Standard 8: Professional requirements

The provision of a quality breast screening service requires an expert multidisciplinary team.

Criterion 8.1: The provision of an expert multidisciplinary team requires mandatory key roles to be appointed

Elements

8.1.1 The Lead Provider, subcontractors and ISPs must maintain an up-to-date list of all personnel filling mandated BSA roles (detailed in this Standard) within their region.

8.1.2 The BSA provider may choose to provide additional expertise in addition to the mandatory roles listed in this section in order to meet the specific needs of women receiving their services.

8.1.3 All professional requirements listed in Standard 8 are included in job descriptions and are subject to performance appraisals.

8.1.4 The provider ensures attendance by the relevant team member at national UDG meetings as per schedule (refer to Appendix V: Schedule of Uni- and Multidisciplinary Group Meetings.)

8.1.5 Prior to performing clinical work in the breast screening programme, all radiologists, surgeons, pathologists and medical physicists intending to practise in BSA must be accredited to ensure they meet the programme's requirements (refer to Appendix W: Accreditation Protocols).

8.1.6 The provider ensures there are opportunities for all staff with frontline contact with women (eg, telephone and reception staff) to be trained to:

- provide a well women-centred approach
- provide accurate information
- understand the eligibility criteria for the programme
- meet privacy and confidentiality requirements
- know when and where to refer each woman
- provide and maintain appropriate communication and listening skills
- respond effectively to difficult situations
- address, at the earliest opportunity, unsatisfactory experiences reported by women
- recognise their own knowledge limitations.

Criterion 8.2: Each provider has a designated Clinical Director

Elements

8.2.1 The Clinical Director is ultimately responsible for the overall clinical performance of the BSA programme in the detection and diagnosis of breast cancer in the geographical area defined by the Lead Provider contract, including any and all subcontractors. In undertaking their respective roles, the Clinical Director and Lead Provider manager are responsible for implementing the operation of BSA within their lead provider region.

8.2.2 The Clinical Director is medically qualified, registered to practise in New Zealand, holds relevant vocational registration, and is active professionally within the programme.

8.2.3 Mammographic screening for breast cancer is a radiological procedure and it is appropriate for the Clinical Director of a BSA Lead Provider to be a radiologist.

8.2.4 The Clinical Director may also undertake the role of the Lead Radiologist.

8.2.5 Responsibilities of the Clinical Director include:

- the implementation of a high quality mammography and assessment service, subject to adequate resources
- direct leadership of the clinical team throughout the lead provider region (including associated subcontractors)
- ensuring all screening staff receive adequate clinical training and regular updates, subject to adequate funding/resources
- oversight of clinical performance monitoring with the lead clinicians
- ensuring that fail-safe mechanisms are in place so that women with radiological abnormalities are recalled to assessment
- ensuring the NPQS are implemented, monitored and evaluated through a continuous quality improvement process in relation to technical, radiological and clinical services, subject to the availability of adequate resources
- overall responsibility for the accuracy of internal data audits
- ongoing review of programme performance data, with particular attention paid to cancer detection and the review of interval cancers
- ensuring advertising and publicity material are clinically correct via feedback to the National Screening Unit
- active involvement in the assessment clinics
- regular attendance at Clinical Directors' unidisciplinary meetings.

8.2.6 The Clinical Director has responsibility for the clinical performance of positions with a clinical aspect within the lead provider region, including:

- lead radiologist, pathologist and surgeon (and through them, all BSA radiologists, pathologists and surgeons)
- the Lead MRT (and through them, all BSA MRTs)
- other positions with a clinical component to their work, eg, medical physicist, breastcare nurse, data manager (if inputting or coding clinical data).

8.2.7 The Clinical Director must visit each subcontracted screening site and each assessment site at least annually and liaise with those at the clinical multidisciplinary meeting.

8.2.8 The Clinical Director must submit an annual return to the National Screening Unit showing the number of image review meetings attended in the year by each radiologist, regardless of whether they work in the main site or a subcontracted site.

8.2.9 Participating Clinical Directors must provide documented evidence that they have attended national and/or international meetings with a breast screening component. This should demonstrate that they have participated in breast screening components for at least 10 educational hours during the preceding three years.

8.2.10 Continuing professional development must include all the requirements of the appropriate speciality within the programme. It is expected that the Clinical Director will also actively participate in regional and national quality assurance activities (eg, interval cancer review).

Criterion 8.3: Each provider has a designated Lead Provider Manager

Elements

8.3.1 The Lead Provider Manager ensures the provision of effective operational management, leadership, planning and coordination for the service. In undertaking their respective roles, they have joint responsibility with the Clinical Director for the operation of the BSA programme within their lead provider region.

8.3.2 The Lead Provider Manager's areas of responsibility include:

- advocating for adequate resources being available within funding allocations to meet the requirements of the NPQS
- ensuring effective use of available resources
- ensuring all non-clinical aspects of the NPQS are implemented, monitored and evaluated
- ensuring the organisational quality plan is developed, implemented, monitored and evaluated, including overseeing the internal quality improvement activities and ensuring corrective actions where standards are not met
- overseeing the recruitment, education, training, professional development and ongoing quality of staff involved in the programme, in partnership with the Clinical Director
- ensuring recommendations from the BSA Independent Monitoring Group Report are acted upon
- facilitating a close working relationship between members of a multidisciplinary group
- ensuring adequate policies and procedures are in place to meet the requirements of the NPQS and the current *Data Management Manual*
- distributing any amendments to national documents
- communicating and liaising regularly with the Clinical Director to ensure the success of the service
- regular attendance at the Lead Provider Managers' UDG.

8.3.3 The Lead Provider Manager is responsible for the performance of all non-clinical staff, including:

- the Data Manager
- reception staff
- clerical staff
- recruitment and retention staff
- the Quality Coordinator.

8.3.4 The Lead Provider Manager visits each screening and assessment site in their region annually. This could be timed to coincide with the management multidisciplinary meeting.

8.3.5 Lead Provider Managers will have previous management skills and experience appropriate to the position, and should have or be working towards relevant tertiary qualifications, preferably in a health-related area.

8.3.6 Continuing professional development must include service-specific training (eg, the Diploma of Public Health, breast screening courses/conferences) in addition to management training, multidisciplinary courses and support to travel to other providers in New Zealand and internationally.

8.3.7 The Lead Provider Manager's expertise includes:

- an understanding of the philosophy and operations of a breast screening programme
- strong leadership skills
- planning for service provision
- working within budgets and financial allocations
- an understanding of working with the community
- managing people, bringing together a team and liaising with other professions.

8.3.8 The provider has processes in place to ensure that during the temporary absence of the manager there are appropriate resources, expertise or equipment to meet normal volumes/activities.

8.3.9 Orientation for a new Lead Provider Manager ensures exposure to the relevant facets of the programme and may include:

- visiting other sites within the programme
- visiting subcontractor sites
- liaison with other Lead Provider Managers within the programme
- attendance at regular national programme management meetings.

Criterion 8.4: Each provider has a designated Lead Radiologist

Elements

8.4.1 The Lead Radiologist is ultimately responsible for the quality of images, subsequent reports produced under his/her direction, the clinical performance of BSA radiologists and the overall imaging performance of the programme within their Lead Provider area.

8.4.2 The Lead Radiologist is responsible for the operation of the mammographic and associated mammographic quality assurance (MQA) programmes at all sites within the Lead Provider contract, and hence must liaise well with designated MQA radiologists at subcontractor sites.

8.4.3 The Lead Radiologist may also undertake the role of Clinical Director.

8.4.4 Specific responsibilities of the Lead Radiologist include:

- selecting a medical physicist (or more than one medical physicist) who will administer the MQA programme, perform the physicist quality control tests and oversee the work of the Quality Control MRTs
- ensuring the NPQS standards relevant to imaging are implemented, monitored and evaluated
- ensuring all imaging equipment is performing satisfactorily
- ensuring GPs/PCPs are kept fully informed of the screening outcomes for women registered with their practices
- reviewing radiologist performance data by site and by individual radiologist, as per the NPQS – an individual's data are confidential to the radiologist concerned, the Lead Radiologist and the Clinical Director
- active involvement as a screening and assessment radiologist within the programme
- ensuring BSA radiologists receive adequate training and regular updates.

8.4.5 The Lead Radiologist, Lead MRT and medical physicist are responsible for coordinating regular (eg, six-monthly) MQA meetings within their Lead Provider region. These meetings are to ensure that site-specific MQA programmes are in place and reviewed, and that fail-safe mechanisms are in place and operating routinely. These meetings must involve the medical physicist, either through a presence at the meeting, by teleconference or during the planning stage.

8.4.6 The Lead Radiologist is responsible for coordinating regular (at least six-monthly) radiologist meetings with all BSA radiologists in their Lead Provider region. These are to ensure that monitoring of activities and data occurs, a regional interval cancer review is performed, and fail-safe mechanisms are in place and operating routinely.

8.4.7 The Lead Radiologist is required to visit each assessment site to coordinate a clinical multidisciplinary meeting at least annually.

Criterion 8.5: There is a designated Medical Quality Assurance (MQA) Radiologist at each site

Elements

8.5.1 The specific responsibilities of the designated MQA Radiologist include but are not limited to:

- ensuring that an effective MQA programme exists for all mammography performed at the site
- selecting, in consultation with the Lead or Charge MRT, a single MRT to be the QC MRT, responsible for ensuring the prescribed quality control tests are performed at the site.

8.5.2 The designated MQA Radiologist reviews the MQA programme annually with the medical physicist for that site and ensures compliance with CSP-5.

8.5.3 The MQA Radiologist may also undertake the role of Lead Radiologist.

Criterion 8.6: Each provider has a designated Lead Pathologist

Elements

8.6.1 The Lead Pathologist provides professional leadership for all BSA-accredited pathologists in the pathological aspects of the programme, within their Lead Provider region.

8.6.2 The specific responsibilities of the Lead Pathologist include: but are not limited to:

- facilitating an effective quality assurance programme for all pathologists within their Lead Provider region
- facilitating processes whereby accredited pathologists receive adequate clinical training and regular updates
- confirming that processes are in place to implement, monitor and evaluate the relevant NPQS standards
- confirming that processes are in place to monitor the accuracy of pathology data
- ensuring there is a designated BSA-accredited pathologist from each contributing laboratory responsible for the quality of work at that site
- monitoring and assuring the provision of reports and slides to the assessment centre and treatment providers to meet the specified timeliness requirements
- regular attendance at pathologist unidisciplinary meetings.

8.6.3 The Lead Pathologist is responsible for monitoring the BSA-audited clinical performance of BSA pathologists.

8.6.4 The Lead Pathologist facilitates regular communication and pathology meetings, at least annually, with all BSA pathologists in their Lead Provider region.

Criterion 8.7: Each provider has a designated Lead Surgeon

Elements

8.7.1 The Lead Surgeon provides professional leadership on the surgical aspects of the programme in their Lead Provider region.

8.7.2 The specific responsibilities of the Lead Surgeon include but are not limited to:

- facilitating an effective quality assurance programme for all surgery (diagnostic biopsy and hook wire) performed within the programme
- facilitating, where necessary, the implementation and evaluation of the relevant NPQS standards
- facilitating the return of surgical treatment data via synoptic forms/reporting
- encouraging BSA surgeons to receive adequate opportunities for clinical training and regular updates
- being actively involved in the development of, as well as having an operational role within, the assessment process in their region
- regular attendance at surgeons' unidisciplinary meetings.

8.7.3 The Lead Surgeon is responsible for monitoring the BSA-audited clinical performance of BSA surgeons.

8.7.4 The Lead Surgeon facilitates the coordination of regular communication with all BSA-accredited surgeons in the Lead Provider region. This is to ensure that monitoring of activities and data occurs and that quality assurance processes are in place and operating routinely.

Criterion 8.8: Each provider has a designated Data Manager

Elements

8.8.1 The data manager is responsible for:

- the overall data quality and consistency of information recorded in the Lead Provider databases and for ensuring the data comply with all the National Screening Unit standards documented in the BSA documents
- ensuring data is forwarded to the national monitoring database as per the agreed timetable
- the use of information systems supplied by the National Screening Unit.

8.8.2 To ensure that activity and results are accurately monitored on a regular basis, the Data Manager liaises with:

- members of the multidisciplinary team
- service providers
- other BSA Data Managers
- the National Screening Unit, including attendance at BSA IT user groups
- key stakeholders.

8.8.3 Data Managers participate in ongoing professional development in areas including:

- database management skills
- quality assurance
- data analysis
- breast screening issues (eg, site visits)
- attendance at a data management/audit course every three years.

8.8.4 It is essential that the Data Manager demonstrates:

- a minimum of two years' experience managing a 'business critical' information system
- experience in data management and analysis, including report generation
- interpretation of report data
- experience in managing data quality.

8.8.5 The expertise of Data Managers should include:

- an understanding of audit, monitoring and evaluation requirements
- an understanding of the data management responsibilities (eg, audit and quality issues for manual and computer records)
- monitoring and facilitating the maintenance of appropriate information systems and database housekeeping activities
- appropriate knowledge and adequate training in the information system/database that captures and stores the information
- a thorough knowledge of the relationships with other information systems and interfaces
- the provision of accurate and meaningful *ad hoc* reports to the Clinical Director and other staff when required, as resources allow

- well-developed written and oral communication skills
- the identification of problem areas and possible areas of improvement and implementation of solutions, following authorisation by the Lead Provider Manager
- good working relationships with the other staff and stakeholders to ensure targets are met and the data are accurate
- project management
- understanding of user acceptance testing (UAT).

8.8.6 New Data Managers and staff in training must receive adequate supervision until they reach a level of competence that satisfies their immediate manager. New staff and staff in training must limit their data management activities to the areas they have been deemed competent in by their immediate manager.

8.8.7 The provider must establish contingencies to manage episodes of extended leave, sickness or the resignation of the Data Manager to ensure the continuity of data management and reporting.

Criterion 8.9: Each provider has a designated Lead Medical Radiation Technologist (MRT)

Elements

8.9.1 The Lead MRT provides professional leadership to MRTs within their region and is responsible for:

- ensuring site visits occur at least every six months
- ensuring a high standard of mammographic image quality is achieved by all MRTs in the lead provider region
- ensuring individual MRT performance is monitored and feedback is provided to each MRT in the team
- ensuring all MRTs participate in the monthly peer review process using mammographic image quality criteria
- identifying any training needs of MRTs and ensuring any appropriate training occurs
- overseeing the overall performance of the MQA programme within the Lead Provider region.

8.9.2 The Lead MRT is responsible for the clinical performance of the following within their region:

- all BSA MRTs
- the designated QC MRT (if other than a BSA MRT).

8.9.3 The Lead MRT will:

- be actively involved in performing a minimum of 700 screening mammograms annually within the programme
- demonstrate a high standard of mammography and maintain a strong clinical focus
- retain responsibilities as below, but be able to delegate
- meet all the professional and continuing professional development requirements of an MRT.

In addition, continuing professional development relevant to the managerial aspects of the lead role will be undertaken.

Criterion 8.10: There is a designated Charge MRT at each screening site

Elements

8.10.1 The Charge MRT is responsible for:

- ensuring MQA at that site occurs.
- technical/support staff who support MRTs
- reviewing the MQA programme annually with the QC MRT, the designated MQA Radiologist and the medical physicist to ensure compliance with NRL-C548
- ensuring all MRTs at their site meet the minimum entry and ongoing requirements for screening MRTs within the programme.

8.10.2 The designated Charge MRT:

- is actively involved in the programme
- demonstrates a high standard of mammography and maintains a strong clinical focus
- retains responsibilities as below, but is able to delegate
- meets all the professional and continuing professional development relevant to the managerial aspects of the role.

Criterion 8.11: Each provider has a designated Quality Control (QC) MRT at each screening and/or assessment site

Elements

8.11.1 The QC MRT may be the Charge MRT or another designated MRT for each screening site.

8.11.2 The designated QC MRT is responsible for:

- ensuring the mammographic quality assurance (MQA) programme occurs at that site
- ensuring all quality control tests are performed, data collection is adequate and current, and any corrective action is initiated as required
- ensuring the accuracy of the quality control data.

8.11.3 The designated QC MRT:

- is actively involved in the programme
- demonstrates a high standard of mammography and maintains a strong clinical focus
- retains responsibilities as above, but is able to delegate
- meets all the professional and continuing professional development relevant to the managerial aspects of the role.

Criterion 8.12: Each provider has a designated PACS administrator

Elements

8.12.1 The PACS administrator has training to fulfil the following competencies:

- being responsible for the day-to-day operation of mammography PACS equipment, including image work flow, archiving, auto-routing, pre-fetching and other related activities
- ensuring timely and complete capture of DICOM digital image data into the PACS system, as well as network transmission, Radiology Information System (RIS) validation and exceptions handling
- overseeing the activities of vendors in all phases of installation and maintenance of PACS
- overseeing and coordinating diagnosis, and maintaining and upgrading all PACS-associated hardware and software while ensuring its optimal performance
- overseeing and coordinating disaster recovery and data backup
- ensuring all procedures related to PACS are documented and current
- identifying future needs and efficient workflow processes
- coordinating application support via training sessions
- involvement in strategic planning of breast screening services, as appropriate.

Criterion 8.13: Each provider has a designated Quality Coordinator

Elements

8.13.1 The Quality Coordinator, on behalf of the Clinical Director and Lead Provider manager, coordinates the operation of the quality management systems within their Lead Provider region. This is expected to be a part-time role and can be combined with another role, provided there is no conflict of interest.

8.13.2 The Quality Coordinator helps ensure that the systems and protocols within Lead Providers and subcontracted sites meet quality requirements.

8.13.3 The Quality Coordinator assists professional groups, the manager and Clinical Director to:

- ensure the NPQS are met
- coordinate corrective actions when standards are not met
- ensure the organisation's quality plan is current, implemented, monitored and evaluated
- ensure the recommendations stemming from the BSA Independent Monitoring Group reports are responded to
- ensure all relevant information, policies and procedures remain current
- facilitate internal quality improvement activities
- organise quality-related meetings on a regular basis and maintain a record of these, including attendance and outcomes
- manage internal document control of NPQS across all sites, including subcontractors.

8.13.4 The Quality Coordinator liaises with the Clinical Director and Lead Provider Manager to:

- document protocols and processes and plan for or timetable all internal audit requirements
- provide comparisons of provider data with external audit, with a focus on BSA Independent Monitoring Group reports
- ensure the effective provision of clinical performance information
- develop and facilitate the monitoring of the quality plan on a quarterly basis.

8.13.5 The Quality Coordinator liaises with the lead clinicians to ensure analysis of individual staff performance measures. Such information is confidential within the respective professional group(s).

8.13.6 The Quality Coordinator liaises with the Charge MRT to:

- review MQA data to monitor the effective operation of the screening process
- ensure analysis of individual staff performance measures – such information remains confidential within the professional group.

8.13.7 The Quality Coordinator liaises with the data manager to:

- verify protocols for determining all audit and performance data
- review all programme data for anomalous results

- ensure analysis of performance data by individual sites, where appropriate
- ensure the resolution of all missing, erroneous or suspicious data on a case-by-case basis.

8.13.8 The Quality Coordinator will have demonstrated an ability in implementing quality and audit systems, and will have experience in a health-related field and/or a qualification in quality management such as the Certificate of Quality Assurance.

8.13.9 The provider ensures there is appropriate training and orientation for staff new to the Quality Coordinator role.

8.13.10 Orientation and ongoing training may include but is not limited to:

- visiting sub-contractor sites within their region
- visiting other sites within the programme
- liaison with other Quality Coordinators within the programme
- attendance at regular Unidisciplinary National Quality Management meetings
- courses, including summer schools, etc.

8.13.11 The Quality Coordinator will have a close working relationship with the Clinical Director and the Lead Provider Manager, particularly when new in the role.

Criterion 8.14: Each provider has qualified breastcare nurses

Elements

8.14.1 The breastcare nurse primarily provides information, education, support and counselling services for women undergoing assessment, but is available to assist women at any stage of the screening process, if required.

8.14.2 All women participating in BSA are entitled to services from the breastcare nurse which:

- comply with legal, professional, ethical and other standards relevant to the profession of nursing, minimising any potential harm to and optimising the quality of life of that individual
- are delivered in a professional manner, consistent with the physical, psychological, spiritual and cultural needs of the individual.

8.14.3 The breastcare nurse works as a member of a multidisciplinary team in partnership with women, their families and whānau to empower each woman to make informed choices and optimise her health and wellbeing.

8.14.4 The role of the breastcare nurse includes, but is not limited to:

- empathetically providing support to women and their family/whānau
- acting as advocate for the woman and her supporters
- providing education and information with a particular emphasis on facilitating informed decision-making for women prior to attending assessment and after a diagnosis of cancer
- promoting awareness of psychosocial issues of concern to well women participating in screening
- referring women (where appropriate) to other support services
- facilitating communication between other health professionals and services (particularly GPs/ PCPs) regarding the care of individual women
- providing nursing support for clinicians during all stages of assessment
- ensuring there are appropriate infection control protocols in place
- facilitating appropriate handling and pathways for pathology specimens
- facilitating access to clinical supplies for assessment days.

8.14.5 The role of a BSA breastcare nurse is undertaken by a registered nurse with a current practising certificate and a minimum of two years' postgraduate work experience as a registered nurse and a strong commitment to the provision of a high standard of care.

8.14.6 The registered nurse will have demonstrated an understanding of and a commitment to meeting the NPQS.

8.14.7 Within the first year of employment the BSA nurse must have attended/or be attending a breastcare nurse course where one is available. Where possible the course should be accredited by the New Zealand Nursing Council.

8.14.8 The breastcare nurse, in consultation with the manager, must develop both short-and long-term strategies relating to personal career development within the programme. In order to provide a specialist service for women, the breastcare nurse must have access to ongoing breast-specific training.

8.14.9 The breastcare nurse must follow the New Zealand Nurses Organisation Professional Development and Recognition Programme's requirements for nursing study, planned educational programmes and self-directed study, including attending:

- 50% of clinical multidisciplinary in-house sessions for case review, or 15 meetings annually, whichever is the greater
- nationally recognised education programmes,
- regional, national or international seminars, conferences or courses (at least three in any five-year period)

Clinical supervision, if requested by the breastcare nurse, is available.

8.14.10 The breastcare nurse demonstrates advanced knowledge of nursing theory and practice, with an emphasis on:

- anatomy and physiology of the breast
- signs and symptoms of breast disorders
- pathology of breast cancer
- diagnostic procedures/interventions and potential complications
- therapeutic interventions and potential complications
- treatment options and/or trial protocols
- self-help groups/support services and community networks
- issues relating to population screening of well women
- principles and processes of research and quality assurance
- professional ethics
- Health Information Privacy Code (1994)
- Health and Disability Service Consumers' Rights (SR 1996/78)
- the Treaty of Waitangi and the subsequent impact on Māori health.

8.14.11 The breastcare nurse will demonstrate expertise in:

- breast awareness
- nursing and health assessment
- client information and educational needs assessment
- assessment and support
- determining when the woman requires referral to relevant health professionals for additional specialised psychological care
- written and verbal communication
- communication/listening
- evaluation and feedback
- support and advocacy
- participation as a member of a multidisciplinary team
- quality improvement activities
- clinical breast examination, where mandated and appropriately trained.

Criterion 8.15: Each provider has a qualified medical physicist

Elements

8.15.1 The medical physicist's areas of responsibility include, but are not limited to:

- ensuring the quality assurance (MQA) programme is of the required standard and is operating effectively
- ensuring all imaging and ancillary equipment is covered by the MQA programme (eg, X-ray equipment, reporting stations, CR plate readers, localisation devices, ultrasound imagers and hard-copy devices)
- being a member of the breast screening site MQA committee, which will meet quarterly to review results and annually to review the QA programme
- performing the medical physics quality control tests
- ensuring the performance and calibration of quality control test equipment
- performing acceptance testing on new imaging and associated equipment prior to its use on women
- assisting the quality control MRT in the review of MRT quality control test data
- advising the quality control MRT on all matters concerning image quality and the MQA programme
- advising the designated MQA radiologist, specifically in the areas of image quality and all aspects of the MQA programme, safety and equipment purchase
- advising the Lead Provider Manager and/or Clinical Director specifically in the areas of safety, quality control analysis and equipment purchase, including the preparation of equipment specifications
- co-operating with all others involved in the programme
- co-operating with other medical physicists working in BSA
- providing radiation protection advice to the screening unit, particularly the licensee, and ensuring the radiation safety of the women, staff and members of the public
- ensuring regulatory compliance.

8.15.2 Where a provider employs more than one medical physicist, there must be a designated lead medical physicist.

8.15.3 All medical physicists working in the programme are members of the Medical Physicists Unidisciplinary Group (UDG) and are required to take part in these meetings and other activities.

8.15.4 Medical physicists who are providing services to BSA must satisfy the following criteria.

- They must be explicitly trained in the physics of mammography and in the philosophy of breast screening.
- Approved courses agreed by the Royal Australian and New Zealand College of Radiologists (RANZCR) and the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM) and practices are provided by the ACPSEM. Other internationally recognised courses (eg, those provided in the USA by the American Association of Physicists in Medicine / American College of Radiology (ACR) and in the UK by the Institute of Physics and Engineering in Medicine) are acceptable.

- To be acceptable, a course must contain a minimum of 20 contact hours of documented, specialised training in conducting surveys of mammography facilities. Time must also be spent visiting established screening units in order to gain practical experience working with physicists in the field, including a minimum of eight hours' training in digital mammography.

They must also:

- be an appropriately licensed medical physicist under the Radiation Protection Act 1965
- hold a master's degree or higher qualification in physics
- have recognised, documented, specialised training in conducting surveys of mammography facilities as per American College of Radiology (ACR) or RANZCR standards
- have experience of conducting surveys of at least six machines over a 12-month period (ie, six machines, two tests per machine, each six months apart within BSA) – experience conducting surveys must be acquired under the direct supervision of a medical physicist who meets all the requirements of the NPQS.

Where experience has been gained overseas, two supervised surveys are required as part of the orientation to BSA protocols and standards.

8.15.5 Medical physicists providing such services will participate in continuing professional development (CPD) in the area of mammography physics, including:

- attendance at at least one scientific meeting or refresher course, with content specific to mammography physics, every two years – only time spent on mammography physics may count towards the 15 hours of CPD
- attendance at relevant multidisciplinary or peer review and audit meetings
- review of current journals and authoritative material relevant to mammography physics.

The medical physicist must meet the RANZCR/ACR standard of 15 hours' CPD in mammography physics during the 36 months immediately preceding any facility survey. A record of medical physicists practising in New Zealand who meet this standard will be kept by the national physics coordinator. The national physics coordinator, in conjunction with the medical physicists UDG, will give advice on the attainment of CPD requirements.

8.15.6 To achieve and maintain an adequate awareness of current technology and techniques, the medical physicist must:

- during the 24 months immediately preceding any survey, conduct two full facility surveys, including review of the facility MQA programme, and either:
  - perform MQA surveys on six mammography units in the previous 12 months to RANZCR standards, or
  - perform MQA surveys on four mammography units, plus
  - have extensive experience, and
  - work in general diagnostic radiology
- participate in the review of MQA data from surveys on at least six mammography units at least once a year, and have access to such data when necessary

- liaise with other mammography physicists and attend national meetings on mammography physics organised by the medical physicists UDG, and support practical inter-comparison sessions associated with the UDG meetings
- undertake visits to other centres active in mammography physics to compare techniques at least every two years ('buddy visits').

8.15.7 Staff in training can perform medical physics duties under the direct supervision of a qualified medical physicist currently practising within BSA. Staff in training must undertake the full range of tasks under the direct supervision of the medical physicist. Trainees must undertake duplicate surveys and be directly supervised for any procedure conducted within the programme. Until a medical physicist meets the accreditation requirement, the survey remains the responsibility of the supervising medical physicist and must be signed by them.

8.15.8 The medical physicist must participate in a planned, coordinated MQA programme covering all imaging equipment that will be used in achieving a diagnosis, as well as ancillary equipment. The MQA programme must also include the test and calibration of the MQA test equipment itself and the provision of the medical physics service. The service must be specified in a written agreement between a breast screening unit and the designated medical physics services.

8.15.9 The physics QA tests must be performed in a standardised manner and to the national protocols in order to facilitate the exchange of data. A national protocol of tests, based on those recommended by RANZCR, has been agreed, and will be continually reviewed by the medical physicists UDG. Additions to the RANZCR tests are necessary for regulatory compliance.

8.15.10 In accordance with the UK National Health Service Breast Screening Programme guidelines, and to promote compliance with CSP-5, there is a programme of dose measurements on women.

8.15.11 There must be an internal quality system to ensure that:

- all critical test failures are identified to the facility on the day testing is completed
- 95% of preliminary reports are provided to the unit on the day testing is completed
- 95% of final reports are provided to the unit within 20 working days of the day testing is completed
- defects are reviewed when identified and the medical physicist specifies the timeframe in which they must be resolved in consultation with the Clinical Director.

8.15.12 The medical physicist must send medical physics quality assurance survey results to the national physics coordinator, who collates the results.

8.15.13 The medical physicists UDG must ensure the efficient exchange of information to ensure national protocols are maintained and revised on the basis of current evidence.

Criterion 8.16: Each provider has qualified medical radiation technologists (MRTs)

Elements

8.16.1 MRTs require skills that will make mammography an acceptable experience for women by minimising anxiety at all stages of the screening pathway.

8.16.2 The MRT has two main areas of responsibility:

- provision of an acceptable screening experience for women who participate in BSA
- the provision of medical images of high quality to ensure the detection of small cancers – the detection of such cancers will demonstrate the benefits of screening mammography for women.

8.16.3 All MRTs performing screening mammography within BSA must be trained and qualified as MRTs. They must be registered with the Medical Radiation Technologist Board and hold a current annual practising certificate. All MRTs must also have completed a Post Graduate Certificate or a Clinical Competence in Mammography (New Zealand Institute of Medical Radiation Technology – NZIMRT), or a recognised equivalent within two years of commencing employment with the programme. Any overseas mammography qualifications must be endorsed by the Lead MRT UDG and BSA clinical leader.

8.16.4 To assist in maintaining the necessary skill level and expertise, MRTs should:

- remain up to date with advances in clinical practice and mammography techniques
- be conversant with current methods of early detection and treatment of breast disease.

These should be achieved by regular attendance (no less than one every three years) at validated update courses, conferences or seminars. These may be regional, national or international and it is desirable that one event contain a clinical component. Within each screening centre, ongoing education must occur through regular in-house study programmes, journal reviews and peer teaching sessions.

All continuing education should be of a quality that would enable it to be included in the continuing professional development programme (CPD) endorsed by NZIMRT.

8.16.5 All new MRT staff requiring training will be supervised by an MRT who holds a mammography qualification recognised by NZIMRT. Mentoring of the MRT in training must occur until the level of competency reached enables the MRT to function with a technical reject rate of less than 3%. Staff under training must progressively become involved in all relevant aspects of the screening programme as their competency levels develop.

8.16.6 MRTs must complete a minimum of eight hours' training in digital mammography.

8.16.7 All MRTs performing screening mammograms in BSA must assess each examination using the mammographic image quality (MIQ) classification criteria. These MIQ classification criteria are to be used in all training situations and whenever conducting peer review. Images that fall into the inadequate category are to be recorded as such. While these may be recorded as rejects, there may be instances when they are retained if they assist in the comprehensiveness of an examination.

8.16.8 All MRTs participate in peer review of images monthly. The Lead MRT may determine the times and method used. However, the peer review process must utilise the MIQ criteria and must support the Lead MRT's responsibility to maintain overall image quality.

8.16.9 All MRTs involved in BSA (except Lead MRTs) must be performing no less than 1000 mammograms per year, or 80 per month, or working 0.4 FTE within BSA.

8.16.10 All MRTs working in either fixed or mobile sites are to attend a minimum of three assessment clinics and three clinical multidisciplinary meetings per year.

8.16.11 All MRTs must attend regular sessions (at least monthly) reviewing images for technical quality.

Criterion 8.17: Each provider has qualified pathologists

Elements

8.17.1 A pathologist involved in BSA will be medically qualified and registered to practise in New Zealand. All BSA pathologists should hold recognised postgraduate qualifications in pathology and be enrolled on the New Zealand Medical Council's Vocational Register in anatomic or general pathology.

8.17.2 Participating pathologists must be enrolled in the Royal College of Pathologists of Australasia's CPD scheme and complete the appropriate requirements for participation in the programme.

8.17.3 Every three years participating pathologists must submit evidence to the Unidisciplinary Pathologists Group that they have attended national and/or international pathology meetings or conferences with a component on breast pathology. They should demonstrate that they have participated in the breast pathology components for a total of at least six educational hours over the preceding three years.

8.17.4 BSA pathologists must report on a minimum of 50 patient biopsy episodes from assessment clinics or open diagnostic biopsies within the programme per annum. Each tissue sample is counted as a separate episode and, if double signed, counts as an episode for each signing pathologist.

8.17.5 BSA pathologists must attend a minimum of eight BSA multidisciplinary meetings each year while ensuring that a BSA-accredited pathologist is present at each multidisciplinary meeting to present and comment on relevant pathology.

8.17.6 Pathologists in training may undertake gross and microscopic descriptions of screen-detected lesions, but the material must be reviewed and signed out by a BSA pathologist.

8.17.7 Pathologists reporting on screen-detected lesions should have sufficient exposure to relevant material to develop and maintain competence in the reporting of such cases. The lead pathologist should endeavour to make material from larger assessment centres available to pathologists working with smaller volumes as a teaching/learning resource.

8.17.8 All BSA pathologists must be enrolled and participate in the Royal College of Pathologists of Australasia's Quality Assurance Program (QAP). BSA pathologists must participate on an individual rather than a laboratory basis and complete five surveys every two years. The results of participation in the QAP scheme must be recorded and provided to the programme by the Lead pathologist and be available for external audit as required.

8.17.9 All participating laboratories should be enrolled in the Royal College of Pathologists of Australasia Anatomical Pathology quality assurance programme.

Criterion 8.18: Each provider has qualified radiologists

Elements

8.18.1 Radiologists involved in BSA will be medically qualified, registered to practise in New Zealand and have a basic qualification in radiology, such as Fellowship of RANZCR. They will also hold vocational registration in diagnostic radiology.

8.18.2 BSA radiologists must undertake further training prior to commencing screening mammography within the programme. This should include, as a minimum:

- reporting of a minimum of 2000 mammograms within the 12 months prior to commencement
- completion of 300 dummy third reads within the three months prior to commencement (a recall rate of not more than 12% is required)
- demonstration of reader sensitivity of 80% from a cancer seeded set of images such as BREAST
- participation as an observer at the full clinical multidisciplinary team meetings, and the process of resolution of discordant readings during the period of training as a third reader
- attendance at one teaching course currently recognised by RANZCR within the last two years.

8.18.3 Prior to commencing unsupervised assessment, radiologists must satisfy the Clinical Director that they are competent in the following:

- supervising and interpreting mammographic work-up
- performing and interpreting breast ultrasound
- performing invasive procedures available in their assessment clinic
- attendance and supervised participation during the 12 months prior to commencement in 10 assessment sessions within an established national population-based screening programme, either in New Zealand or overseas, at a screening facility approved by RANZCR.

8.18.4 All radiologists must participate in CPD that includes:

- attendance at at least one scientific meeting or refresher course specific to mammography every two years
- attendance at multidisciplinary review and audit meetings
- reviewing current journals and material on relevant radiological websites.

8.18.5 Every radiologist involved in the screening programme must read a minimum of 2000 screening mammograms within the provider region each year.

8.18.6 An individual radiologist's reading statistics must fall within 95% confidence intervals for rates of cancer detection and detection of small cancers (Criteria 4.5, 4.6 and 4.7) (refer to Appendix Y: Funnel Plots). Where an individual fails to meet these criteria, the Clinical Director will ensure strategies for improving performance are implemented.

8.18.7 BSA radiologists must:

- obtain feedback (including pathology) on at least 80% of individual cases that have resulted in recall to assessment
- attend at least 15 meetings or 60% (whichever is the greater) of clinical multidisciplinary review meetings, using video conferencing if necessary
- participate in the programme's interval cancer review and other audit sessions.

Radiologists who perform ultrasound, biopsy and localisation techniques at an assessment clinic must be competent at these procedures. To achieve this it is recommended that these radiologists have a regular weekly commitment to breast imaging, which may include diagnostic, screening, assessment clinic and audit sessions.

BSA radiologists must also read screening mammograms and participate in assessment clinics. It is recognised that this may be difficult to achieve while still allowing assessment clinic radiologists to develop and maintain sufficient expertise. For this reason it is desirable for screening radiologists to be performing assessment in diagnostic clinics outside the programme.

BSA radiologists must continuously monitor the technical quality of mammograms and provide constructive feedback to the lead MRT. This is particularly important in situations where MRTs do not have direct contact with the radiologist who reports the images.

8.18.8 Radiologists must attend regular radiology review sessions to allow:

- interval cancer review and internal classification
- review of reading or assessment procedures and protocols
- review of literature
- review of interesting cases or third reads.

8.18.9 All BSA radiologists must complete a minimum of eight hours' training in digital mammography. Education for radiologists in digital mammography consists of the following.

- Supervised reading of digital mammography images must be performed with an experienced radiologist at a digital mammography accredited site.
- Digital images will ideally be viewed on a workstation identical to the one the radiologist will be using at his/her own site.
- Sufficient time should be spent at the workstation so that the radiologist is comfortable with altering windowing, levelling, zoom and inversion presets as necessary to optimally visualise calcifications or subtle asymmetries.

Education should also include:

- a minimum reading of 200 digital mammograms, including reading the BSA cancer seeded set
- digital mammography theory, including quality control for digital mammography such as vendor-specific quality control

For a new screen reader, digital mammography training should be a minimum of eight hours' duration, with at least six hours devoted to screen reading and the seeded set.

8.18.10 It is desirable for radiology registrars to rotate through a breast screening unit, and trainees may participate in BSA under supervision from a BSA radiologist, with:

- time spent in the screening unit divided between reading screening mammograms and assessment
- direct supervision for any procedure conducted within the programme
- trainees performing dummy reads – these reads should not influence outcomes for women.

8.18.11 The screening unit's data management system must allow regular monitoring of an individual radiologist's performance and feedback of information. At a minimum this will include the number of screening mammograms read, the total referral rate, and small invasive cancer and overall cancer detection rates. This information must be provided every six months, will be cumulative and must include performance criteria for assessment. Individual performance data must be confidential to the individual reader and to the Clinical Director, but will be available for scrutiny by the visiting BSA radiologist auditor.

Criterion 8.19: Each provider has staff who are employed to undertake the role of recruitment and retention

Elements

8.19.1 All recruitment and retention staff employed or subcontracted in the programme must be able to demonstrate a good understanding of the theory and practice of public health approaches.

8.19.2 Recruitment and retention staff employed in the programme will:

- advocate for community and individual understanding of screening at all levels
- promote an understanding of the need for, and the adoption of, community health development practices based on the Treaty of Waitangi and other health promotion models
- demonstrate the full range of knowledge and skills required for competent practice
- demonstrate accountability and effectiveness to a range of stakeholders
- model and support consultative ways of working with other key public health principles.

8.19.3 The provider ensures that recruitment and retention staff demonstrate competencies relevant to their role outlined in:

- *Nga Kaiakatanga Hauora mo Aotearoa: Health Promotion Competencies for Aotearoa–New Zealand*
- National Screening Unit competencies, including cultural competencies
- Ministry of Health public health competencies.

8.19.4 The provider ensures that recruitment and retention staff have a professional development plan and are supported in continuing education which:

- promotes and demonstrates sound public health principles and practice
- demonstrates an understanding of practice management systems and the primary care environment
- maintains professional knowledge and skills relating to breast cancer and screening in addition to health promotion
- develops and maintains cultural knowledge and skills
- identifies, develops and maintains community and professional networks
- involves critically reflecting on and evaluating their own work
- involves participation in peer review processes.

8.19.5 The provider must ensure there is access to accurate and current information to allow staff to fulfil their role.

8.19.6 Recruitment and retention staff in a leadership role:

- actively develop the recruitment and retention workforce
- demonstrate strategic leadership
- facilitate strategic regional coordination planning, including writing, implementing and evaluating recruitment and retention activities
- contribute to organisational decisions that promote public health practice
- facilitate robust critical debate and reflection on recruitment and retention activities
- access and provide opportunities for quality training for staff
- develop and implement quality assurance and quality improvement strategies.

8.19.7 Staff in training must:

- become familiar with the BSA resources, and develop a comprehensive understanding of the screening pathway and the range of health professional roles in the programme
- undertake an individualised orientation programme with the guidance of an experienced team member to observe and participate as their skills develop
- present health education sessions under guidance and supervision until deemed competent by an experienced team member.

Criterion 8.20: Each provider has qualified surgeons

Elements

8.20.1 The role of the surgeon commences during the assessment phase and continues through treatment and follow-up.

8.20.2 It is expected that surgeons in the programme will be closely involved with the assessment and surgical aspects of the diagnosis of and therapy for cancers detected. In addition, the surgeon will contribute to setting standards, and to audit and administrative aspects of the programme, as required.

8.20.3 BSA surgeons:

- have registration to practise in New Zealand with a current annual practising certificate
- hold a qualification in general surgery and are vocationally registered in general surgery with the Medical Council of New Zealand.
- participate in a re-certification programme in general surgery by their own college
- are credentialed to an accredited hospital
- are a member of Breast Surgeons of Australia and New Zealand (BSANZ);

Where a surgeon has an overseas qualification, accreditation will be considered on a case-by-case basis by the Surgeons Unidisciplinary Group and BSA clinical leader.

8.20.4 A surgeon in the programme, in addition to training and experience in general surgery should have specialist surgical expertise and a major interest in breast cancer management. Surgeons ensure they have acquired the necessary skills in the management of screen detected lesions by attending approved multidisciplinary training activities, such as those organised by the Royal Australasian College of Surgeons (RACS) and by spending time in a breast screening unit.

8.20.5 All surgeons must enter all cases of breast cancer into BSANZ audit.

8.20.6 BSA surgeons should maintain an ongoing level of specialist expertise in diagnosis and management of screen detected breast lesions and must meet the BSANZ requirements, which are:

- full participation in the BSANZ audit, with information on entered cases assessed against the RACS average for a number of clinical indicators – the clinical indicators will be determined and reviewed by the executive of the section after consideration by an accreditation sub-committee
- meeting audit and CPD criteria as for full membership of BSANZ – the CPD requirements include an ongoing commitment to CPD activities in breast disease.

Each year breast screening surgeons will be asked to complete three questions that specifically relate to breast disease. These questions will be included in the annual RACS CPD form distributed by the College. This form is to be made available to surgeons who are not fellows of the RACS for a fee. The questions will relate to:

- attendance at significant breast-related CPD meetings (eg, BSANZ lectures, ANZ Breast Cancer Trials Group Meetings, international breast meetings)
- attendance at specific breast related multidisciplinary meetings (including hospital meetings, BSA and private breast clinics)

- reading of journal articles related to breast disease or computer-based and/or distance learning
- attendance at 20 screening and/or symptomatic breast multidisciplinary meetings each year, which must include at least 10 screening meetings.

8.20.7 Surgical trainees may participate in BSA under supervision from an established BSA surgeon.

8.20.8 BSA surgeons are subject to regular peer review at the multidisciplinary meetings.

8.20.9 BSA surgeons receive regular reports on their compliance with programme quality targets and requirements.

8.20.10 BSA surgeons should receive all quality assurance monitoring reports on the breast screening programme and should participate in regular meetings to review these reports and programme performance in general.

8.20.11 It is expected that BSA surgeons will:

- participate in a regular multidisciplinary audit of quality assurance outcomes and morbidity data, including review of records for those women with interval cancers
- participate in the training of staff involved with the screening programme.

8.20.12 Any new surgical technologies or treatment procedures to be used in consultation for women in BSA should meet at least one of the following criteria:

- is being used in accordance with BSANZ policy
- is being evaluated under the appropriate assessment process for New Zealand (for example, ASERNIPS)
- has ethics committee approval, or is part of research protocol.

Any new or innovative mode of treatment funded by BSA must be approved by BSA, or by any national body established with ethical approval, or by the local ethical committee.