**X-ray Operator Services**

1. **Purpose**
This Guideline provides recommendations regarding best practice for a standardised approach to the provision of a safe and effective X-ray operator service.

2. **Scope**
This Guideline provides information for all Queensland Health employees involved in the provision of medical imaging services delivered by X-ray operators (XOs) in rural and remote areas.

3. **Related documents**
- *Radiation Safety Act 1999*
- *Radiation Safety Regulation 2010*
- On Call Practices – Rural and Remote Medical Imaging Radiographers policy B63 (QH-POL-182)
- Allowances Policy C15 (QH-POL-099)
- Facility specific Radiation Safety and Protection Plan
- Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (2008)
- Clinical Services Capability Framework for public and licensed private health facilities version 3.0 (CSCF v3)

**Forms and templates:**
- Expression of Interest (EOI) memorandum
- XO supervision agreement
- Use licence support letter - template

4. **Requirements**
- Appointment of XOs shall occur in rural and remote facilities to ensure community access to a limited X-ray service.
XOs shall have access to appropriate training and support

Ongoing support and supervision of XOs shall be provided by a nominated Radiographic Advisor. All XOs shall hold a supervision agreement.

XO services shall comply with relevant Queensland law and legislation

XOs employed by Queensland Health shall hold a use licence as prescribed in the *Radiation Safety Act 1999*

Facility managers, and radiation safety officers (RSO), shall ensure all authorised persons are aware of, and comply with the licence restrictions imposed on the XO staff at their facility

Facility managers, and RSOs, shall ensure compliance with the Hospital and Health Service (HHS) Radiation Safety and Protection Plan (RSPP)

The medical imaging equipment used in QH facilities is modern and well maintained, and when combined with appropriate staff support and telecommunication networks, this enables the requirements within this guideline to be met

### 4.1 Workload demand

- Facility managers shall assess the XO service needs annually. This assessment should consider:
  - workload levels necessary to maintain staff competency *
  - community access to a medical imaging service
  - staff levels sufficient for workload demand *
  - appropriate access to a radiographic advisor (RA)
  - adequate resources to cover ongoing staff training requirements
  - need to employ a radiographer should the workload demand warrant it

* **Note:** Staff levels and competency relate to workload demand due to the links between frequency of practice and competence. As an individual’s workload reduces the need for training and support increases

### 4.2 Candidate selection

- An RA shall be appointed to take on radiographic supervision and support of additional XO positions

- Facility managers, in consultation with the appointed RA, shall select appropriate XO candidates

- Candidates shall be identified by an expression of interest (EOI) process (see appendix 1), with the evaluation for additional XOs taking into account the criteria in 4.1 above
Appointment of new XOs shall be made by the facility manager, in consultation with the HHS Director of Medical Imaging (DDMI). This applies to new trainees and any previously trained XOs that may be new to the facility

Facility managers shall notify the RAs and RSOs responsible for the facility, of the appointment or employment of staff that hold a use licence or trainee use licence prior to the commencement of their XO duties

If the candidate is not a registered medical practitioner, registered nurse or an enrolled nurse, new licence applications shall be accompanied by a letter of support from the HHS Chief Executive Officer (CEO) justifying the selection of the person to fulfil the role

### 4.3 Initial Training

- An RA or designated radiographer shall be available for supervision, mentorship and training of XOs at all times
- While on a trainee licence, periodic evaluation of performance shall be conducted by the RA to ensure continued progress of licensee’s skill and safety, and shall form part of the supervision agreement
- All XOs shall successfully complete an endorsed course on basic radiographic technique prior to application for a trainee use licence
- The course shall be immediately followed by intensive, practical face-to-face supervision. The face-to-face supervision shall be carried out at an agreed location with a suitable workload and shall be for a minimum of 4 days in total
- Additional training shall be at the discretion of the RA and included in the supervision agreement
- All radiographic images taken shall be assessed by the RA and regular feedback given to the XO as outlined in the supervision agreement
- All XOs shall comply with the Queensland Health X-ray Operator Radiographic Guidelines or local HHS version. Any changes (such as additional or modified views) shall be discussed with the supervising radiographer.

### 4.4 Supervision Agreement

- A supervision agreement shall be entered into between the XO and RA. This shall be valid for 12 months (see appendix 2)
- The contents of this agreement shall be endorsed by the XO’s facility manager. Copies of the signed agreement shall be held by the XO and RA.
- XOs shall hold a record of the supervision, support and training received, as evidence to support licence renewal
4.5 Ongoing Radiographic Advice and Training

- All XOs shall know the name and contact details of their appointed RA for the provision of mentorship, advice and training. An alternative radiographer’s contact details shall be provided to ensure that support is available at all times.
- Some facilities will rely on a group of radiographers to provide radiographic support and advice. Such situations shall still require the identification of a single radiographer to be assigned as radiographic advisor to the XO.
- XOs shall have regular access to telecommunication resources to meet service requirements e.g. computer, telephone, GroupWise email and internet.
- Each XO shall have access of up to 38 hours paid time per year to receive actual training for skill maintenance in relation to X-ray operator services. This shall consist of a minimum of 2 days face to face training with the RA at an agreed location with suitable workload (CSCF v3). Travel times are not to be included in this allocation.
- XO duties and training shall be deemed core operations and not to be considered professional development.
- Training times are not to be considered on a pro rata basis for part-time or casual staff.
- Regular assessment of XO images shall be conducted by the RA and feedback given to the XO as outlined in the supervision agreement.

4.6 Assessment

- X-ray operator use licences are issued for a 1 year period.
- A ‘certificate of competency’ is required for licence renewal.
- Assessment and issue of ‘certificates of competency’ shall be conducted by endorsed radiographers.
- Assessors who are independent of routine XO supervision should conduct licence assessment.
- Assessments shall be performed face to face or similar i.e. video conference.

4.7 On Call Practices

- On call practices are outlined fully in the Human Resources policy On Call Practices – Rural and Remote Medical Imaging Radiographers - B63. The following relate directly to XO services.
  - A radiographer and XO shall not be on call simultaneously for the provision of medical imaging services at a facility.
To enable radiographers to be off all forms of call; use of other QH facilities with 24 hour medical imaging services with on-site radiographers or other on call radiographers should be used for XO support and supervision.

5. Review

This Guideline is due for review on: 01 July 2016

Date of Last Review: N/A

Supersedes: X-ray Operator Services Policy (QH-POL-363) and Implementation Standard (QH-IMP-363-1)

6. Business Area Contact

Chief Allied Health Officer

7. Definitions of terms used in the policy and supporting documents

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition / Explanation / Details</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate of Competency</td>
<td>Document required for licence application. It provides evidence of the certification of practical skill competence.</td>
<td>Radiation Health</td>
</tr>
<tr>
<td>Clinical Services Capability Framework (CSCF v3)</td>
<td>The Clinical Services Capability Framework for public and licensed private health facilities (or CSCF) serves to provide a standard set of capability requirements for most acute and sub-acute health facility services provided in Queensland by public and private health facilities. Also it provides a consistent language for health care providers and planners to use when describing health services and planning service developments.</td>
<td>Queensland Health Clinical Services Capability Framework for Public and Licensed Private Health Facilities version 3.0 – Medical Imaging Services <a href="http://www.health.qld.gov.au/cscf/docs/6_medicalimaging.pdf">http://www.health.qld.gov.au/cscf/docs/6_medicalimaging.pdf</a></td>
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<tr>
<td>Competency</td>
<td>Is a knowledge or skill which is performed to a specific standard under specific conditions. <strong>In terms of x-ray operators:</strong> Competency is the specific standard in which radiographic knowledge or skill is demonstrated to meet the requirements for a use licence issued under the Radiation Safety Act.</td>
<td>Richard S. Sullivan <a href="http://www.reproline.jhu.edu/english/6read/6training/cbt/sp601web.pdf">http://www.reproline.jhu.edu/english/6read/6training/cbt/sp601web.pdf</a></td>
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<tr>
<td>Designated radiographer</td>
<td>A licensed diagnostic radiographer who provides support, training or advice to an XO on behalf of their regular radiographic advisor.</td>
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<td>District Director of Medical Imaging (DDMI)</td>
<td>Director responsible for the medical imaging services within the health service district. In the absence of a DDMI, the senior radiographer assumes the DDMI responsibilities for the purposes of this policy.</td>
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<tr>
<td>Endorsed</td>
<td>A course which has been assessed and approved by the Radiation Health Unit</td>
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<td>course</td>
<td>Radiation Health Unit.</td>
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<tr>
<td>Endorsed radiographer</td>
<td>A licensed diagnostic radiographer approved by the Director of Radiation Health to assess knowledge or practical skill competencies. To become endorsed the radiographer must be licensed, registered and hold a Certificate IV in Training and Assessment and apply directly to the Director of Radiation Health.</td>
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<tr>
<td>Image assessment form</td>
<td>Form used by radiographic advisor to provide feedback on XO imaging performance.</td>
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<td>Facility manager</td>
<td>The person in the position responsible for the management of operational and clinical services at the QH facility.</td>
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<td>Frequency of practice</td>
<td>A term used to describe the number of times and the time lapsed between when a task is performed. It directly relates to the competence level at which that task will be performed.</td>
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<td>Mentorship</td>
<td>A less formal relationship between mentor and mentee which commonly occurs as part of formal supervision. It involves a radiographic advisor as mentor and x-ray operator as mentee. This long term working relationship is for the exchange of ideas, advice, and feedback. The mentor imparts knowledge, skills and attitudes necessary for radiography, as well as assisting the mentee to assess their own strengths and weaknesses in medical imaging activities.</td>
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<td>Primary employment</td>
<td>XO staff have another role within QH other than their imaging role. This other role is deemed to be their primary employment as it is performed more regularly than their XO duties.</td>
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<tr>
<td>Radiation safety and protection plan (RSPP)</td>
<td>A Health Service District plan for the practice for which a possession licensee is allowed to possess a radiation source under the licence.</td>
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</table>
| Radiation safety officer (RSO) | Under the Radiation Safety Act 1999 a possession licensee must ensure, whenever a practice is being carried out, that a person has been appointed as, and is performing the functions of, a radiation safety officer for the practice. A radiation safety officer is an individual who has:  
  - a working knowledge of the legislation, guidelines, codes of practice and standards  
  - knowledge and skills in measuring and monitoring radiation and interpreting radiation measurements  
  - knowledge and skills in applying radiation safety and protection principles |

Radiation Health

Further reading:

- [http://www.sla.org/pdfs/mentorsh.pdf](http://www.sla.org/pdfs/mentorsh.pdf)

LO framework report


Queensland Parliament


Radiation Health

| **Statement of Attainment** | Document required for trainee licence application. It provides evidence of theoretical knowledge attainment. | Radiation Health |
| **Statewide Medical Imaging Support Services (SMISS)** | Statewide Medical Imaging Support Services is one of the services supported by Radiology Support. Radiology Support is one of the seven branches of Clinical and Statewide Services. SMISS provides medical imaging support services to all Queensland public hospitals. | Radiology Support [http://qheps.health.qld.gov.au/cass_radiology/about_us/smiss/smiss.htm](http://qheps.health.qld.gov.au/cass_radiology/about_us/smiss/smiss.htm) |
| **Supervision** | It is broadly defined as a working alliance between two staff members where the primary intention of the interaction is to enhance the knowledge, skills and attitudes of at least one staff member. In this instance it focuses primarily on practice issues, rather than broader supervision, staff development and/or line management issues. Face-to-face supervision is the preferred method of delivery wherever possible and a component of supervision should remain face-to-face. However the geographical dispersion of staff throughout the state implies that supervision by e-mail, videoconferencing or teleconferencing has an important place in ensuring access to supervisors, especially in providing urgent access in crises. | Practice Supervision in Allied Mental Health Policy [HR policy G5](http://www.health.qld.gov.au/qhpolicy/docs/pol/qh-pol-192.pdf) |
| **Supervision agreement** | A written agreed statement of mutual understanding about the schedule of XO supervision and training that shall be provided. The contents are to be agreed on by the XO, RA and XO’s facility manager. Agreements are subject to unforeseen circumstances (e.g. changes in workload, duties or workplace location) and are to be renegotiated annually. | Practice Supervision in Allied Mental Health Policy [HR policy G5](http://www.health.qld.gov.au/qhpolicy/docs/pol/qh-pol-192.pdf) |
| **Trainee use licence** | A licence type issued under the Radiation Safety Act on demonstration to the chief executive that the applicant has the knowledge of diagnostic radiography applicable to their licence scope. This licence allows the licensee to partake in practical training without the need for the presence, and personal supervision, of a use licensee. | Radiation Health [http://www.health.qld.gov.au/radiationhealth/documents/c_ecompetencies.pdf](http://www.health.qld.gov.au/radiationhealth/documents/c_ecompetencies.pdf) |
X-ray operator (XO) (previously known as licensed operator or LO)

Persons who are permitted to use plain film diagnostic x-ray equipment to perform a limited range of plain film diagnostic radiography, but who do not have formal qualifications in diagnostic radiography. Also known as licensed operator

8. Approval and Implementation

Policy Custodian:
Chief Allied Health Officer

Approving Officer:
Dr Michael Cleary, Deputy Director-General, Health Service and Clinical Innovation Division

Approval date: 19 June 2013
Effective from: 01 July 2013
Applications are invited from all permanent staff interested in undertaking training to become an x-ray operator.

**Requirements for becoming an x-ray operator include:**

- Interest in x-ray services
- Demonstrate willingness and ability to learn new skills
- Ability to be released from primary QH duties
- Adherence to the training program, including reading of relevant information: training manuals and books
- Ability to participant in on call duties as and when required. Expected Frequency of on call duties: _______
- An intention to remain at the facility for a minimum of twelve months service after obtaining a full x-ray operator licence
- Willingness to update skills by the attendance of workshops, seminars and additional reading etc
Maintain a current use licence

Applications should include a two page word document addressing each of the above requirements.

**Conditions:**

- The applicant will undergo annual competency assessment – a requirement for licence renewal
- Ensure their actions are not in breach of the Radiation Safety Act 1999 nor Radiation Safety Regulation 2010.
- Successful applicants will be given access to telecommunication resources such as email, phone and internet to maintain their skills and knowledge in x-ray services
- Applications will be accepted from registered medical practitioners, registered nurses and enrolled nurses
- Applications from other health sector employees including non-patient related areas will be considered

If you would like to extend your involvement in patient care and contribute to the x-ray service provision at this facility, please submit your expression of interest in writing by (insert date).

A short list of candidates will be interviewed.

For further information please contact (include details below).

**Facility Manager**

/ / 

**Radiographic Advisor**

/ /
Appendix 2

X-ray Operator Supervision Agreement

From    /   /   to    /   /   (maximum 12 months)

Learning Objectives:
These objectives should be identified through discussion and image review between the radiographic advisor (RA) and X-ray operator (XO). These objectives should have a tendency toward improving image quality and patient outcomes.

1. 

2. 

3. 

4. 

Add another sheet if further objectives identified

Examination supervision:
Please tick areas of anatomy (within current licence) which must be performed with immediate prior contact with RA ie those exams that the XO must call the RA prior to conducting exam

- Chest
- Cervical spine (Lat)
- Shoulder
- Humerus
- Elbow
- Forearm
- Wrist
- Hand/Finger
- Abdomen
- Pelvis/Hip
- Femur
- Knee
- Tibia/Fibula
- Ankle
- Foot/Toes
Communication Structure:
Frequency – (List the planned dates of contact between XO and RA. This must be at least quarterly)

Duration –

Method of Contact – (ie face to face; telephone; video conference)

Image Assessment:
Frequency – (How often will image assessment be conducted?)

Method of Feedback – (ie face to face; telephone; email)

Participants Agreement:
I agree to the parameters of the above supervision agreement. I agree that the time utilised as part of this agreement will be additionally documented and signed as evidence of supervision and training in X-ray operator duties.

X-ray operator name: ______________________________
Signature: ________________________________________
Date: ______________________

Radiographic advisor name: ___________________________
Signature: _________________________________________
Date: _____________________

Facility manager name: ______________________________
Signature: ________________________________________
Date: ____________________________________________