Breast Imaging

Australian Institute of Radiography
P.O. Box 16234
Collins Street West 8007

Ph: (03) 9419 3336
Fax: (03) 9416 0783
Email: air@air.asn.au

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Breast Imaging

In 1991 the AIR recognised Mammography as a specialty area and formed the Mammography Advisory Panel (MAP) as a committee of the then Council of the AIR to provide specialist advice and recommendations. The MAP produced a document “Education Policy of the AIR on Mammography and Mammography Screening” in 1992. This document was subsequently reviewed in 1997. Following a recommendation to the Council in 2001, the Mammography Advisory Panel changed its title to the Breast Imaging Advisory Panel (BIAP) to more accurately reflect the activities undertaken. In 2002 BIAP formulated the “Education Policy on Breast Imaging” which was incorporated in the AIR Education Policies. In 2005 the AIR reconfigured the advisory panels and the Breast Imaging and Ultrasound panels amalgamated to become the Medical Imaging Advisory Panel 2 (MIAP2). The Panel reviewed the Education Policy in October 2005 making minor adjustments. This document now replaces the previous 2002 version.

The AIR now considers breast imaging a specialty field and radiographers may work in either of two areas: diagnostic or screening. In addition, the AIR recognises that some radiographers specialising in mammography may also wish to perform breast ultrasound as a specialty area. Postgraduate university courses are available to gain qualifications in this area and the Australasian Sonographer Accreditation Registry (ASAR) accredits courses and registers Accredited Breast Sonographers (ABS). The AIR, which is represented on ASAR, supports this new direction.

Mammography education is briefly addressed in Medical Imaging undergraduate and graduate-entry programmes where only a basic knowledge of the field is provided. Competency in mammography is not considered an essential requirement for the accredited practitioner.

To achieve and deliver best practice in the area of mammography, the AIR will set standards for mammography programmes and programme providers and will accredit programmes and issue radiographers who have satisfactorily completed such programmes with a Certificate of Clinical Proficiency in Mammography (CCPM).

Accreditation of mammography programmes ensures a national standard of mammography education and training is available for radiographers wishing to attain advanced knowledge and clinical skills in the area.

Certification of radiographers provides professional recognition of this advanced level of knowledge and skills. In addition, it ensures continuing professional development and ongoing competence in the area through participation in a re-certification process.
Guidelines for the Development of Programmes in Mammography

The following information will assist the development of programmes in mammography.

The general principles for the development and accreditation of mammography programmes broadly follow the principles outlined for programmes conducted within the discipline of Medical Radiation Science.

Accreditation will be conducted, against stated criteria\(^1\), by evaluation of submitted documentation. However, other methods such as on-site visits and interviews with past and present participants may also provide additional support for the accreditation process.

Radiographers who hold accreditation issued by the AIR and who have satisfactorily completed an accredited mammography programme will be eligible to apply for an AIR CCPM.

Radiographers have a basic qualification in Medical Radiation Science and bring both educational and professional attributes to a programme of study in mammography. However, specific in-depth knowledge in the specialty area is required. On completion of a mammography programme, radiographers should:

- Possess knowledge, skills and attributes appropriate to the specialty area of mammography;
- Demonstrate a level of clinical competence commensurate with the Competency Based Standards for the Accredited Practitioner (2005).

Awards

At a minimum, a statement of "satisfactory completion" of both the academic and clinical components of a mammography programme is required to obtain AIR certification. Graduate certificates, or other university awards, are encouraged.

Programme Providers

Programmes in mammography shall be conducted by education providers that can demonstrate:

- Educational and training standards;
- Resources – financial and human; including evidence of a Programme Coordinator, with overall responsibility for programme delivery, possessing:
  - Appropriate teaching/training qualifications;
  - Demonstrated breadth of expertise in teaching/training;
  - Experience in supervising clinical courses (where clinical components are included).

\(^1\) Medical Imaging Advisory Panel 2 - Mammography Course Accreditation Checklist, 2005
For separate Clinical Modules, or where clinical components are included in a combined programme:

- Tutor Radiographers will possess a current CCPM and have recognised formal training qualifications and demonstrated mammography experience of at least two years;
- Supervisors will be radiographers who possess a current CCPM (where this is not possible a radiologist with experience in mammography may act in this role).

**Structure of Mammography Programmes**

Programmes shall contain both academic (theory) and clinical (practice) components. The mode of delivery may be flexible and the academic and clinical components may be combined or offered as separate modules. However, all programme requirements must be included. Where modules are offered separately, radiographers should be able to complete one module offered by one programme provider and the second module offered by another.

Programmes shall have stated learning aims and objectives and describe outcomes for the participants, including clinical competence requirements. Assessment methods for each component shall be clearly documented.

**Content of Programmes**

Regardless of the delivery mode, the following areas of knowledge, skills and attitudes must be developed and assessed within the programmes:

- Imaging
- Physics
- Medical / Biological Sciences
- Behavioural Science
- Population Screening
- Clinical Education

**Imaging**

- Routine mammographic imaging
- Views, exposures, compression, clinical image evaluation, augmented breasts, problem solving
- Diagnostic assessment techniques
- Work-up views, stereotactic technique, ultrasound
- Clinical film review and interpretation
- Digital Imaging
- New and emerging technologies and research
Physics

- Radiation physics
- Radiation protection
- Equipment
- Factors affecting image quality
- Assessment of technical image quality
- Overall quality assurance

Medical / Biological Sciences

- Breast Anatomy, Physiology and Pathology (including cytology and histology)
- Mammographic appearances
- Genetics, interventional techniques, treatment options - surgery, radiotherapy, chemotherapy
- Hormone replacement therapy
- Breast awareness

Behavioural Science

- Consent information and client preparation
- Communication and counselling
- Stress management
- Workplace health and safety issues

Population Screening

- Epidemiology of breast cancer
- Population screening
- Diagnostic versus screening mammography
- Risks versus benefits
- Psychological aspects of screening
- Medico-legal aspects
**Clinical Education**

The clinical module/practical component should be conducted at sites with a significant throughput to allow exposure to a variety of cases. It will be structured to include:

- Practical quality assurance for mammographic and processing equipment;
- Performance of a minimum of 50 mammographic examinations under direct supervision of a nominated tutor radiographer;
- Evaluation of clinical images;
- Participation in and observation of diagnostic assessments.

Following the initial training, ongoing competency in mammographic imaging shall be assessed by clinical image evaluation of a random selection of films following a further 200 supervised mammograms performed in the workplace.

Competency in mammographic imaging and client interaction shall be formally assessed. This may consist of:

- Tutor and/or Supervisor reports
- Written assignments
- Self-assessment reports
- Clinical image evaluation reports
- Client surveys

**Records**

At a minimum, providers of programmes must keep records of:

- Programme documentation and amendments
- Dates of programmes provided
- Participant attendance and certification

These documents may be accessed for auditing purposes.
Guidelines for Accreditation and Reaccreditation of Programmes in Mammography

Accreditation of mammography programmes is valid for a three-year period. Reaccreditation for a further three-year period will be considered upon receipt of appropriate documentation. Radiographers who satisfactorily complete accredited programmes are eligible to apply for the AIR CCPM.

Accreditation

The MIAP2 will recommend accreditation based on the documentation supplied and evidence of the academic and clinical components of the programme.

Initial accreditation of any programme should be obtained from the AIR prior to its implementation.

The AIR reserves the right to withdraw accreditation should the MIAP2 advise that they are satisfied that the conduct of the programme/module has not been in accordance with the submitted documentation.

Reaccreditation

Applications for reaccreditation shall be considered based on current programme documentation and evidence of a formal evaluation and review process of the programme. An audit of previous programme participants and documentation may be undertaken.

Conditional Accreditation

Conditional accreditation based on specific circumstances may be considered. This may apply at the written request of the programme provider or on the recommendation of MIAP2. Evidence of the programme provider being able to meet the structure and content requirements for programmes should be provided.

Extension to Accreditation

An extension to programme accreditation may be considered upon the written request of the programme provider. A period of not more than six months may be granted dependent on the circumstances. Evidence of the programme provider continuing to meet the structure and content requirements for programmes should also be provided.
Criteria for Accreditation

In addition to the details previously outlined, MIAP2 will examine in detail the following areas:

- An academic component provided in the range of 30 to 40 hours;
- A clinical component provided in the range of 30 to 40 directly supervised clinical contact hours;
- The stated aims and objectives of the programme with learning outcomes.

Information provided to the MIAP2 shall include:

- Details on the programme provider;
- Details on the staff and facilities available for each of the academic and clinical components;
- Documentation on the content, structure and organisation of each module (if provided separately), including workbooks, manuals and other learning aids;
- Details on the assessment methods.
Guidelines for Certification and Recertification of Radiographers in Breast Imaging

The AIR has established two levels of certification for radiographers specialising in mammography and breast imaging. Radiographers who satisfactorily complete AIR accredited mammography programmes may apply for the CCPM. This certificate is valid for a five-year period. Renewal for a further five years is considered on evidence of continuing professional development and clinical involvement. Radiographers who meet further specific requirements may apply for the Advanced Breast Imaging Certificate (ABIC). This is a permanent award in recognition of outstanding professional contribution in the specialty area of breast imaging.

This section outlines the basic requirements to apply for:

- CCPM
- Renewal CCPM
- ABIC

Further information can be obtained from the guidelines for issue of these certificates\(^2,3,4.\)

1. Certificate of Clinical Proficiency in Mammography

The applicant must:

- be a radiographer holding a current AIR Validated Statement of Accreditation;
- complete the relevant application form;
- pay the required fee;
- provide evidence of satisfactory completion (within a five-year period) of an AIR accredited mammography programme with both academic and clinical components or separate modules.

Applicants who have completed mammography programmes overseas will be assessed on an individual basis. Consideration will be given to the programme content and structure and the continuing professional development undertaken by the radiographer.

\(^3\) Breast Imaging Advisory Panel – Guidelines for the Renewal of the Certificate of Clinical Proficiency in Mammography, 2002
2. Renewal of Certificate of Clinical Proficiency in Mammography

The applicant must:
- be a radiographer and possess a current CCPM;
- complete the relevant application form;
- pay the required fee;
- provide evidence of continuing professional development and demonstrate clinical involvement in breast imaging as described in the guidelines.

3. Advanced Breast Imaging Certificate

The applicant must:
- be a radiographer and possess a current CCPM;
- complete the relevant application form;
- pay the required fee;
- provide evidence of activities sufficient to meet the requirements outlined in the guidelines.

Appeals

The following outlines the Appeal Process for:
- Accreditation and reaccreditation of mammography programmes
- Issue and renewal of the CCPM
- Issue of the ABIC

Appeals against the findings and recommendations of the MIAP2 shall be decided and resolved by Board of Directors.

All appeals must be in writing and addressed to the Chief Executive, Australian Institute of Radiography, P.O. Box 16234, Collins Street West 8007 and must be made within 3 months of the date of notification of the MIAP2 decision.

Appeals should clearly state:
- The reasons for the appeal
- Provide new or additional relevant documentation/information for assistance in the appeal process

Appeals not containing additional information or based on reasons other than those related to the application assessment process are unlikely to succeed.
The appeal process will be conducted according to the following guidelines:

- The written appeal and any additional/relevant information plus the original documentation will be referred to MIAP2.
- MIAP2 will complete a re-evaluation and convey the findings to Board of Directors.
- Appeals not amended will then be referred to Board of Directors who will:
  - Fully discuss the appeal ensuring that no deviation to the guidelines has occurred;
  - Ensure that any new information supplied by the applicant has been considered by MIAP2;
  - Seek advice and any recommendation from the MIAP2 chairperson;
  - Resolve a decision on the appeal.

The Chief Executive shall convey the result of the appeal to the applicant setting out the reasons for their decision and (if applicable) any change from the MIAP2 decision.

The decision of the Board of Directors will be final.