six (6) months' full-time training
- Direct supervision by a non-COGU Subspecialty Subspecialist must not constitute more than 50% of training time (in Years 2 and 3)
- Clinical training must be completed in five (5) years (excluding extended leave)
- First two (2) years must be spent in an Australian training position
- One year (third year only) in an area of special interest relevant to O&G ultrasound with at least 50% time in clinical ultrasound
- Two years (full-time equivalent) in a clinical ultrasound position with a minimum and maximum of 20% of time spent in ongoing research

Clinical Training Program Assessments

- Trainees are required to complete and submit the following documents as part of their COGU Subspecialty training:
 - Prospective Approval (PA): Annually
 - Formative Appraisal Report (FAR): mid semester
 - Training Assessment Record (TAR): six (6)-monthly
 - Post-Year 3 Training Progress Report: six (6) -monthly

Prior to completing the three (3) -year training program trainees must complete the following:

- Prospectively approved courses:
Ultrasound lecture course, Human Genetics lecture course or equivalent and a Biostatistics course
- 30 genetic cases with 50% prenatal
- Five (5) perinatal autopsies or spend one (1) day with a perinatal pathologist
- Genetics laboratory - One (1) day minimum
- Weekly attendance at clinical meetings involving high-risk pregnancy/perinatal mortality, clinical management, and fetal abnormality
- Attendance at a minimum twenty-five (25) clinical meetings in one (1) or more gynaecological subspecialties
- Personally perform a minimum of 2,000 scans per year in Years 1 and 2 and a minimum of 300 procedures over three (3) years of full-time training
- Completion of Research-based Discussion (RbD) requirements in each year of clinical training

- Completion of ten (10) Summative In-Hospital Clinical Assessments (IHCA) over the three (3) years of clinical training

Elective Year – Year 3

This elective year may only be undertaken during the third year of training. The COGU Subspecialty Committee must prospectively approve the elective year and the special interest topic.

One year of training can be devoted to an area of special interest relevant to O&G Ultrasound. During this elective year trainees should continue to spend at least 50% of their time in clinical ultrasound.

Below are some of the suggested areas of study for the special interest year.

Obstetrics

- Cytogenetics
- Neonatology
- Genetics
- Perinatal pathology

Gynaecology

- Urogynaecology
- Minimally invasive procedures
- Infertility
- Gynaecological oncology

Other

- MRI
- Breast ultrasound and screening
- Pathology
- General abdominal ultrasound
- Other imaging modalities

Eligibility to Commence Training in the COGU Subspecialty Training Program

Following the Subspecialty Selection process, and after being deemed eligible for COGU training, to become a COGU trainee, doctors must

- Have the FRANZCOG or have the following:
 - For those trainees who commenced the FRANZCOG Training Program during the period 1 December 2003 to 30 November 2013 they must have successfully completed all requirements of core training in the FRANZCOG Training Program as well as the FRANZCOG Written and Oral examinations, and advanced surgical skills assessment.
 - For those who commenced the FRANZCOG Training Program on or after 1 December 2013 they must have successfully completed all requirements of core training in the FRANZCOG Training Program, which includes the FRANZCOG Written and Oral examinations, as well as satisfactorily completed the research component of the FRANZCOG Training Program.
- Current Medical Registration with the Medical Board of Australia (MBA) as per *Regulation C1.2.2.3*
- An appointment to an accredited COGU Subspecialty training position
- Submission and approval of the Prospective Approval (PA) Application

Prospective Approval (PA)

Following confirmation of being selected eligible to join the COGU Subspecialty Training Program, trainees must be prospectively approved for training at least eight (8) weeks prior to the commencement of training. Only training that has been prospectively approved will be credited by RANZCOG.

To be prospectively approved, applicants applying to commence the COGU Subspecialty Training Program should complete the following:

- Statement of Understanding (SoU);
- Registration Form A (Reg); and
- Prospective Approval Form B (PA)

These forms can be found on the RANZCOG website via the following link:

[COGU Subspecialty Training Documents and Resources](#)

In some circumstances, a trainee who was selected as eligible to join the COGU Subspecialty Training Program, may be eligible to begin their training in August of the year they were interviewed provided the applicant:

- Is already working in an accredited training unit with an accredited position available for them to commence in August; and
- Has completed eligibility requirements for commencement for COGU Subspecialty training as per the RANZCOG Regulations or is a FRANZCOG.

In such a case, a SoU, Reg and PA must still be submitted eight weeks prior to the commencement of training. If commencing in August, this Prospective Approval will apply for six (6) months (one (1) semester only).

All COGU Subspecialty trainees are required to apply for Prospective Approval of training for each calendar year of clinical training. Applications for SoU, Reg and PA must be submitted at least eight (8) weeks prior to commencement of the relevant training period.

Some trainees find that circumstances and opportunities change from their prospectively approved position during the COGU Subspecialty Training Program. The trainee and the Training Supervisor should communicate this to the COGU Subspecialty Committee Chair as soon as possible.

Applying for Part-Time Training

For trainees in the COGU Subspecialty Training Program, Years 1 - 3 may be undertaken as part-time training.

All part-time training must be at least half of the full-time training requirement (0.5FTE) for the relevant training period. The duration of the training program will be extended for that trainee. All part-time training must include a range of experience appropriate to the trainee's year level and must include appropriate supervision.

Applying for Leave from COGU Subspecialty Training

Annual Leave and Professional Development Leave (PDL)

The maximum number of weeks able to be credited in any period covered by a six (6)-monthly summative assessment is twenty-six (26) weeks FTE with a maximum of forty-six (46) weeks FTE of training able to be credited for training undertaken in a 'Subspecialty training year'.

A 'Subspecialty training year' consists of two (2) consecutive 'six (6) month training blocks' based around (but not confined to) a calendar year and is determined by the COGU Subspecialty Committee. This applies irrespective of any government or hospital leave entitlements which may operate in a particular state or region.

In addition to the six (6) weeks leave per year allowed, trainees are permitted up to two (2) weeks (10 days) of study-conference leave per year, which is recognised as part of active clinical services professional development.

With each six (6)-monthly summative assessment, the trainee and their supervisor must sign off on the number of weeks of leave taken during the six (6)-month training period. The nature of the leave must also be indicated.

Extended Leave

Trainees may interrupt their training to take extended leave from the training program for a maximum of 104 weeks cumulative, but only 52 weeks' leave can be approved at any one time and includes parental leave taken while on the training program.

All extended leave must be prospectively approved by the Subspecialty Committee Chair and as from 1 August 2019 the '*clock will stop*' when a trainee applies for extended leave and will not be included in the aggregate of time requirements in the COGU Subspecialty Training Program.

The application for extended leave approval must be made with the knowledge and agreement of the Training Supervisor.

Accredited Training Units

Prospective candidates should note that trainees commencing the COGU Subspecialty Training Program must undertake training in a minimum of two (2) accredited COGU Subspecialty training units, with different Training Supervisors, during the three (3)-year clinical training program. The minimum time in one unit will be the equivalent of six (6) months' full-time training.

The intent of the requirement is to ensure that trainees are exposed to educational and training diversity with a variety of procedures and methods that are obtained with different Training Supervisors preferably in different geographical locations. If the COGU Subspecialty Committee

considers that the intended second training unit is not substantially different from the first training unit, the application may be declined, and the trainee will require to find another unit either in Australia or overseas.

Training in an Overseas Training Unit

All overseas training must be prospectively approved and assessed by the COGU Subspecialty Committee. Trainees must provide a plan for completion of training on return to Australia and commitment of support from an Australian Training Supervisor.

As with training in Australia, trainees overseas are required to submit all training documentation within the specified timelines to the COGU Training Program Coordinator. The guidelines and regulations that govern registration, fees and training documentation also apply to trainees overseas.

In some overseas hospitals, the consultants with whom the trainee works, and the Training Supervisor may not be familiar with the forms and training documentation requirements. Trainees will need to provide consultants and their Training Supervisors with the necessary documentation and explain how it is used.

Training Documentation

Years 1 – 3 Clinical Training

Online Logbook

Trainees are required to keep a logbook of their daily training for each year of clinical training. The online logbook can be found via the my.RANZCOG training platform at the following link:

[my.RANZCOG Portal - Home](#)

The contents of the logbook must be reviewed online by the Training Supervisor. The trainee logbook must record:

- Clinical training requirements and experience
- Clinic attendance

This record of experience has several functions:

- It provides trainees with a personal record of clinical experience, which can be used to plan further training with the trainee, Training Supervisor or other mentors
- It provides trainees with the information required to complete the six (6)-monthly summary of training experiences which trainees are obliged to submit online
- These six (6)-monthly summaries are used by the Training Supervisors, Program Director and the COGU Subspecialty Committee Chair to monitor the trainee's experience and ensure that it is appropriate for the trainee's year of training
- They are used by the College to monitor the experience provided for the trainee by the hospital units
- It makes up a component of the formal proof of training, which trainees are obliged to provide to the College when requested
- The COGU Subspecialty Committee Chair, or Training Supervisor, or Program Director may view the logbook for verification or clarification of details in the training period

Completing the Online Logbook

- Online logbook is used by each trainee as a personal record of all required procedural and other training experiences in every year of Subspecialty clinical training. Use of the online logbook is mandatory for all trainees
- The online logbook is accessible via any web browser as both a desktop interface and a mobile friendly interface
- A **paper** logbook **should not** be used, nor should any electronic version of the logbook which individual trainees may have created for their own convenience
- Features of the logbook include predictive search for procedures, default hospital settings, and automatic classification and tallying of entries
- Online logbook entries made during a semester are not accessible for supervisors to review. Logbook entries must be provided to Training Supervisors as part of the six (6)-monthly summative assessment process
- The online logbook is an essential proof of training and trainees should keep their logbooks up to date to all times

Total numbers for scans and procedures includes those performed (supervised or independently) by the trainee. Scans/procedures which the trainee assisted are NOT included in the total numbers.

Twins: How do we look at your logbook totals?

- If you do a morphology scan on twins this is counted as 2 morphology scans
- If you do a NT scan/ 12-week morphology scan on twins this is counted as 2 NT/ 12-week morphology scans
- Growth scan in multiple pregnancy – counts as 2 scans
- Multiple pregnancy – if you do a separate needle entry for each twin this counts as 2 procedures for the purpose of the logbook

How to document Multiple Pregnancies:

- Document total scans (+number of extra foetuses) when you complete your logbook. The second foetus is then included when considering whether minimum numbers have been reached. For example:
 - You have done 480 morphology scans. 20 were twin pregnancies - document 480 (+20), therefore you have reached the 500 morphology scan minimum
- Another advantage is that the committee can see how many twin scans you are obtaining in your training

Early pregnancy Scan:

- Include early pregnancy complications such as ectopic / un-sited pregnancies. Generally, pregnancy scans of under 11 weeks fall into this category – or any first trimester scan after 11 weeks in which the anatomy is not assessed

Amniocentesis / CVS:

- Multiple pregnancy – if you do a separate needle entry for each twin this counts as 2 procedures for the purpose of the logbook

Morphology Scan:

- If you do a full / near full morphology scan after 16 weeks prior to amniocentesis, or for detailed assessment in a high-risk patient, this is counted as a morphology scan

Follicle Scans:

- These are scans for the purpose of IVF / other ART cycles, NOT a full gynaecological assessment
- Do not count a gynaecological scan and a follicle count for the same scan

Tubal Assessment:

- For the first 100 tubal assessments you can count a gynaecological scan as well as a tubal assessment, as long as you performed the full gynaecological scan yourself as the primary operator
- After 100 gynaecological scans are counted with you as primary operator, a gynaecological scan CANNOT be counted for the logbook when a tubal assessment is performed

Saline Infusion:

- If this is performed at the same time as tubal assessment; do NOT count it as a separate procedure

Formative Appraisal Report (FAR)

The three (3)-monthly Formative Appraisal Report (FAR) is a compulsory assessment of a trainee's knowledge, skills and attributes. Trainees MUST complete a self-assessment of their strengths and challenges before meeting with their Training Supervisor to discuss their performance during the relevant training period.

The FAR must be completed and submitted within four (4) weeks of the end of each relevant three (3)-month period.

Training Assessment Record (TAR) (including six (6)-monthly consultant summative assessment report)

The six (6) monthly Training Assessment Record (TAR) including the consultant summative assessment report is designed to provide the COGU Subspecialty Committee Chair, Training Supervisor, and RANZCOG with a presentation of all training and assessment achievements. It also enables trainees to record progress made in other components of the COGU Subspecialty Training Program, such as attendance at courses, meetings and clinics.

The TAR must be completed and submitted within six (6) weeks of the end of each relevant six (6)-month period.

Every Six Months, Trainees Must:

- Ensure the online logbook is up to date
- If the training period altered significantly from the prospectively approved timetable (during the six (6) months), trainees must provide details of the changes indicating the altered training experiences
- Complete the trainee section of the Scholarly Elective: Research Stream (Research Project) or Non-Research Stream Progress Report and have the Training Supervisor complete the Training Supervisor section of the report
- Complete the components of the COGU Subspecialty training program record
- Complete the trainee participation in other professional activities record
- All RANZCOG COGU Subspecialty trainees are required to provide a confidential evaluation of their training unit via an online Trainee Feedback Survey. The aim is to identify strengths and weaknesses within training units that, where appropriate, improvements in a training unit may be encouraged. The COGU Subspecialty Committee Chair (or nominee) will contact the trainee to discuss any identified weaknesses and the best approach to improve the situation
- Trainees must complete, review and sign their TAR with their Training Supervisor

Every Six Months, Training Supervisors Must:

- Distribute online consultant assessment reports to each consultant with whom the trainee has worked before the six (6)-monthly summative assessment meeting with the trainee
- This report is used for the following purposes:
 - It provides the supervisor with feedback on the trainee's performance from the consultants with whom the trainee has worked and it provides RANZCOG with feedback on the trainee's progress
 - Where a trainee receives 'below expectation' in two (2) or more competencies by two (2) or more consultants, the Training Supervisor must tick the box 'referred for review to the COGU Subspecialty Committee' on these six (6)-monthly reports and a Learning Development Plan (LDP) must be submitted with the report

- The Training Supervisor must complete, review and sign the TAR with their Trainee

Submitting Training Documentation and Deadlines

Key submission dates are available on the RANZCOG website via the following link:

[Key submission dates](#)

Trainees who do not receive satisfactory six (6)-monthly summative assessment reports must submit a Learning Development Plan (LDP) and may be referred and discussed by the COGU Subspecialty Committee. A recommendation may be made, through the Subspecialties Committee that no credit is given for the period in question. This will extend the training time for the trainee.

Trainees who do not submit the formative appraisal report within four (4) weeks of the end of the relevant training period, or the six (6)-monthly summative assessment within six (6) weeks of the end of the relevant training period, the relevant training period will be assessed as 'Not Satisfactory' **and will not be credited**.

At this time the trainee will receive a letter from the COGU Subspecialty Committee Chair advising this fact and further advising that if there is a second occasion when the three (3)- monthly formative appraisal report or the six (6)-monthly summative assessment are not submitted within the stipulated timeframe, they will be recommended for removal from the program. No further warnings will be provided.

Post-Year 3 Training Progress Report

At the completion of clinical training, trainees are advised to nominate a mentor/supervisor who shall provide input into a six (6)-monthly report on progress toward the completion of any outstanding assessment requirements, including examinations. These reports must be submitted at six (6) months post clinical training and thereafter every following six (6) months, until all requirements are completed, and trainees are eligible to apply for certification.

Please note you must not identify yourself as a Specialist in Obstetrical and Gynaecological Ultrasound until all training requirements are satisfactorily completed, including the Written and Oral examinations as well as the prospectively approved research project and you have been certified by the RANZCOG Board.

Scholarly Elective: Research Stream (Research Project)

A research project, on some aspect of, or pertaining to, the COGU Subspecialty, must be completed by each Subspecialty trainee. The paper that reports on the research must be at a standard to be accepted in a peer-reviewed journal and must meet the criteria. The paper must report on original research work undertaken by the trainee and the trainee must be principal author of the paper. A Cochrane Review, which must be prospectively approved by the COGU Subspecialty Committee, with the trainee as first author, also meets the COGU Subspecialty research requirement.

The research project should be prospectively approved and demonstrate the basic principles of research: original hypothesis testing, research methodology, rigorous scientific method, and approved by the trainee's research and Ethics Committee.

The Prospective Approval of Scholarly Elective Proposal and Timeline draft must be submitted with the first six (6)-month training documentation within the approved timeframe for submission. A detailed final Scholarly Elective: Research Stream with institutional ethics approval, if necessary, must be submitted to the COGU Subspecialty Committee for approval by the end of the first forty-six (46) weeks FTE of training, within the approved timeframe for submission of training documents. Progress reports must be submitted with training documentation with the six (6)-monthly TAR.

Post-Year 3 Training Progress Reports must be submitted at six (6) months post clinical training and thereafter every following six (6) months, until all requirements are completed, and trainees are eligible to apply for certification.

Trainees must nominate a research supervisor. The supervisor could be the trainees previous Training Supervisor or other research mentor.

For trainees who commenced Subspecialty training after 1 December 2018 they must submit their research paper for assessment within one (1) year of completion of clinical training and the research paper must be assessed satisfactory within three (3) years of completion of clinical training or the candidate will be recommended for removal from the training program.

A prospectively approved research project which has been published or accepted for publication in a journal with an impact factor of ≥ 2 or the ANZJOG will not need further assessment but must still be submitted to the COGU Subspecialty Committee.

Scholarly Elective Research Stream Assessment Outcomes

If the study is assessed as 'not satisfactory but suitable for resubmission' by both assessors, the Trainee's nominated research supervisor will assist the candidate to revise the paper which must be resubmitted within six (6) calendar months of notification of the result. The resubmitted study will be assessed by the original assessors.

If the assessors submit differing assessments with minor revisions, the Trainee's nominated research supervisor will assist the candidate to revise the paper which must be resubmitted within six (6) calendar months of notification of the result. The resubmitted study will be assessed by the original assessors.

If the assessors submit differing assessments with major revisions, the relevant Subspecialty Committee Research Advisor, will appoint a third assessor who will assess the study without seeing the comments of the original assessors. The assessment of the third assessor will be the final assessment for the research study.

Scholarly Elective Research Stream Resubmissions

In the event that the assessors submit differing assessments for a resubmitted study a third assessor will be appointed by the relevant Subspecialty Committee who will assess the study without seeing the comments of the original assessors. The assessment of the third assessor will be taken as the final assessment for the research study.

If the study is assessed as unsatisfactory for a second time, the relevant Subspecialty Committee will review the result, and the relevant Chair will provide a report on the Study and its assessments for the full Subspecialties Committee. A recommendation will be forwarded to the Education & Assessment Committee Chair about an appropriate course of action. The final decision on the most appropriate course of action will be made by the Education & Assessment Committee Chair in consultation with the Chair of the relevant Subspecialty Committee.

Important Points

1. Proposals and progress reports of the research paper must be submitted with the TAR
2. Case reports and review articles are not acceptable for the thesis
3. All submissions for assessment must include the candidate statement for research papers detailing the trainee's role in the project. This is available from the RANZCOG website.

Recognition of Prior Research

A formal higher research degree qualification in an area relevant to the Subspecialty may be approved as meeting the requirement for satisfactory completion of the research project. However, trainees to whom this applies will still be expected to be involved in ongoing research during their training.

Trainees who have completed a higher research degree must complete the Exemption from Scholarly Elective (Research Project) Application, available from the College website. This application must be submitted to the COGU Subspecialty Committee Chair with the Year 1 prospective approval on commencement of Subspecialty training.

Details of ongoing research must be documented in the research project progress sections and submitted online.

Scholarly Elective: Non-Research Stream

Commencing 1 February 2023, the Scholarly Elective: Non-Research Stream option will be available to the COGU Subspecialty Training Program. Options for COGU Subspecialty trainees include either:

- Research Stream (previous name “Research Project”) or
- Non-Research Stream

The COGU Subspecialty Committee has introduced a new assessment stream for trainees who wish to undertake further vocational training instead of a research project.

To be considered for Prospective Approval the minimum requirements for the Non-Research Stream option must meet the following requirements:

- The course must progressively build on any previous RANZCOG training and have future vocational relevance
- The course cannot be merely a repetition of a part of the current COGU Subspecialty curriculum.
- The course must provide complementary skill or educational development to the COGU Subspecialty Training Program noting that the course is to:
 - Prepare practitioners for their future careers; and/or
 - Broaden their education and educational opportunities.
- Limited to one (1) course of study (not a combination of several courses)
- The course meets the minimum criteria of an Australia Framework Qualification (AQF) Diploma Level 5 (or above) or New Zealand Framework Qualification (NZQF) Diploma Level 5 (or above)
- The course submitted must be recognized at a Tertiary Institute or Professional College within Australia or New Zealand.

Approval for the Non-Research Stream is subject to the COGU Subspecialty Committee Non-Research Advisors/Chair.

Non-Research Stream Proposal and Timeline

To apply for the Non-Research Stream COGU Subspecialty trainees must submit and complete the Scholarly Elective Proposal and Timeline Application, with the first Training Assessment Record (TAR) which is submitted within the first six (6) months of training. Approval of the Non-Research Stream course must be approved by the end of their forty-six (46) training weeks.

Non-Research Stream Submission and Timeframes

COGU Subspecialty trainees who elect the Non-Research Stream must complete the prospectively approved course within three (3) years of completing the clinical component of training.

Trainees are required to submit progress reports at six (6)-month intervals until successful completion of the course.

All assessment-related components of the Non-Research Stream will be independent of RANZCOG and will rest solely with the institution with whom the training is conducted.

Evidence of completion must be submitted and approved by the COGU Subspecialty Committee. In all cases, the assessment of satisfactory completion rests with the COGU Subspecialty Committee Non-Research Advisors/Chair.

Recognition of Prior Learning (RPL) from Scholarly Elective Non-Research Stream

Where a course equivalent to that required in the Non-Research Stream has been completed prior to Subspecialty Training it may be approved as meeting the requirement for satisfactory completion of the Non-Research Stream of the scholarly elective.

To be considered for Recognition, the course must meet the following criteria:

- The course must have future vocational relevance
- Limited to one (1) course of study (not a combination of several courses)
- The course of study submitted must be recognised at a Tertiary Institute or Professional College.

Assessments for all RPL in the Non-Research Stream will be sanctioned by the relevant COGU

In-Hospital Clinical Assessment (IHCA)

The COGU Subspecialty In-Hospital Clinical Assessment (IHCA) has undergone a review to improve the IHCA for both trainees and assessors. Commencing in 2019 training year, all COGU Subspecialty trainees who have not completed their IHCA will be required to complete the new IHCA.

The COGU Subspecialty IHCA is specifically designed to assess a trainee's scanning technique and is undertaken at the trainee's training site. The COGU Subspecialty Summative IHCA consists of **four (4)** compulsory competencies to be assessed in a number of varying cases and will be conducted at three (3) levels reflecting the three (3) years of training:

Level One: 3 cases -2 obstetric and 1 gynaecological basic skills

Level Two: 2 cases - 1 obstetric and 1 gynaecological basic skills

Level Three: 5 cases - 3 obstetric and 2 gynaecological at a more challenging level

Requirements

The summative IHCA's can be undertaken at any time during the three (3)-year of clinical training. Assessment at Level One (1) and Level Two (2) must be completed by the end of Year 2 clinical training and Assessment at Level Three (3) must be completed by the end of Year 3 clinical training or (138 weeks).

Prior to undertaking Level Three (3) Summative IHCA, trainees must submit the online COGU In-Hospital Clinical Assessment (IHCA) Level 3 Only, application and payment form which can be found here:

[COGU IHCA Level 3 Only application and payment form](#)

Process and Timeframes

In order to undertake summative assessments, trainees must have:

- Undertaken a minimum of two (2) formative assessments of the cases. Formative assessments can be assessed by a sonologist or sonographer of the trainee's choice

- Completed a sufficient number of scans to achieve a satisfactory level of independent skill competency

Suggested timeframe to complete all three (3) levels of the IHCA summative requirements:

End of Year 1 Clinical Training	End of Year 2 Clinical Training	End of Year 3 Clinical Training
Mid trimester – basic skill level	12 week – basic skill level	Mid trimester – complex skill level
Third trimester – basic skill level	Gynaecological – basic skill level	Third trimester – complex skill level
Gynaecological – basic skill level		12 week – complex skill level
		Gynaecological - 2 cases – complex skill level
Summative assessment can be assessed by a SINGLE assessor	Summative assessment can be assessed by a SINGLE assessor	Summative assessment must be assessed by two (2) COGU Subspecialty subspecialists.

Summative assessments must be assessed by COGU Subspecialty Subspecialist only. Where a site is unable to provide a second COGU Subspecialty Subspecialist (Year Three only), the trainee should contact the COGU Subspecialty Training Program Coordinator for an alternative to be arranged via the COGU Subspecialty Chair.

In conducting each case, the COGU Subspecialty IHCA trainee should be able to:

1. Perform ultrasound to a high technical standard whilst addressing the clinical scenario
2. Manipulate machine controls to optimise the ultrasound image
3. Follow recommended protocols or standards expected in the performance of the specified ultrasound examination
4. Display image optimization techniques and be able to demonstrate and describe normal and abnormal anatomy
5. Recognise limited or inadequate views and suggest ways to overcome this
6. Write an appropriate report addressing the clinical scenario.

Assessment Forms and Documents

All COGU Subspecialty IHCA assessment forms and documents are accessible for download from the [RANZCOG website](#)

Research Based Discussion (RbD)

Trainees are expected to complete the RbD requirement for each year of clinical training.

Trainees are required to select and analyse three (3) research articles during the course of the training year in relation to specified criteria listed on the RbD summary sheet. At the end of each training year and before the summative assessment with their supervisor, the trainee must arrange and be formally assessed on one of their chosen articles selected by the assessor. Evidence of completion of the RbD must be submitted with the trainee's end of year documentation to the COGU Subspecialty Training Program Coordinator.

Assessment Forms and Documents

All COGU Subspecialty RbD resources and forms are accessible to download from the [RANZCOG website](#)

Recognition of Prior Learning (RPL)

Where an applicant has completed training in a subspecialty field, it may be counted towards their required training period, reducing their training time as required by the program. For further information, refer to the RANZCOG website via the following link:

[Recognition of Prior Learning Policy and Procedure - RANZCOG](#)

Examinations - Written and Oral

The examination dates, information, format and applications, are available on the RANZCOG website. The information below is subject to change, please refer to the following link:

[Subspecialty Examinations](#)

Eligibility

From 1 January 2023, COGU Subspecialty trainees may make their first attempt at a COGU Subspecialty Written examination after at least forty-six (46) weeks FTE of prospectively approved and satisfactory training in the COGU Subspecialty Training Program.

Applications

Check RANZCOG website for application dates for both the written and oral examinations. Please contact assessment services for application and fee details. This information is available on the website.

Withdrawal

For all enquiries regarding withdrawal from the Written and Oral Examinations, contact Assessment Services.

For further information on withdrawal from the Written and Oral examination, refer to the *RANZCOG Regulation C4.3*.

[RANZCOG Regulations - RANZCOG](#)

Failure to give written notice of withdrawal from the examination or failure to present for an examination will constitute a failure in the examination and forfeiture of the whole examination fee.

Number of Attempts

Subspecialties trainees must attempt for the first time a written or oral Subspecialty examination within two (2) years completion of clinical training.

- For trainees commencing Subspecialty training after 1 December 2016 a maximum of three (3) consecutive attempts allowed for each examination
- For trainees who commenced training prior to 1 December 2020 they must pass the written examinations within Six years of completing clinical training
- For trainees who commenced training after 1 December 2020 they must pass the written examinations within four (4) years of completing clinical training

Format

Written Examination

The three (3) hours and 15-minute examination may comprise of ten (10) Short Answer Questions (SAQs).

Oral Examination

The oral examination takes approximately three (3) hours duration, plus a short break (this may vary from year to year depending on the number of candidates enrolled) and comprises 9 clinical stations, each of fifteen minutes interaction and five (5) minutes reading time for each station. The examination will be held on a date determined by the COGU Subspecialty Committee within six (6) months of the written examination. This is subject to change, please refer to the website for further details.

Candidates rotate through each examination station and, before each station begins, will be given the introductory details of a clinical case or cases, and/or ultrasound images to view that will be developed during the encounter.

Stations may consist of one (1) or more examiners and an observer. At some stations there may be a standardised patient. Every attempt will be made to ensure that the trainee will not be directly examined by an examiner from the trainee's hospital.

Candidates should ask explicitly for additional relevant historical and physical details, for the results of investigations, for consultations if needed, and for responses to treatment.

Examiners may explore candidates' ability to deal with expected or unexpected complications or confounding events, and with simulated late-stage referrals.

Histological sections, videos, laboratory work sheets and microscopic photographs can be shown. Where a station consists of a critique of a journal article, candidates will be given time to read the article for 20 minutes immediately prior to the examination, with five (5) minutes to review the article before that station.

Notes may be made during the encounters (and while reading the published paper) but are to be left in the examination room.

Areas Covered by the Examinations

Both the oral and written examinations will have material drawn from, but not limited to, the following areas:

1. Prenatal diagnosis and congenital malformations
2. Obstetric diagnostic and therapeutic interventions
3. Normal and abnormal fetal and placental development, growth and well-being
4. Multiple pregnancy
5. Gynaecological benign and malignant conditions
6. Gynaecological diagnostic and therapeutic interventions
7. Critical appraisal and practice improvement

Release of Examination Results

The results of examinations are made available via secure login on the RANZCOG online assessment portal on a date specified by the College. Detailed information regarding accessing examination results is emailed to trainees prior to the release date.

Certification as a COGU Subspecialist

Eligibility

Subspecialty Certification is awarded to persons who have met all the following COGU Training Program requirements:

- Joined the COGU Subspecialty Training Program in Australia after obtaining an approved Australian Subspecialty training position
- Have satisfactorily completed:
 - 138 weeks FTE of prospectively approved and credited clinical training
 - Scholarly Elective: Research Stream or Non-Research Stream
 - Written and Oral Examination
- Have submitted all documents required by the Regulations and/or the COGU Subspecialty Committee
- Have paid all required fees including: training, examination, subscription and certification
- Trainees who commenced prior to 1 December 2020 must complete all of the above within six (6) years of satisfactorily completing approved COGU clinical training
- Trainees who commenced after 1 December 2020, must complete all of the above within four (4) years of satisfactorily completing approved COGU clinical training.
- Have been admitted by the Board as a Fellow of the RANZCOG
- Satisfactorily completed the requirements of the COGU Subspecialty Training Program, including completion of all associated administrative requirements

Application Process

Trainees must submit an online Certification Application and Payment form available from the RANZCOG website via the following link:

[Subspecialty Certification Application Form](#)

A trainee must not identify themselves as a Specialist in Obstetrical and Gynaecological Ultrasound until all training requirements are satisfactorily completed, including the Written and Oral examinations as well as the prospectively approved research project and you have been certified by the RANZCOG Board.

Curriculum

Aims

Subspecialist Practice

Obstetrical and gynaecological ultrasound is a Subspecialty of obstetrics and gynaecology.

Obstetrical and gynaecological ultrasound subspecialists are specialists in obstetrics and gynaecology, awarded the FRANZCOG, who are trained and assessed as being competent in all aspects of ultrasound diagnosis relating to obstetrics and gynaecology, including ultrasound guided interventional diagnostic and therapeutic techniques. An obstetrical and gynaecological ultrasound Subspecialist must spend at least 66% of his/her clinical time working in obstetrical and gynaecological diagnostic ultrasound practice.

It is desirable but not mandatory that the trainee works part of this time in a “tertiary care” institution where the ultrasound department provides a comprehensive diagnostic service to general obstetrics and gynaecology and to the subspecialties.

The Certificate of Obstetrical and Gynaecological Ultrasound (COGU Subspecialty) is a qualification only for individuals who hold the qualification of Fellow of The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (FRANZCOG).

Context

High quality obstetrical and gynaecological ultrasound services form an essential component in the provision of quality Obstetrical and Gynaecological care by complementing the clinical work of specialists and subspecialists.

Obstetrical and gynaecological ultrasound practice at Subspecialist level requires high-level scanning and procedural skills, an excellent knowledge base in obstetrical, gynaecological and fetal pathophysiology, and sound counselling skills.

The rapidly advancing technical aspects of ultrasound scanning and the changing medico-legal climate in Australia make excellent training and ongoing education essential.

A Subspecialist in obstetrical and gynaecological ultrasound would also be expected to promote clinical and basic research in this field and provide education and clinical support to Obstetrician Gynaecologists and other imaging specialists.

Aims of the Subspecialties

The College introduced certification in the five (5) subspecialties in order to:

- Improve knowledge, practice, teaching and research
- Promote the concentration of specialised expertise, special facilities and clinical material that will be of considerable benefit to some patients
- Improve the recruitment of talented graduates into areas of recognised subspecialisation
- Establish a close understanding and working relationship with other disciplines
- Encourage co-ordinated management of relevant clinical services throughout a region
- Accept a major regional responsibility for higher training, research and audit in areas of recognised subspecialisation
- Establish, as far as possible, consistency in recruitment, training and assessment across areas of recognised subspecialisation

Aims of the Subspecialty in Obstetrical and Gynaecological Ultrasound

The College introduced certification in the Subspecialty of obstetrical and gynaecological ultrasound in order to:

- Improve knowledge, practice, teaching and research in the area of obstetric and gynaecologic ultrasound and pre-natal diagnosis, for specialists, subspecialists and others
- Ensure that women have access to Subspecialist opinion in relation to fetal or gynaecologic abnormalities
- Ensure that women receive the highest possible standard of care
- Establish and maintain a close understanding and working relationship with related disciplines

Objectives of the COGU Subspecialty Training Program

It is expected that the Subspecialist in obstetrical and gynaecological ultrasound will be able to demonstrate:

- Knowledge of the basic sciences relevant to obstetrical and gynaecological ultrasound, in particular physics
- Knowledge of the pathophysiology, methods of evaluation and treatment of the maternal disorders and pregnancy complications contributing to high fetal risk and gynaecological disorders
- Both academic knowledge and practical competence in the fields of gynaecological imaging, prenatal screening and fetal diagnosis, including the relevant invasive procedures and fetal therapies
- State of the art skills and competence in the management of all acute and chronic problems within the discipline of obstetrical and gynaecological ultrasound. (see major subgroups of patients below)
- An understanding of the concepts of investigative science, critical appraisal of published literature and the development of skills in research methods
- An understanding of the organisation of health services in the areas of obstetrical and gynaecological ultrasound
- Understanding of the methods of quality assurance and audit

Major Subgroups of Patients

The practice of an obstetrical and gynaecological ultrasound Subspecialist involves the following major subgroups of patients:

- General population screening
- Patients requiring prenatal diagnosis
- Patients requiring gynaecological diagnosis
- Patients with maternal disease, including, but not limited to, the following examples:
 - Class 3 or 4 cardiac disease
 - SLE requiring corticosteroids
 - Diabetes mellitus, class b or greater
 - Chorionic hypertension (multiple medications at beginning of pregnancy)

- Thrombo-embolic disease
- Anti-phospholipid antibody syndrome
- Seizure disorder
- Thrombotic thrombocytopenia
- Hyperthyroidism
- Pheochromocytoma
- Chronic renal disease
- Haemolytic uraemic syndrome
- Kidney transplant
- Patients receiving anticoagulation during pregnancy
- Pulmonary hypertension
- Haemoglobinopathy such as sickle cell disease
- Maternal malignant disease
- Acute fatty liver of pregnancy
- Steroid dependent asthma
- Patients with maternal disease, including, but not limited to, the following examples:
 - Portal hypertension
 - Immune thrombocytopenia
 - Heart transplant
 - Liver transplant
 - Viral infection, ie; varicella, toxoplasmosis, parvovirus, cytomegalovirus
 - Substance abuse (complicated)
 - HIV
- Health of pregnant women with foetuses at high risk of adverse outcomes, including, but not limited to, the following examples:
 - Preterm labour
 - Prelabour rupture of membranes
 - Multiple pregnancies
 - IUGR
 - Incompetent cervix
 - Mullerian tract abnormalities
 - Multiple prior preterm deliveries
 - Oligohydramnios
 - Polyhydramnios
 - Foetus with major structural defect or cytogenic abnormality
 - Fetal hydrops
 - Twin-to-twin infusion
 - Fetal supraventricular tachycardia
 - Prior feto-maternal alloimmune thrombocytopenia

- Prior second trimester loss
- Previous intrauterine fetal demise
- Tertiary level opinion and counselling:
 - The obstetrical and gynaecological ultrasound Subspecialist should be able to provide a tertiary level opinion and counselling for any of the above conditions or any other condition in obstetrics and gynaecology as it pertains to the use of diagnostic imaging
 - Diagnostic procedures in obstetrics and gynaecology – ultrasound guided

1. Knowledge and Understanding

The Building Blocks Required for the Development of Expertise in Obstetric and Gynaecological Ultrasound

This section details area of knowledge and underlying principles that underpin the practice of obstetric and gynaecological ultrasound. Understanding of these principles will develop with regular clinical experience, for it is the interaction between knowledge and practice that provides the basis for growth in clinical expertise.

Each curriculum section contains both the scientific and medical knowledge that underpins clinical practice and research as well as the application of that knowledge via management and clinical skills.

Relevant knowledge may be accessed in a variety of ways, through textbooks, refereed articles in journals and book series, evidence-based electronic databases and publications, academic discourse, conference papers and many informal means of communication. Many of these are detailed in the online Climate resources accessed through the RANZCOG website.

It is through these publications and interactions that a consensus on standards is established for the discipline. They also enable obstetric and gynaecological ultrasound subspecialists to learn accepted terminologies, appropriate vocabulary, levels of understanding expected of them and key applications for their clinical work. As clinical professionals, they are expected to select, organise and test this knowledge through their own experience and in academic conversation with colleagues.

Newly certified subspecialists must possess a strong knowledge base to inform and amplify their experience, and as a foundation for growth towards expertise in the profession.

Underpinning Professional Skills and Attitudes

Each section of the curriculum is underpinned by the same set of professional skills and attitudes. These professional skills and attitudes are learnt throughout the obstetric and gynaecological ultrasound Subspecialty training program and should be demonstrated with increasing levels of sophistication in day-to-day practice and can be assessed as part of the IHCA, written and oral examinations and via the 3 monthly formative and 6 monthly summative assessments.

- The professional skills and attitudes that underpin obstetric and gynaecological ultrasound include the ability to:
 - Explain the basic sciences relevant to obstetric and gynaecological ultrasound in particular physics
 - Explain pathophysiology, methods of evaluation and treatment of the maternal disorders and pregnancy complications contributing to high fetal risk and screening
 - Demonstrate practical competence (and the underpinning knowledge) in prenatal screening and fetal diagnosis, including the relevant invasive procedures and fetal therapies

- Demonstrate high proficiency in gynaecological ultrasound and a comprehensive knowledge of early pregnancy scanning and its application to management
- Demonstrate a high level of skill in the management of all acute and chronic problems within the discipline of obstetric and gynaecological ultrasound
- Demonstrate an ability to engage in investigative science, undertake critical appraisal of published literature and develop skills in research methods
- Explain the organisation of health services in the areas of obstetric and gynaecological ultrasound
- Explain the methods of quality assurance and audit and clinical incident review with regard to patient safety

1.1 Anatomy

Learning Objectives

Describe the normal and abnormal anatomy and ultrasound appearance of the female pelvis and abdomen, including that of the pregnant woman.

Identify normal and abnormal appearance of pelvic region and abdomen of pregnant and non-pregnant women.

Actively engage in self-learning to enhance the individual and collective knowledge of anatomy in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

- Describe the normal and abnormal anatomy and ultrasound appearance in the pregnant and non-pregnant woman of:

1.1.1 Pelvis, including:

- Vagina
- Uterus
- Fallopian tubes
- Ovaries
- Pelvic floor
- Vasculature and innervation
- Pelvic wall

1.1.2 Abdomen, including:

- Liver
- Kidneys/urinary tract
- Gall bladder and biliary system
- Renal system
- Bowel
- Appendix

Clinical Competency

- Identify anatomy and ultrasound appearance of the pelvic region in the pregnant and non-pregnant woman

- Identify anatomy and ultrasound appearance of the kidneys, liver, stomach and gallbladder in the pregnant and non-pregnant woman

1.2 Embryology

Learning Objectives

- Describe the normal and abnormal development of the human embryo from gametogenesis to birth
- Describe changing fetal appearances with increasing gestation
- Describe the anatomy, ultrasound appearance and development of the placenta, cord and membranes in single and multiple pregnancies
- Identify normal and abnormal appearance of foetus and placenta
- Actively engage in self-learning to enhance the individual and collective knowledge of embryology in the contemporary practice of obstetric and gynaecological ultrasound

Knowledge Content

1.2.1 Foetus

- Describe:
 - Normal development of main organ systems
 - Normal and abnormal cross-sectional anatomy and ultrasound appearance of the foetus
 - Changing fetal appearances with increasing gestation

1.2.2 Placenta

- Describe:
 - Development of placenta, cord and membranes, including multiple pregnancy. Anatomy and ultrasound appearance of placenta, umbilical cord, and membranes, including chronicity in multiple pregnancies

Clinical Competency

- Identify normal and abnormal fetal anatomy across all stages of development
- Identify normal and abnormal appearance of placenta, cord and membranes including multiple pregnancies

1.3 Reproductive Physiology and Endocrinology

Learning Objectives

Describe normal and abnormal maternal, fetal and placental physiology and endocrinology, including changes occurring at birth.

Actively engage in self-learning to enhance the individual and collective knowledge of reproductive physiology and endocrinology in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

1.3.1 Female/Maternal

- Describe:
 - Hypothalamic pituitary ovarian axis
 - Endocrine factors affecting the menstrual cycle, including menarche and post-menopause
 - Changes that occur during pregnancy, labour and puerperium
 - Immune mechanisms in pregnancy
 - Haematological changes in pregnancy, for the pregnant woman and foetus

1.3.2 Fetal

- Describe:
 - Normal fetal growth patterns and the factors regulating fetal growth
 - Physiological processes of maturation of fetal organs
 - Fetal cardio-pulmonary physiology, including regulation of the fetal heart rate
 - Oxygen and carbon dioxide transport and the fetal response to hypoxia
 - Patterns of fetal activity, including fetal breathing and other movements
 - Mechanisms of regulation of the volume and composition of amniotic fluid
 - Factors involved in the initiation of parturition
 - Fetal cardio-respiratory and endocrine responses to birth

1.3.3 Placenta

- Describe:
 - Growth, development and function of the placenta
 - Regulation of placental blood flow
 - Mechanisms of action of placental hormones

Clinical Competency

- To demonstrate an understanding of normal and abnormal physiology at all reproductive stages of life, from adolescence to menopause, and correlate it with ultrasound findings
- To formulate an ultrasound report and clinical advice based on a sound knowledge of normal and abnormal physiology

- To demonstrate an understanding of normal and abnormal fetal growth and fetal and placental physiology in pregnancy when performing an appropriate ultrasound, together with provision of an appropriate report and clinical advice

1.4 Pathophysiology

Learning Objectives

Describe the aetiology, pathogenesis, pathology, epidemiology, clinical presentation, investigation, management, prognosis and prevention of maternal, fetal and placental disorders.

Explain the value and limitations of investigations used to determine the cause of fetal/neonatal death.

Identify and manage a range of pregnancy induced conditions impacting on a woman.

Identify and manage a range of conditions impacting on fetal development and placental function.

Actively engage in self-learning to enhance the individual and collective knowledge of pathophysiology in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

1.4.1 Maternal Pathophysiology

- Describe the aetiology, pathogenesis, pathology, epidemiology, clinical presentation, investigation, management and fetal effects of the following:
 - Recurrent miscarriage
 - Pregnancy induced hypertension, diabetes, preterm labour, intrauterine infection, thromboembolism, haemorrhage and shock, autoimmune disease, renal disease, cardiac disease, amniotic fluid embolism, anaesthesia, bowel disease
 - Common malignancies

1.4.2 Fetal Pathophysiology

- Describe the aetiology, pathogenesis, pathology, epidemiology, clinical presentation, investigation, management and prevention of the following:
 - Intrauterine growth restriction
 - Hypoxia and acidosis
 - Hydrops: immune and non-immune
 - Complications in dichorionic and monochorionic multiple pregnancy
 - Congenital infection, including Toxoplasmosis, CMV, Parvovirus, Varicella, Rubella, HIV, Hepatitis B and C, Congenital Herpes, Syphilis, Listeria, Zika Virus

1.4.3 Placental Pathophysiology

- Describe the aetiology of the following:
 - Intrauterine growth restriction
 - Monochromic multiple pregnancy
 - Placental masses

1.4.4 Post Mortem Pathophysiology

- Describe the value and limitations of post-mortem examination of the foetus/neonate

1.4.5 Pathophysiology of Gynaecological Conditions

- Describe the aetiology, pathology, epidemiology, clinical presentation, investigation and management of gynaecological conditions including but not limited to:
 - Gynaecological malignancy
 - Disorders of the menstrual cycle
 - Developmental abnormalities
 - Myometrial pathology including fibroids and adenomyosis
 - Benign and borderline ovarian lesions
 - Endometriosis
 - Polycystic ovarian syndrome
 - Endometrial pathology
 - Tubal lesions

Clinical Competency

- Demonstrate a good clinical understanding of recurrent miscarriage and perform and appropriately interpret ultrasound assessment in recurrent miscarriage
- Demonstrate a good clinical understanding of conditions impacting on fetal and / or placental development and perform and appropriately interpret ultrasound assessment in these conditions
- Demonstrate a good clinical understanding and appropriately interpret ultrasound assessment in woman with benign and malignant gynaecological conditions

1.5 Genetics

Learning Objectives

Describe basic human genetics, common genetic and chromosomal disorders, current techniques in prenatal diagnosis and principles of teratogenesis.

Actively engage in self-learning to enhance the individual and collective knowledge of genetics in the contemporary practice of obstetrical and gynaecological ultrasound.

Knowledge Content

1.5.1 Genetic Concepts and Clinical Implications

- Understand and explain:
 - Principles of inheritance, pedigree and linkage analysis
 - Genetic basis of clinical syndromes
 - Chromosomal anomalies
 - Single gene
 - Epigenetic sex linked mitochondrial
 - Principles of:

- Preimplantation genetic screening and diagnosis
- Antenatal screening and diagnosis

1.5.2 Common Genetic Disorders

- Describe the more common genetic disorders, as pertains to prenatal diagnosis, including but not exclusive to:
 - Cystic fibrosis
 - Alpha and beta thalassaemia
 - Spinal muscular atrophy
 - Huntingtons chorea
 - Achondroplasia
 - Congenital adrenal hyperplasia
 - Glycogen storage disorders
 - Meckel gruber
 - Fragile x
 - Polycystic kidney disease (particularly ARPKD)
 - Tay sachs
 - Haemophilia

1.5.3 Chromosomal Disorders

- Describe:
 - Common aneuploidies, e.g. T21, T13, T18, 45X, 47XXX, 47XXY, 47YY
 - Structural chromosome disorders, e.g. Robertsonian translocation, insertion, deletion
 - Mosaicism
 - UPD and genomic imprinting

1.5.4 Fetal and Paediatric Syndromes

- Describe the genetics and other clinical features of the more common Fetal (and paediatric) syndromes, including but not exclusive to:
 - di George (22q11 microdeletion)
 - Beckwith Weidemann syndrome
 - Wolf hirschorn (4p-)
 - Osteogenesis impertecta
 - Achondrogenesis
 - Pierre Robin
 - Holt Oram
 - Fraser syndrome
 - Multiple pterygia
 - Fryns syndrome
 - Thanatophoric dysplasia
 - Tuberose sclerosis
 - X linked hydrocephalus

- Noonan syndrome

1.5.5 Laboratory Genetics

- Understand and explain the principles underpinning:
 - DNA testing in clinical practice
 - Ethical and societal issues
 - Diagnostic, predictive and carrier testing
- Uses and limitations of laboratory tests indications, methods and limitations, including failure and error rates of:
 - Karyotyping, fish and DNA analysis
 - Comparative genomic hybridization, DNA micro array
 - Polymerase chain reaction (PCR)
 - Southern and northern blotting
 - Gene tracking using restriction fragment length polymorphisms
 - Recombinant technology
 - Emerging technologies, e.g. Nanotechnology
 - Deep genome sequencing
 - Enzyme and biochemical analysis

1.5.6 Biochemical Screening

- Describe the significance of common analytes at different stages of pregnancy, e.g.:
 - PAPP-A
 - BhCG
 - Total HCG
 - AFP
 - E3
 - Inhibin

1.5.7 Teratology

- Describe:
 - Background rates of fetal malformation
 - Mechanisms of teratogenesis
 - Effects of possible teratogens, e.g. drugs (prescribed and illicit), infections (such as rubella, toxoplasmosis, CMV), radiation, environmental agents (including alcohol), vaccinations

1.5.8 Advancements in Gene Technology

- Demonstrate basic knowledge of recent advances in gene technology and their potential, e.g. gene manipulation

Clinical Competency

- To be able to carry out appropriate counselling and management in families with a previous genetic disorder
- Manage a woman with a personal or family history of genetic disease, including but not limited to: cystic fibrosis, myotonic dystrophy, muscular dystrophy, fragile X, haemoglobinopathy, haemophilia, inborn error of metabolism or syndromic anomaly
- Ability to use genetic testing appropriately
- Ability to liaise with clinical geneticist and associated laboratory disciplines, including cyto- and molecular genetics, and refer where appropriate
- Ability to formulate management plan for this and future pregnancies
- Counsel about management options, including termination of pregnancy

1.6 Principles of Screening

Learning Objectives

Describe the principles of screening and implications for patients.

Actively engage in self-learning to enhance the individual and collective knowledge of the principles of screening in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

1.6.1 Test Performance

- Explain the principles underpinning the performance of specific screening tests related to pregnancy for example:
 - Carrier screening
 - Combined first trimester screen
 - Double/triple/quadruple test
 - Sequential screening
 - Integrated screening
 - Contingent screening
 - Morphology scan
 - Nuchal translucency
 - CF screening
 - cfDNA screening
 - Cervical screening
- Explain the principles underpinning the performance of screening for gynaecological malignancy

1.6.2 Harms and Benefits

- Explain the principles underpinning false positives and negatives
- Explain psychological implications for patients of the harms and benefits of screening, including ultrasound

1.6.3 Economics

- Explain principles of:
 - Cost versus benefits with screening
 - Patient preferences
 - Factors affecting patient choices
 - Factors affecting screening test suitability in various clinical circumstances

1.6.4 Common Screening Tests Used in Obstetric and Gynaecological Ultrasound

- Explain the common screening tests used in Obstetric and Gynaecological ultrasound including:
 - Historical
 - Textbook
 - Latest research
 - Clinical application

Clinical Competency

- Counsel patients with regard to benefits, limitations and patient safety concerns with ultrasound
- Select appropriate screening tests for clinical scenarios based on an understanding of the benefits and limitations of:
 - Counsel patients about the benefits of the pregnancy and pre pregnancy clinical screening tests available and implications of the results
 - Interpret the results of screening tests and their clinical relevance
 - Counsel patients about the risks versus benefits and clinical value of ultrasound as a screening test for gynaecological malignancy
 - Demonstrate a clinical understanding of other screening available for gynaecological malignancy

1.7 Physics

Learning Objectives

Describe the physics of ultrasound and relevant instrumentation.

Actively engage in self-learning to enhance the individual and collective knowledge of physics of ultrasound in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

1.7.1 Pulse Echo Imaging and Signal Processing

- Explain the principles of:
 - Imaging, for example-
 - Reflection and transmission of sound waves
 - B-mode and m-mode scanning
 - Axial and lateral resolution
 - Greyscale
 - Dynamic range
 - Frame rates
 - Persistence
 - Harmonics
- Instrumentation
- Overall gain, time gain compensation, digital processing, pre- and post-processing, compound imaging, display systems
- Real time systems
- 2-D, linear, matrix and phased arrays, 3-D, 4-D

1.7.2 Transducers

- Describe the principles of:
 - Design and construction of transducers
 - Piezoelectric effect
 - Pulse operation
 - Pulse shape and length
 - Frequency spectrum
 - Beam pattern
 - Transducer planes
 - Near and far field
 - Beam width
 - Focusing

1.7.3 Scanning Techniques

- Describe the principles of transabdominal, transvaginal, and transrectal scanning techniques
- Explain the significance and use of protective barriers for endo-scanning
- Explain the principles of disinfection and sterilisation

1.7.4 Measurement

- Describe:
 - Linear, area and volume measurements
 - Limitations, equipment and performance testing
 - Interobserver and intra-observer error
 - The use of tissue phantoms

1.7.5 Image Recording and Storing

- Explain the modalities for archiving

1.7.6 Doppler Imaging

- Explain the principles of Doppler effect, including the derivation of basic Doppler formula:
 - Pulsed Doppler instrumentation
 - Continuous wave Doppler
 - Basic principles
 - Range ambiguity
 - Spectral analysis
 - Display and recording of Doppler signals
 - Colour flow mapping of Doppler signals
 - Power Doppler
 - Explain the limitations of velocity measurement

1.7.7 Artefacts

- Explain the principles of:
 - Axial resolution
 - Lateral resolution
 - Reverberation
 - Refraction
 - Attenuation, shadowing, enhancement
 - Beam width
 - Multipath
 - Non uniform velocity
 - Side lobes
 - Electronic noise
 - Instrumentation
 - Scanning techniques
 - Equipment settings

Clinical Competency

- Demonstrate an ability to understand the working and safety of the ultrasound machine
- Demonstrate an ability to optimise images for various clinical settings

1.8 Obstetric Ultrasound

Learning Objectives

Describe the principles underpinning ultrasound assessment of fetal growth and wellbeing in single and multiple pregnancy.

Describe the principles underpinning ultrasound assessment of abnormalities in the foetus, placenta, and amniotic fluid in single and multiple pregnancy.

Undertake routine ultrasound assessment on foetus, placenta and amniotic fluid in single and multiple pregnancy.

Identify fetal, placental and amniotic fluid abnormalities on ultrasound in single and multiple pregnancy.

Actively engage in self-learning to enhance the individual and collective knowledge of obstetric ultrasound in the contemporary practice of obstetrical and gynaecological ultrasound.

Knowledge Content

1.8.1 Screening

- Explain the screening techniques associated with assessing in singleton and multiple pregnancy

1.8.2 Aneuploidy

- cfDNA
- In the 1st trimester, including nuchal translucency and other ultrasound markers, biochemistry and different combinations used, limitations, application in multiple pregnancy
- In the 2nd trimester, including markers used and their limitations, biochemical screening and different combinations
- Using combination screening, including understanding different approaches – sequential, integrated and contingency

1.8.3 Fetal Abnormalities

- In the 1st trimester, including understanding possibilities and limitations, e.g. Anencephaly
- In the 2nd trimester, including systematic approach, benefits and limitations
- In third trimester, including understanding possibilities and limitations

1.8.4 Placental Location

- C-section scar monitoring

1.8.5 The Cervix

- Measurement approach
- Current literature
- Current and potential roles in management of preterm birth

1.8.6 Fetal Growth and Wellbeing Assessment

1.8.6.1 Assessment of Gestation

- Explain the principles of techniques used in 1st, 2nd, and 3rd trimester measurements

- Explain the accuracy of assessment at different gestational ages
- Explain:
 - Anatomical landmarks
 - Interpretation (including variability)
 - Calculation and value of:
 - Ratios
 - Estimated fetal weight

1.8.6.2 Assessment of Size

- Describe the use and limitations of measurement charts
- Describe the derivation of estimated fetal weight

1.8.7 Doppler

- Describe:
 - Benefits and limitations of umbilical artery, middle cerebral artery, ductus venosus, uterine artery Doppler
 - Fetal Doppler in IUGR fetuses and their clinical role
 - Fetal Doppler in fetal anaemia

1.8.8 Liquor Volume and Biophysical Profile

- Describe the methods used in the measurement of liquor volume and biophysical profile
- Describe the role of liquor volume and biophysical profile in the assessment of fetal wellbeing

1.8.9 Fetal Abnormalities

- Describe the incidence, aetiology, pathology, associated anomalies, diagnosis, prognosis, counselling and management of:
 - Normal anatomy and variation with gestation
 - Abnormalities of fetal structure
 - Fetal hydrops
 - Fetal masses
 - Amniotic band syndrome
 - Genetic syndromes
 - Aneuploidy

1.8.10 Placenta, Umbilical Cord

- Describe screening techniques associated with assessing location, including:
 - Normal placentation
 - Placenta and vasa praevia
 - Accreta/percreta spectrum
 - Role of ultrasound and MRI
- Appearance, including:
 - Molar
 - Tumours
 - Haemorrhage
 - Cord cysts and masses

1.8.11 Amniotic Fluid

- Explain the different techniques used in the measurement of amniotic fluid and their limitations
- Explain the aetiology and the principles of diagnosis of polyhydramnios and oligohydramnios
- Explain amniotic fluid volume including:
 - Physiology
 - Change with gestation
 - Pathology

1.8.12 Multiple Pregnancy

- Explain screening techniques associated with assessing chorionicity including:
 - Development and appearances of amnion and chorion with gestational age
- Explain the relationship between zygosity and chorionicity
- Explain screening techniques associated with assessing monochorionic complications including:
 - TTTS/ TAPS
 - Acardiac twin
 - Demise of a twin
 - Discordant abnormality
 - Discordant growth
 - Conjoined twins
- Explain screening techniques associated with assessing dichorionic complications including:
 - Discordant abnormality
 - Discordant growth
 - Demise of twin

1.8.13 Concurrent Gynaecological Pathology

- Describe the principles of diagnosis and management of gynaecological pathology during pregnancy

1.8.14 Intracranial Pathophysiology in the Neonate

- Describe the pathophysiology of underlying ischaemia and haemorrhage in:
 - Normal brain anatomy
 - Appearances of ischaemic change
 - Appearances and stages of intracranial haemorrhage

Clinical Competency

- Perform and interpret the following scans:
 - Nuchal translucency scans/ 12 week morphology scan
 - Routine morphology
 - Major fetal abnormality
 - Growth and wellbeing assessment
- Confirm normal anatomy of:
 - Head, brain, face, heart, thorax, abdomen, genitourinary system, skeleton, spine, extremities
- Perform and interpret standard fetal measurements
- Provide accurate documentation of measurements
- Diagnose, manage and counsel a woman with fetal abnormalities, including appropriate ultrasound examination of first, second and third trimester fetal anatomy
- Counsel regarding termination of pregnancy
- Demonstrate appropriate knowledge about ethics related to late termination of pregnancy (refer to ethics section for details)
- Diagnose, manage and counsel post termination for next pregnancy planning
- Diagnose, manage and counsel post termination complications including retained products and arteriovenous malformation
- Diagnose and manage fetal conditions, including, IUGR, non-immune hydrops, anaemia, thrombocytopenia and cardiac arrhythmias
- Perform and interpret third trimester scans
- Assess liquor volume, measure amniotic fluid index
- Measure maximum vertical pool depth
- Undertake Doppler of umbilical artery, middle cerebral artery, ductus venosus, uterine artery where appropriate
- Assess the foetus for anaemia
- Perform and interpret ultrasound assessment of placental site – trans-abdominally and trans-vaginally
- Classify and manage placenta praevia
- Diagnose, manage and counsel a woman with placental and amniotic fluid abnormalities
- Demonstrate awareness of the limitations of this technique and know when to refer

- Diagnose, counsel and assist in the management of complications of monochorionic and dichorionic multiple pregnancies
- Perform and interpret scans of monochorionic pregnancies
- Diagnose, manage and counsel the woman exposed to a risk of congenital infection
- Provide parents with information about screening for chromosomal abnormalities late in pregnancy
- Produce written summary and interpretation of results
- Communicate normal and abnormal results to parents.
- Work as part of a multidisciplinary team to diagnose and manage the foetus with abnormalities
- Recognise limits of own ability and when to refer for further opinion
- Arrange appropriate referral, follow up or intervention
- Works as part of a multi-disciplinary team.
- Diagnose and manage a pregnant woman with concurrent gynaecological pathology
- Diagnose and counsel the pregnant woman with ovarian tumours
- Perform and interpret scans of the neonatal head
- Recognise and counsel a woman with an abnormal postnatal uterus

1.9 Early Pregnancy

Learning Objectives

- Demonstrate a comprehensive knowledge of normal and abnormal early pregnancy and the principles of:
 - Implantation
 - Embryological development
 - Early pregnancy maintenance
 - Early pregnancy failure
 - Ectopic pregnancy
 - Knowledge and interpretation of pregnancy hormones including serum B HCG and progesterone in context of early pregnancy and ectopic pregnancy management
 - Knowledge of medical and surgical treatment modalities for early pregnancy failure and ectopic pregnancy
- Actively engage in self-learning to enhance the individual and collective knowledge of early pregnancy ultrasound in the contemporary practice of obstetrical and gynaecological ultrasound

Knowledge Content

- Demonstrate knowledge and understanding of:
 - Epidemiology, aetiology, pathogenesis and clinical features of miscarriage, trophoblastic disease and ectopic pregnancy
- Ultrasound features of early pregnancy and ectopic pregnancy
- Describe the principles underpinning:
 - Pregnancy failure
 - Complete, incomplete and missed miscarriage
 - Trophoblastic disease
- Describe the principles underpinning the clinical management and biochemical investigation of pregnancy of unknown location, e.g., correlation of quantitative beta HCG
- Distinguishing features of early intrauterine pregnancy, miscarriage and ectopic pregnancy
- Criteria for diagnosing early pregnancy loss and uncertain viability
- Describe locations, diagnosis and treatment options of an ectopic pregnancy
- Understand medical and surgical management of miscarriage and ectopic pregnancy

Clinical Competency

- Perform and interpret early pregnancy scan
- Explain the principles of differences between normal and abnormal pregnancy development
- Diagnose, counsel and manage miscarriage and pregnancy of unknown location, including familiarity with running of early pregnancy clinic 'EPAS'
- Describe the normal intrauterine temporal changes during the 1st trimester
- Explain morphological features of normal early pregnancy 8-12 weeks
- Identify the features of a normal gestational sac and confirm its intrauterine location
- Measure gestational sac size and crown-rump length
- Explain physiology of cardiac activity in first trimester
- Identify early cardiac activity using B-mode
- Identify early cardiac activity and measure heart rate using M-mode
- Explain the principles of gestational sac diameter and crown-rump length measurements
- Explain the factors that contribute to fetal demise
- Diagnose early embryonic demise based on assessment of gestational sac size and / or crown-rump length
- Identify extra-uterine pregnancy
- Identify, assess and measure retained products of conception in women with incomplete miscarriages
- Identify tubal and non-tubal ectopic pregnancy
- Provide parents with information about risk of pregnancy loss

- Counsel parents following pregnancy loss
- Diagnose, counsel and manage ectopic pregnancy
- Explain the diagnostic problems which may occur e.g. uterine position those with large uterine fibroids / adenomyosis

1.10 Gynaecological Ultrasound

Learning Objectives

Understand and be competent in ultrasound assessment of the normal pelvis in women of different ages, stages of the cycle and with effect of exogenous hormones, and pregnancy benign and malignant conditions in both pregnant and non-pregnant women.

Investigate, diagnose, manage or understand management options of gynaecological conditions.

Describe the role of ultrasound in gynaecological oncology, Urogynaecology, acute and chronic pelvic pain, menorrhagia, dysmenorrhoea, recurrent miscarriage and reproductive endocrinology & infertility.

Actively engage in self-learning to enhance the individual and collective knowledge ultrasound and gynaecology in the contemporary practice of obstetrical and gynaecological ultrasound.

Knowledge Content

1.10.1 Non-Pregnant Anatomy and Normal Ultrasound Size and Appearance

- Describe the anatomy and normal ultrasound size and appearance of the pelvic organs, including:
 - Correlation with normal and abnormal menstrual cycle
 - Changes in pre-puberty, reproductive, menopause
 - Changes with exogenous hormones

1.10.2 Benign Conditions and Ultrasound Appearances

- Describe the following benign conditions, including ultrasound appearance:
 - Congenital anomalies
 - Uterine myometrial pathology including fibroids, adenomyosis
 - Endometrial pathology
 - Cervical cysts, polyps, stenosis
 - Vaginal cysts/masses
 - Ovarian pathology
 - Endometriosis
 - PID
 - Foreign body localization, including IUCD
 - Pelvic cysts, hydrosalpinges, masses and collections
 - Adhesions
 - Abdominal scar findings

1.10.3 Malignant Conditions and Ultrasound Appearances

- Describe the following malignant conditions, including ultrasound appearance:
 - Uterine pathology involving cervix, myometrium and endometrium

- Ovarian pathology, including scoring systems
- Fallopian tubes
- Primary and secondary pelvic malignancies

1.10.4 Role of Doppler

- Describe the use and limitations of Doppler ultrasound in gynaecological scanning

1.10.5 Role of Ultrasound in Reproductive Endocrinology and Infertility

- Describe:
 - Liaison with professionals
 - The role of ultrasound in fertility assessment. Detailed knowledge of scan including 3d assessment and associated ultrasound procedures required
 - Monitoring and management of art
 - Diagnosis and management of complications of art
 - Awareness of emerging practices

1.10.6 Role of Ultrasound in Gynaecological Oncology

- Describe:
 - Liaison with professionals
 - Awareness of alternative imaging options
 - Awareness of emerging practices
 - Guide on appropriate referral

1.10.7 Role of Ultrasound in Urogynaecology

- Describe:
 - Liaison with professionals
 - Awareness of emerging practices
 - 3D pelvic floor studies

1.10.8 Abdominal Anatomy

- Describe the principles of underpinning ultrasound assessment of normal and abnormal abdominal anatomy including:

1.10.8.1 Normal Anatomy

- Liver
- Kidneys
- Gall bladder
- Bowel

1.10.8.2 Abnormal Anatomy

- Hydronephrosis
- Bowel masses

- Gallstones
- Ascites
- Fluid collections
- Liver metastases

Clinical Competency

- Explain the conduct ultrasound examination in woman with acute and chronic pelvic pain
- Explain and diagnose conditions causing abnormal bleeding in (non-pregnant reproductive and menopausal women
- Diagnose and explain and understand management of benign conditions of female genital tract
- Diagnose and understand management of malignant conditions of female genital tract
- Perform and interpret images of women with various grades of endometriosis
- Identify IUCD and its location within the uterus
- Perform IVF monitoring including pelvic assessment prior to IVF, and follicle tracking. Perform imaging-based procedures used in IVF
- Diagnose and evaluate ovarian hyperstimulation (OHSS)
- Diagnose and counsel a woman with polycystic ovarian disease
- Assess cyclical endometrial changes and endometrial responses to the combined pill and other hormonal preparations
- Perform appropriate ultrasound screening of women on Tamoxifen
- Locate, diagnose and treat ectopic pregnancies
- Perform the following procedures:
 - Hycosy, tests of tubal patency
 - Ultrasound guidance of curettage/hysteroscopy
 - Saline infusion sonography
- Experience the following specialised procedures during training:
 - Ultrasound guided injection of ectopic pregnancies
 - Gynaecological needling of cysts
 - TV and TA OPU

1.11 Other Imaging Modalities

Learning Objectives

Describe the principles underpinning other imaging modalities.

Use other imaging modalities as required.

Actively engage in self-learning to enhance the individual and collective knowledge of other imaging modalities in the contemporary practice of Obstetric and Gynaecological Ultrasound.

Knowledge Content

- Describe the indications, contraindications and limitations of fetal MRI
- Describe the application of:
 - CT for pelvic masses
 - HSG
 - Obstetric and post-mortem MRI
 - Uterine MRI
 - X-ray
 - Vascular ultrasound

Clinical Competency

- Use other imaging modalities as required
- Provide advice regarding the use of tubal assessment with ultrasound versus with HSG
- Demonstrate a clinical understanding of the role of Fetal and uterine / placental MRI in pregnancy
- Demonstrate a clinical understanding of the role of MRI in the assessment of pelvic cysts or masses
- Demonstrate a clinical understanding of the role of CT and X-ray in the investigation of gynaecological conditions and their limitations

1.12 Obstetric Diagnostic and Therapeutic Interventions

Learning Objectives

Describe the principles underpinning obstetric diagnostic and therapeutic interventions.

Describe the principles underpinning gynaecological diagnostic and therapeutic interventions.

Perform a range of diagnostic and therapeutic interventions as required.

Actively engage in self-learning to enhance the individual and collective knowledge of gynaecological diagnostic and therapeutic interventions in the contemporary practice of obstetric and gynaecological ultrasound.

1.12.1 Obstetric

1.12.1.1 Diagnostic

- Explain the indications, contraindications, techniques, complications, advantages and disadvantages of:
 - CVS

- Amniocentesis
- FBS
- Fetal biopsy
- Amnio-infusion
- Fetal aspiration

1.12.1.2 Fetal Therapeutic Interventions - Surgical

- Describe the role of fetal surgery in the clinical and experimental contexts
- Describe the indications, contraindications, techniques, complications, advantages and disadvantages, ethical and medico-legal considerations of:
 - Intrauterine transfusion
 - Cordocentesis for other therapeutic intervention
 - Amnioreduction
 - Fetocide
 - Multifetal pregnancy reduction
 - Selective fetocide for abnormality in multiple pregnancy, including cord ligation and intracardiac injection
 - Fetoscopy
 - Intrauterine laser
 - Fetal shunting
 - Fetal surgery e.g. diaphragmatic hernia repair

1.12.1.3 Fetal Therapeutic Interventions - Medical

- Describe the indications, techniques, complications, advantages and disadvantages, ethical and medico-legal considerations of:
 - Steroids
 - Fetal arrhythmia therapy
 - Antibiotics for fetal disease

1.12.2 Gynaecological

1.12.2.1 Diagnostic

- Describe the indications, contraindications, techniques, complications, and limitations of:
 - Saline infusion sonohysterography
 - Tubal patency and ultrasound contrast studies
 - Aspiration of fluid collections
 - Biopsy of masses

1.12.2.2 Therapeutic

- Describe the indications, contraindications, techniques, complications, and limitations of:
 - Cyst aspiration
 - Fluid collections

- Ectopic pregnancies and methotrexate injection
- Egg collections and other ART procedures
- Intrascopic needling of cervical and scar ectopic pregnancies

Clinical Competency

1.12.3 Obstetrics

- Perform:
 - Chorionic Villous Sampling
 - Amniocentesis
 - Amnioreduction
- Have knowledge of performance of:
 - FBS
 - IUT
 - Laser
 - Fetal shunts
 - Fetocide including singleton fetocide,, selective fetocide and MFPR

1.12.4 Gynaecology

- Perform:
 - Tubal assessment
 - Saline infusion
- Have knowledge of performance of:
 - Cyst aspiration/ aspiration of fluid collections
 - Intrascopic needling of cervical, scar / other clinically appropriate ectopic pregnancies
 - Egg collection for ART

1.13 Research

Learning Objectives

Describe the principles and methods underpinning productive and ethical research and the analysis of clinical information, and the sharing of that knowledge in the medical community.

Actively engage in self-learning to enhance the individual and collective knowledge of clinical information and research in the contemporary practice of Obstetric and Gynaecological Ultrasound.

Knowledge Content

1.13.1 Descriptive Statistics

- Explain the significance and limitations of measures of central tendency:
 - Mean
 - Standard deviation
 - Median
 - Mode

1.13.2 Statistical Testing

- Describe how to:
 - Formulate testable hypotheses for a clinical investigation
 - Conduct power analyses
 - Choose and apply appropriate statistical tests (parametric and nonparametric) to clinical data in order to test hypotheses
 - Demonstrate application in research project

1.13.3 Diagnosis

- Describe how to:
 - Calculate the sensitivity and specificity of a clinical investigation and explain its clinical significance
 - Calculate predictive value of a positive result of an investigation and explain its clinical significance
 - Diagnostic test characteristics: PPV, NPV, sensitivity, specificity, accuracy, ROC curves
 - Principles of meta-analysis: heterogeneity, forest plots, etc
 - Interpret and discuss the accuracy of screening tests

1.13.4 Health Outcomes

- Explain the principles underpinning:
 - Audit
 - Clinical trials

1.13.5 Clinical Trials

- Explain the principles of:
 - Cross-sectional analysis
 - Cohort
 - Case controls
 - RCTS

1.13.6 Critical Appraisal of the Literature

- Explain:
 - How to critically appraise literature relating to diagnostic imaging in obstetrics, gynaecology and perinatology
 - Statistical methods used in publication
 - Principles underpinning the development and use of data collection systems
 - The framework of a published paper

1.13.7 Publications

- Knowledge of the current RANZCOG and RCOG guidelines in obstetric and gynaecological ultrasound
- Knowledge of the relevant Cochrane reviews
- Knowledge of significant published studies and trials in obstetric and gynaecological ultrasound

Clinical Competency

1.13.8 Scholarly Elective - Research Skills

- Undertake productive and ethical research, and share knowledge in the medical community
- Produce a research project at a suitable level for publication demonstrating application of the skills required including:
 - Develop a hypothesis to be tested
 - Conduct a literature review
 - Choose an appropriate research methodology and design a research study
 - Apply for Ethics Committee approval
 - Use databases, spreadsheets and statistical packages to produce statistical analyses and research papers
 - Collect, collate and interpret data

2. Management and Professional Responsibilities

General Aim

Be able to apply sound management and administrative skills to their professional practice.

Learning Objectives

Describe the organisational responsibilities inherent in the practice of obstetric and gynaecological ultrasound.

Demonstrate an awareness of sound management and administrative skills required to run a professional service and work in a multidisciplinary group.

Actively engage in self-learning to enhance the individual and collective knowledge of professionalism and management in the contemporary practice of obstetric and gynaecological ultrasound.

Understand the importance and pathways for patient complaints and Incident reporting.

Knowledge Content

- Describe the role and responsibilities of indemnity providers
- Describe the importance of continuing professional development

- Explain the principles of:
 - Business management
 - Effective systems for follow-up of results and record storage
 - Risk management and practice audit
 - Optimizing service delivery
 - Protocol development
 - Incident reporting and root cause analysis

2.1 Management

- Apply basic principles of Human Resources Management, including the steps associated with recruiting staff and the principles of good staff supervision
- Advocate on behalf of junior staff
- Counsel staff and manage conflict resolution in the workplace
- Clinical competencies

2.2 Administration

- Participate in perinatal data collections systems
- Organize and co-ordinate clinical meetings

2.3 Clinical Service Delivery

- Take steps to minimise areas of potential complaint in the delivery of clinical services
- Develop appropriate relationships with staff and patients
- Fulfil the duty of care to all patients
- Ensure that staff communicate clearly, verbally and in writing, with the women in their care
- Discuss costs, where appropriate, before treatment
- Provide consistent information
- Use appropriate wording and construction of reports
- Apologise where you have inconvenienced women in your care or realised you have made a medical error
- Be able to convey bad news and sub-optimal outcomes compassionately, appropriately and in person
- Work effectively with multi-disciplinary teams
- Liaise appropriately with referring doctors
- Describe the principles and importance of risk management
- Explain to patients the realities of health resource allocation

2.4 Teaching

Learning Objectives

Describe the principles and methods underpinning the teaching and assessment of practical and theoretical concepts.

Actively engage in self-learning to enhance the individual and collective knowledge of teaching in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

Explain the principles and methods underpinning teaching, assessment and feedback of practical and theoretical concepts to:

- Midwives
- Sonographers
- Undergraduate students
- O&G trainees
- Subspecialty trainees, specialists and subspecialists

2.5 Ethics, Law and Culture

Learning Objectives

Discuss the ethical and legal aspects which underpin obstetric and gynaecological ultrasound practice.

Be aware of the effect of diverse views and culture on reproduction, gynaecology and ultrasound assessment.

Actively engage in self-learning to enhance the individual and collective knowledge of ethics, law and culture in the contemporary practice of obstetric and gynaecological ultrasound.

Knowledge Content

- Describe the current RANZCOG guidelines and position papers on termination of pregnancy, prenatal screening; including but not limited to cfDNA testing, genetic carrier testing and DTC extended panels.
- Discuss the ethical and legal aspects of obstetric and gynaecological ultrasound practice, including:
 - Pre-implantation diagnosis
 - Gene therapy
 - Screening for genetic/fetal abnormality
 - Screening of patients for genetic carrier status
 - Legal duties to patients, the foetus, non-patients and third parties
 - The range of ethical principles concerning the moral status of the foetus and maternal autonomy
 - Termination of pregnancy- in singleton and multiples
 - Fetal reduction
 - Research on the embryo, foetus and neonate
 - Duties to disclose error and apologise
- Explain the special implications for women's health services with respect to women of diverse cultural backgrounds, including indigenous women and those with various spiritual beliefs, sexual orientations, lifestyles, beliefs, ages, social and economic status

Clinical Competency

Respect the ways in which culture impacts on women's reaction to pregnancy, obstetric and gynaecological disorders and recommended treatments. Understand the legal duties of:

- Informed consent for screening and diagnosis in ultrasound, including by an adult, a minor (mature minor- Gillick competence) and issues of guardianship for women unable to consent.
- Failure to warn, offer treatment options, lost to follow-up and timely counselling following test results
- Management of patient's legal choices on acquiring test results
- Patient privacy, patient records and duty of confidentiality
- Registration of health professionals, disciplinary processes and mandatory reporting

Recommended Resources

Texts

Callen's Ultrasonography in Obstetrics and Gynaecology – 6th edition, 2016 lead editor Dr. Mary Norton
 Fetology Diagnosis and Management of the Fetal Patient, Second Edition

By: Diana W. Bianchi, Timothy M. Crombleholme, Mary E. D'Alton, Fergal Malone

The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide (Second Edition) 2020
 Robert Gill

The Developing Human. Clinically Oriented Embryology. 11th Edition - December 23, 2018

Keith Moore, T. V. N. Persaud, Mark Torchia

Oxford Desk Reference: Clinical Genetics and Genomics Helen V. Firth, Jane A. Hurst. 2017

Ultrasonography of the Prenatal Brain, Third Edition Hardcover 2012. Ilan Timor-Tritsch Ana Monteagudo, Gianluigi Pilu, Gustavo Malinger

A Practical Guide to Fetal Echocardiography 4ed. Normal and Abnormal Hearts. Alfred Abuhamad, Rabih Chaoui

Ultrasound of Congenital Fetal Anomalies: Differential Diagnosis and Prognostic Indicators, Second Edition Paladini, Paolo Volpe 2014

Diagnostic Ultrasound 5th Ed Carol M. Rumack, Deborah Levine 2017

Diagnostic Imaging: Obstetrics 4th Edition – 2021 Woodward

Fleischer's Sonography in Obstetrics and Gynaecology: Textbook and Teaching Cases, 8e

Fetal Medicine: Basic Science and Clinical Practice Pandya, Wapner, Oepkes, Sebire. 2019

Fetal Medicine Alfirevic, Kumar 2016

Creasy & Resnick's Maternal-Fetal Medicine: Principles and Practice, Philadelphia: Saunders, 2018

Chromosome Abnormalities and Genetic Counseling. Oxford Monographs on Medical Genetics By: R.J. McKinlay Gardner, David J. Amor 2018

Harper's Practical Genetic Counselling, Eighth Edition, Angus Clarke 2020

Harrison MR, Evans MI, Adzick NS, Holzgreve W (eds.). The Unborn Patient, Saunders, London, 2001

Keeling's Fetal and Neonatal Pathology, Springer- Khong, Malcomson 2022

Journals

Ultrasound in Obstetrics and Gynaecology, Wiley Interscience

Prenatal Diagnosis

Fetal Diagnosis and Therapy

Journal of Ultrasound in Medicine

Websites

Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)	www.ranzcog.edu.au
ISUOG	www.isuog.org
Fetal Medicine Foundation	https://fetalmedicine.org/
Australasian Society for Ultrasound in Medicine	https://www.asum.com.au
Compendium of Fetal MRI	www.radnet.bidmc.harvard.edu/fetalatlas/
Fetal Brain MRI Atlas and Segmentation	www.crl.med.harvard.edu/slicedrop/index.html?2503
Royal College of Obstetricians and Gynaecologists (RCOG)	www.rcog.org.uk
TheFetus.net	www.TheFetus.net
The American Institute for Ultrasound in Medicine (AIUM)	www.aium.org

Appendices

Acronyms

AAVIS	Australian Association of Vaginal and Incontinence Surgeons
AGES	Australian Gynaecological Endoscopy Society
AMC	Australian Medical Council
ANZJOG	Australian and New Zealand Journal of Obstetrics and Gynaecology
CFA	Continence Foundation of Australia
CGO	Certification in Gynaecological Oncology
COGU Subspecialty	Certification in Maternal Fetal Medicine
COGU Subspecialty	Certification in Obstetrical and Gynaecological Ultrasound
CPD	Continued Professional Development
CREI	Certification in Reproductive Endocrinology and Infertility
CU	Certification in Urogynaecology
DDU	Diploma of Diagnostic Ultrasound (available through Australasian Society of Ultrasound in Medicine)
EAC	Education and Assessment Committee of the RANZCOG
FIGO	International Federation of Obstetricians and Gynaecologists
FRANZCOG	Fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists
FRCOG	Fellow of the Royal College of Obstetricians and Gynaecologists (UK)
IHCA	In-Hospital Clinical Assessment
IMG	Specialist International Medical Graduate
MCQ	Multiple Choice Questions
MRCOG	Member of the Royal College of Obstetricians and Gynaecologists (UK)
NASOG	National Association of Specialists in Obstetrics and Gynaecology
NHMRC	National Health and Medicine Research Council
O and G (O&G)	Obstetrics and Gynaecology
RACGP	Royal Australian College of General Practitioners
RACS	Royal Australian College of Surgeons
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCOG	Royal College of Obstetricians and Gynaecologists (UK)
SIMG	Specialist International Medical Graduate
TAC	Training Accreditation Committee of the RANZCOG
TAR	Training and Assessment Record

Abbreviations Used/Accepted in COGU Subspecialty Examinations and Training Documentation

Ab	Abortion
AC	Abdominal circumference
ADPKD	Autosomal dominant polycystic kidney disease
AFI	Amniotic fluid index
AFP	Alpha-fetoprotein
AMA	Advanced maternal age
Amnio	Amniocentesis
Ao	Aorta
ART	Assisted reproductive technology
ANC	Antenatal clinic
APH	Antepartum haemorrhage
ARM	Artificial rupture of membranes
ARPKD	Autosomal recessive polycystic kidney disease
AS	Aortic stenosis
ASD	Atrial septal defect
A/V, AV	Anteverted (uterus)
AoV	Aortic valve
AVSD	Atrioventricular septal defect
AVV	Atrioventricular valves
BP	Blood pressure
BPD	Biparietal diameter
Br / ext	Breech with extended legs
Br / flx	Breech with flexed legs
BSO	Bilateral salpingo-oophorectomy
Ca 125	Cancer antigen 125
CDH	Congenital diaphragmatic hernia
cffDNA	Cell free fetal DNA
CHD	Congenital heart disease
CPAP	Continuous passive airways pressure
CPR	Cerebroplacental ratio
CRL	Crown rump length

CVS	Chorionic villus sampling
DA	Ductus arteriosus
D&C	Dilation and curettage
DCDA	Dichorionic diamniotic
DIE	Deep infiltrating endometriosis
DTA	Deep transverse arrest
DV	Ductus venosus
DVT	Deep vein thrombosis
ECV	External cephalic version
EDD	Expected date of delivery
EFW	Estimated fetal weight
ERPOC	Evacuation of retained products of conception
EUA	Examination under anaesthesia
FBS	Fetal blood sampling
FD	Fully dilated
FDIU	Fetal death in utero
FET	Frozen embryo transfer
FGR	Fetal growth restriction
FISH	Fluorescence in situ hybridisation
FL	Femur length
FMF	Fetal movements felt
FSH	Follicle stimulating hormone
FT	Full term
GA	General anaesthesia
GDM	Gestational diabetes
GTT	Glucose tolerance test
Hb	Haemoglobin
HC	Head circumference
hCG	Human chorionic gonadotrophin
HDN	Haemolytic disease of the newborn
HL	Humerus Length
H mole	Hydatidiform mole
HVS	High vaginal swab

Hx	History
HyCoSy	Hysterosalpingo Contrast Sonography
IDDM	Insulin dependent diabetes mellitus
IPH	Intrapartum haemorrhage
IMB	Intermenstrual bleeding
IUCD	Intrauterine contraceptive device
IUGR	Intrauterine growth restriction
IUI	Intrauterine insemination
IUT	Intrauterine transfusion
IVC	Inferior vena cava
IVF	Invitro fertilisation
LA	Left atrium
LAI	Left atrial isomerism
LH	Luteinising hormone
LNMP	Last normal menstrual period
LPA	Left pulmonary artery
LUSCS	Lower uterine segment caesarean section
LSO	Left salpingo-oophorectomy
LV	Left ventricle
LVOT	Left ventricular outflow tract
MCA	Middle cerebral artery
MC	Miscarriage
MCDA	Monochorionic diamniotic
MCDK	Multicystic dysplastic kidney
MCMA	Monochorionic monoamniotic
MOM	Multiples of the Mean
MPA	Main pulmonary artery
MROP	Manual removal of placenta
MSU	Midstream specimen of urine
MV	Mitral valve
MVP	Maximum vertical pocket
NAD	No abnormality detected
NB	Nasal bone

NBF	Neville Barnes Forceps
NIDDM	Non-insulin dependent diabetes mellitus
NIPT	Noninvasive prenatal test
NND	Neonatal death
N/S	Normal size
NT	Nuchal translucency
NTD	Neural tube defect
NVD	Normal vaginal delivery
OPU	Ovum pickup
PA	Pulmonary artery
PAPPA	Pregnancy associated protein A
PCB	Postcoital bleeding
PCOS	Polycystic Ovary Syndrome
PCR	Polymerase chain reaction
PET	Pre-eclampsia (pre-eclamptic toxaemia)
PI	Pulsatility index
PID	Pelvic inflammatory disease
PM	Post-mortem examination
PMB	Post-menopausal bleeding
POD	Pouch of Douglas
PP	Placenta praevia
PPH	Post-partum haemorrhage
PR	Per rectum
PS	Pulmonary stenosis
PSV	Peak systolic velocity
PUO	Pyrexia of unknown origin
PV	Per vaginum
Pu V	Pulmonary valve
RA	Right atrium
RAI	Right atrial isomerism
RBC	Red blood cells
RDS	Respiratory distress syndrome of newborn
RI	Resistance index

RPA	Right pulmonary artery
RPOC	Retained products of conception
RSO	Right salpingo-oophorectomy
R / V	Retroverted (uterus)
RV	Right ventricle
RVOT	Right ventricular outflow tract
SB	Stillbirth
SDR	Systolic diastolic ratio
SGA	Small for gestational age
SHBG	Sex hormone binding globulin
SIS	Saline infusion sonogram
STD	Sexually transmitted disease
SVC	Superior vena cava
SVT	Supraventricular tachycardia
TA	Transabdominal
TAPS	Twin anemia polycythaemia sequence
TGA	Transposition of the great arteries
TOF	Tetralogy of Fallot
TOP	Termination of pregnancy
TP	Transperineal
TR	Tricuspid regurgitation
TTTS	Twin to twin transfusion syndrome
TVUS	Transvaginal ultrasound
TV	Tricuspid Valve
TVOA	Transvaginal oocyte aspiration
UA	Umbilical artery
Ut A	Uterine artery
UTI	Urinary tract infection
Vag hyst	Vaginal hysterectomy
VBAC	Vaginal birth after caesarean section
VSD	Ventricular septal defect
WBC	White blood cells

Glossary of Terms

ACCREDITATION

The formal process by which a hospital obtains recognition from the RANZCOG as a training unit/site for RANZCOG training programs.

ACCREDITED HOSPITAL

A hospital which has been accredited by the RANZCOG as a training unit/site for RANZCOG Training Programs.

AUSTRALIAN SOCIETY FOR ULTRASOUND OF MEDICINE (ASUM)

A multidisciplinary society advancing the clinical practice of diagnostic medical ultrasound for the highest standards of patient care.

BOARD

The governing body of the RANZCOG with an elected term of two (2), two (2)-year terms

CANDIDATE

A person attempting the Written and/or Oral examinations and/or IHCA for the COGU Subspecialty and/or the IHCE for the COGU Subspecialty.

CERTIFICATION

The formal process by which a trainee who has met all relevant Subspecialty selection, training and assessment criteria is recognised as a Subspecialist, after also attaining Fellowship of the RANZCOG.

CERTIFICATION IN GYNAECOLOGICAL ONCOLOGY (CGO)

Certification in the treatment of genital malignancy after attaining Fellowship of the RANZCOG.

CERTIFICATION IN MATERNAL FETAL MEDICINE (COGU Subspecialty)

Certification in the area of maternal and fetal physiology and pathology after attaining Fellowship of the RANZCOG.

CERTIFICATION IN OBSTETRICAL AND GYNAECOLOGICAL ULTRASOUND (COGU Subspecialty)

Certification in obstetrical and gynaecological ultrasound after attaining Fellowship of the RANZCOG.

CERTIFICATION IN REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY (CREI)

Subspecialty training of three (3) years' duration in the treatment of reproductive endocrine disorders and infertility undertaken after attaining Fellowship of the RANZCOG.

CERTIFICATION IN UROGYNAECOLOGY (CU)

Certification in the field of Urogynaecology, after attaining Fellowship of the RANZCOG.

CLINICAL TRAINING SUMMARIES (CTS)

Sheets containing summaries of the clinical experiences (both primary operator procedures and assists) recorded by a trainee in their Logbook. These summaries are compiled by the trainee every six (6) months and checked/signed by the COGU Subspecialty Committee Chair.

COLLEGE (RANZCOG)

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

The RANZCOG program for continuing professional development in which all Fellows of the College must participate to qualify for renewal of their Fellowship or Subspecialty Certification, annually.

CONSULTANT

A specialist in obstetrics/gynaecology and Fellow of the College or certified Subspecialist with whom a trainee trains in an accredited Subspecialty training unit.

CONSULTANT ASSESSMENT of TRAINEE REPORT

A form completed every six (6) months by each consultant working with a trainee, assessing the trainee's knowledge, skill and attitudes. From these reports the relevant Training Supervisor compiles the six (6)-monthly summative assessment report and added in the TAR.

COUNCIL

The governing body of the RANZCOG with an elected term of two (2) years.

CREDITED TRAINING

A period of prospectively approved training of not less than 10 weeks (FTE) period for which a trainee has satisfactorily completed all assessment requirements and paid the necessary annual training fee.

EDUCATION & ASSESSMENT COMMITTEE (EAC)

A Standing Committee of Council responsible for developing and maintaining the requirements for examinations and assessments leading towards the FRANZCOG and Subspecialty qualifications.

ELEVATION

The formal recognition that a trainee who has met all relevant selection and assessment criteria is a Fellow (FRANZCOG) of the College.

EXAMINER

A specialist in obstetrics/gynaecology formally approved by the RANZCOG to assess the Written and Oral examinations.

FORMATIVE APPRAISAL RECORD (FAR) – THREE MONTHLY

A compulsory self-assessment in competencies in the categories of clinical, academic and professional abilities undertaken before meeting with the Training Supervisor.

FELLOWSHIP (FRANZCOG)

The qualification awarded to a trainee, subject to approval by Council, who has satisfactorily completed all assessment and administrative requirements for the designated 276 weeks (72 months) FTE of FRANZCOG training.

IN-HOSPITAL CLINICAL ASSESSMENT (IHCA) for COGU Subspecialty

A requirement of the COGU Subspecialty training program in diagnostic ultrasound. COGU Subspecialty Subspecialist examiners examine this assessment.

IN-HOSPITAL CLINICAL EXAMINATION (IHCE) for COGU Subspecialty

A requirement of the COGU Subspecialty Training program in diagnostic ultrasound. COGU Subspecialty Subspecialist examiners, assess this examination.

ONLINE LOGBOOK

An online record of clinical experiences available via My.RANZCOG platform, which trainees must maintain for every year of their FRANZCOG/ Subspecialty training.

PROGRAM DIRECTOR

A certified Subspecialist responsible for planning and co-ordinating a Subspecialty Training Program at an accredited Subspecialty Training Unit.

REGISTERATION OF TRAINEES (Registration Form A)

The formal College record of all those undertaking the Subspecialty Training Programs.

REGULATIONS

The formal stipulation of training requirements and the conduct of examinations and assessments approved by the Council of the RANZCOG.

RESEARCH-BASED DISCUSSION (RBD)

Assessment of an individual's analysis of contemporary research related to their discipline.

SCHOLARLY ELECTIVE: RESEARCH OR NON-RESEARCH STREAM**RESEARCH STREAM**

Experience in research, in clinical obstetrics and gynaecology or original research work of sufficient quality and which meets the requirements of the relevant Subspecialty Training Program. Trainees are required to submit this as part of their assessment when completing the Research Stream.

NON-RESEARCH STREAM (COGU Subspecialty, COGU Subspecialty & CREI Trainees only)

COGU Subspecialty, COGU Subspecialty & CREI trainees have the additional option of completing a prospectively approved vocational training course with relevance to their chosen Subspecialty.

TRAINEE FEEDBACK SURVEY (ONLINE)

A confidential questionnaire on all aspects of training, which trainees are asked to complete at the end of each six (6)-month training period and submit with their TAR.

SPECIALIST INTERNATIONAL MEDICAL GRADUATE (SIMG)

A medical practitioner in obstetrics/gynaecology who does not have an Australian or New Zealand primary medical degree and/or Australian/New Zealand residency status, and who must apply to the RANZCOG for assessment of their eligibility for specialist and/or Subspecialist recognition.

STATEMENT OF UNDERSTANDING (SoU)

The Statement of Understanding must be completed annually.

SUBSPECIALTIES COMMITTEES

Six (6) committees (an umbrella committee and one (1) for each Subspecialty) responsible for the development and maintenance of training and assessment requirements to achieve qualification in a Subspecialty.

SUBSPECIALTY SELECTION

A formal process of selection applying to all prospective trainees intending to undertake the Certification in Gynaecological Oncology (CGO), Obstetric and Gynaecological Ultrasound (COGU Subspecialty), Reproductive Endocrinology and Infertility (CREI), Urogynaecology (CU) or Maternal Fetal Medicine (COGU Subspecialty).

SUBSPECIALTY TRAINING PROGRAM

A 138 weeks (three (3) year) (FTE) full-time training program leading to a certificate in one of the following areas: Gynaecological Oncology; Maternal Fetal Medicine; Obstetrical and Gynaecological Ultrasound; Reproductive Endocrinology and Infertility; and Urogynaecology.

SUBSPECIALTY TRAINING SUPERVISOR

A consultant and Subspecialist, who is a member of staff in an accredited hospital unit, responsible for the co-ordination and ongoing supervision of Subspecialty trainees in that unit, including the formal assessment of one (1) or more trainees every six (6) months.

TRAINEE

A medical practitioner, who meets the eligibility criteria described in the RANZCOG Regulations and whose training has been prospectively approved), undertaking a FRANZCOG or Subspecialty Training Program.

TRAINING ASSESSMENT RECORD (TAR) – SIX MONTHLY

A collection of documents, compiled every six (6) months, recording and presenting for assessment, all the completed training experiences of each Subspecialty trainee.

TRAINING POSTION

A hospital position in an accredited hospital, which has been accredited by the RANZCOG as suitable for training towards FRANZCOG.

TRAINING UNIT

One or more sites that have been accredited as a group by RANZCOG as suitable for training towards Subspecialty Certification.

TRAINING YEAR

A 'Subspecialty training year' consists of two (2) consecutive 'six (6)-month training blocks' based around (but not confined to) a calendar year and is determined by the relevant Subspecialty Committee.

WORKPLACE-BASED ASSESSMENTS (WBA'S)

Assessment of skills and behaviours in-situ and across multiple occasions.

Version	Date of Version	Pages revised / Brief Explanation of Revision
v1 2024	Nov 2023	Dates, Research requirement description , RPL
v2	January 2024	Revised to reflect change in nomenclature

Document Version:	Version 2
Document Owner:	Education Directorate / Subspecialties
Document Approved by:	Subspecialties Team
Review of Document:	Nov 2024



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