

Practice guidance document

Justification and Approval of Medical Radiation Procedures

Version: SEPTEMBER 2015



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Radiation Procedures

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Introduction

The Victorian *Radiation Act 2005* (Act) has the objective of protecting the health and safety of persons and the environment from the harmful effects of radiation. The Department of Health and Human Services (Department) administers the Act (refer to <http://www.health.vic.gov.au/radiation/index.htm> for further details).

One of the ways in which the Act seeks to fulfil this objective is by establishing a licensing framework to regulate the conduct of radiation practices and the use of radiation sources.

In the medical sector, one of the primary conditions placed on licences authorising possession and use of radiation sources for diagnostic or therapeutic purposes is compliance with the *Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (2008)* (Code) as published by the Australian Radiation Protection and Nuclear Safety Agency. A copy of the Code can be obtained from: <http://www.arpsa.gov.au/pubs/rps/rps14.pdf>

The purpose of the Code is to establish the roles and responsibilities of:

- the **Responsible Person (Management Licence holder)**, being the person who has the overall management responsibility of the radiation source or radiation practice;
- the **Radiation Medical Practitioner¹**, being the person responsible for the justification and optimisation of the medical procedure involving the exposure of the patient to ionising radiation, either for each individual patient or by way of protocols specific for the procedure. In nuclear medicine, this person will normally be a nuclear medicine specialist, in radiation oncology, this person will normally be a radiation oncologist and in diagnostic or interventional radiology, this person will usually be a radiologist, but might also be, for example, a cardiologist;
- the **Operator (Use Licence holder)** who exposes the patient to ionising radiation; and

to establish the regulatory requirements for the use of radiation sources in medicine that will, in the context of good practice, ensure that the risks associated with radiation exposure to the patient are optimised and those to staff and other persons are as low as reasonably achievable. The Code applies the following three fundamental processes to radiation protection in the medicine sector: **justification, optimisation and dose limitation**.

The aim of this practice guidance document is to provide guidance and to set out the expectations of the Victorian regulator with respect to the requirement for justification and approval of radiation procedures, as required by the Code.

Scope

This practice guidance document applies to medical diagnostic and interventional procedures involving exposure of patients to ionising radiation (hereafter referred to as radiation procedures).

¹ The Management Licence holder is responsible for ensuring that the Radiation Medical Practitioner complies with section 3.2 of the Code.

Justification

The process of justification can be stated as follows:

No practice involving exposures to radiation should be adopted unless it produces sufficient benefit to the exposed individuals or to society to offset the radiation detriment it causes.

The **benefit** is the potential diagnostic information resulting from the medical exposure.

The **detriment** is the harm caused by exposure to ionising radiation, although other health detriments should also be considered when deciding on a particular examination. For example, a particular procedure might involve a higher radiation dose to a patient but the non-radiation related risk from performing that procedure could be lower than an alternate procedure with lower radiation dose.

Radiation exposure from diagnostic imaging has the potential to cause detriments of a **stochastic** nature such as cancer in the exposed individual.

The probability of stochastic detriment occurring is determined by:

- the age of the patient;
- the anatomical region being exposed; and
- the size of the radiation dose.

The risk of radiation-induced cancer, for radiation protection purposes, is taken to be approximately 1 in 5,800 per millisievert (mSv) of effective dose for the population as a whole.²

Table 1: Typical doses from diagnostic computed tomography procedures.

| Medical radiation procedure | Effective dose ³ |
|-----------------------------|-----------------------------|
| CT head | 2 mSv |
| CT chest | 6 mSv |
| CT abdomen and pelvis | 10 mSv |

For further information regarding radiation doses resulting from specific radiation procedures please refer to:

Radiological Procedures: Annex A of the [Safety Guide for Radiation Protection in Diagnostic and Interventional Radiology \(2008\)](#).

Nuclear Medicine procedure - Radiation does to the uterus and embryo/fetus: Section 5.2 of the [Safety Guide for Radiation Protection in Nuclear Medicine \(2008\)](#).

Health Physics Society - Doses from Medical Radiation Sources:
<http://hps.org/hpspublications/articles/dosesfrommedicalradiation.html>

For interventional radiology procedures and therapeutic procedures, an additional concern relates to possible **deterministic effects** or harmful tissue reactions. The severity of deterministic effects increases with increasing dose, usually with a threshold below which they do not occur. For further information regarding harmful tissue reactions please refer to ICRP Publication 118 at:

<http://www.icrp.org/publication.asp?id=ICRP%20Publication%20118>

² ICRP, 2007. The 2007 Recommendations of the International Commission on Radiological Protection. ICRP Publication 103. Ann. ICRP 37 (2-4).

³ The effective doses are typical values for an average-sized adult. The actual dose can vary substantially, depending on a person's size as well as on differences in imaging practices.

Clause 3.1.3 (a) of the Code requires the management licence holder to have protocols in place to ensure that no radiation procedure is carried out unless it has been justified, either **generically** or on an **individual basis** by the Radiation Medical Practitioner, in accordance with clause 3.2.2 of the Code depending on the nature of the procedure and the patient.

A flow chart showing key features of the two processes by which a radiation procedure can be justified is shown in Appendix A. The flow chart also captures approval of radiation procedures which is covered in the next section.

In determining the net benefit from a radiation procedure, the Radiation Medical Practitioner must take into account:

- a) the specific objectives of the procedure;
- b) the characteristics of the individual patient involved;
- c) the total potential clinical benefits, including the direct health benefits to the patient and, where relevant, the benefits to society in general;
- d) the individual **detriment** to the patient that may result from the procedure;
- e) the pregnancy status of a female patient of child bearing capacity;
- f) the breast-feeding status of the female patient to be administered a radiopharmaceutical if there is the potential for a radiation dose of more than 1 mSv to a breast-fed child;
- g) the efficacy, benefits and risk of available alternate techniques having the same objectives with less or no exposure to ionising radiation; and
- h) any medical data and patient records relevant to the medical exposure.

Generic justification

A generically justified radiation procedure is a defined procedure that has been justified in general by the Radiation Medical Practitioner in accordance with clause 3.2.2 of the Code for patients with specific set of clinical indications. In order to ensure that the outcome required by clause 3.2.2 of the Code is achieved, the Radiation Medical Practitioner, in establishing a generically justified radiation procedure, must specify:

1. the clinical indications for which the procedure is justified;
2. the clinical questions that can be answered by the procedure; and
3. contraindications specific to the procedure.

The application of a generically justified radiation procedure to a patient is **not** justified unless it is established that:

1. the patient has the clinical indications for which the procedure has been justified;
2. the clinical question being asked by the referring physician can be answered by the procedure; and
3. the patient has no contraindications specific to the procedure.

The clinical indications specified with respect to a radiation procedure must be specific enough to exclude a patient for which the application of the radiation procedure would not be justified.

For example, a CT scan of the brain may be justified for a patient with unexplained chronic headache where there is suspected intracranial pathology, particularly where an MRI (magnetic resonance imaging) is not available. However, the same procedure would not be justified for a patient with a mild headache where no pathology is suspected⁴. In this example, "headache" as a clinical indication would not be specific enough to prevent an unjustified procedure from being undertaken. An example of a generically justified radiation procedure has been provided in Appendix B.

⁴ Serious intracranial pathology is a relatively infrequent cause of headaches (Manzoni GC, Stovner LJ. Epidemiology of headache. *Handb Clin Neurol.* 2010;97:3-22)

Justification on an individual basis

A radiation procedure is justified on an individual basis when it is determined by the Radiation Medical Practitioner that the radiation exposure will produce sufficient benefit to the exposed individual to offset the risk associated with the radiation exposure. In determining the net benefit from a radiation procedure, the Radiation Medical Practitioner must take into account clause 3.2.2 of the Code.

The decision to perform a diagnostic or interventional procedure rests upon a professional judgement of the total health benefit to the patient, as opposed to only the biological effects that the ionising radiation might cause.

Accordingly, the Radiation Medical Practitioner may need to liaise closely with the referrer about the merit of performing a particular examination. Any decision regarding whether or not to proceed should be made after consideration of the availability of alternative tests, which involve less or no exposure to ionising radiation. This consideration is particularly pertinent when the irradiation of a pregnant woman is being contemplated. The Radiation Medical Practitioner must therefore weigh the implications of delaying a diagnosis in order to use the preferred test method against the potential detriment associated with the increased radiation burden to the patient that would arise from a test involving ionising radiation.

As part of the justification process the Radiation Medical Practitioner should:

1. communicate directly with the referrer to seek clarification if the referral:
 - a) is inappropriate;
 - b) is ambiguous; or
 - c) would lead to a radiation exposure that does not answer the clinical question being posed;
2. where it is clinically appropriate, and in consultation with the referrer:
 - a) substitute other imaging tests that do not use ionising radiation;
 - b) modify the examination; or
 - c) cancel the examination altogether;
3. limit the procedure scope (e.g. by restricting areas to be scanned or the number of phases to answer only the clinical question); and
4. communicate the decisions about the choice of examination and the outcomes of the imaging workup to the referrer.

Where the application of a generically justified radiation procedure results in a procedure not being justified for an individual because of a contraindication, the radiation procedure may still be justified on an individual basis by the Radiation Medical Practitioner, particularly where the radiation procedure results in a benefit to the individual which was not considered as part of the generic justification of the radiation procedure.

How does the licence holder demonstrate compliance with clause 3.1.3 (a) of the Code – justification of a radiation procedure?

Compliance with clause 3.1.3 (a) of the Code can be demonstrated by having documented **protocols** which ensure that no radiation procedure is carried out unless the procedure has been justified, either **generically** or on an **individual basis** by the Radiation Medical Practitioner, in accordance with clause 3.2.2 of the Code.

Where medical radiation procedures are **generically justified**, the **protocols**⁵ must:

1. specify all procedures that have been generically justified by the Radiation Medical Practitioner. Specify for each procedure the clinical indications on which the justification is based, contraindications for the procedure and the clinical questions that can be answered by the procedure. There must be evidence (e.g. signature) that the generically justified procedures have been approved by the Radiation Medical Practitioner;
2. specify the procedure for assessing whether or not the application of a generically justified procedure on an individual is appropriate (refer to Generic Justification section of this document for further details); and
3. administratively and/or physically prevent a person from carrying out a medical radiation procedure unless it has been determined in accordance with item 2 above that the application of the radiation procedure on an individual is justified. Depending on the type of controls employed (refer to Appendix C for an example of a referral form which allows justification to be documented), this process may require the outcome of each assessment of justification to be documented. This documentation would be particularly relevant when the assessment of justification is conducted by a person other than the Operator.

Where radiation procedures are **justified on an individual basis**, the **protocols** must:

1. ensure that radiation procedure referrals undergo an assessment by the Radiation Medical Practitioner to determine whether or not the procedures are justified on an individual basis, in accordance with clause 3.2.2 of the Code.
2. administratively and/or physically prevent a person from carrying out a radiation procedure unless it has been justified by the Radiation Medical Practitioner. This process may require the outcome of each assessment of justification to be documented (refer to Appendix C for an example of a referral form which allows justification to be documented).

It is strongly recommended that the justification protocols be supported by standard operating procedures and policies that:

1. provide guidance on the roles and responsibilities of the Radiation Medical Practitioner and the Operator in relation to justification of radiation procedures;
2. specify actions to be taken in the event that the clinical notes on the referral are not legible or are insufficient to make an assessment of whether or not a radiation procedure is justified;
3. specify a process for dealing with referrals that are outside the scope of generic justification i.e. the referral is for a medical radiation procedure that has not been generically justified;
4. specify a process for dealing with a referral for a radiation procedure that is not justified; and
5. specify a process for regular review of the justification protocols.

A self-assessment checklist is provided in Appendix D to assist licence holders in the development of protocols for the justification of radiation procedures.

⁵ A protocol can be in the form of an electronic system, procedures and policies.

Approval

Clause 3.1.3 (b) of the Code requires the management licence holder to have protocols in place to ensure **that no medical radiation procedure is carried out unless it has been approved for each individual** by the Radiation Medical Practitioner or the Operator in accordance with written guidelines established by the Radiation Medical Practitioner. The approval of a radiation procedure must comply with the relevant clauses of section 3.2 of the Code.

For every medical radiation procedure that is approved, the approval must be documented in such a way as to ensure a record is kept of:

- The individual person who has approved the procedure.
- The procedure that has been approved.
- The date the approval was given.

This documentation may be electronic or written, but must be readily accessible, reviewable and kept securely as part of the patient record.

Where the operator identifies that a radiation procedure may require repeating, (e.g. a CT acquisition is identified to be suboptimal or a nuclear medicine injection is identified to be subcutaneous), the justification and approval for this repeat procedure must be documented separately.

The department recommends that repeat radiation procedures should be individually justified, approved and optimised by the radiation medical practitioner.

A flow chart showing key features of the two processes by which a radiation procedure can be approved is shown in Appendix A.

Approval by the Radiation Medical Practitioner

In approving a diagnostic or interventional radiation procedure, clause 3.2.4 of the Code requires the Radiation Medical Practitioner to specify the procedure to be performed or have provided generic written guidelines for the radiation procedure. When specifying the radiation procedure to be performed, or providing generic written guidelines for the radiation procedure, the Radiation Medical Practitioner must provide in writing the exposure protocol for the procedure including where necessary information pertaining to patient position, contrast media, quality indicators, DICOM and PACS information that must be retained.

Appendix B shows the details of a generally justified radiation procedure which includes information pertaining to patient position, contrast media, quality indicators, DICOM and PACS information that is required to be specified as part of approval of a radiation procedure.

Approval by the Operator

In order to enable the Operator to approve a radiation procedure there must be written guidelines established for the approval of radiation procedures by the Radiation Medical Practitioner. The approval guidelines must ensure that no radiation procedure is approved unless the radiation procedure has been:

1. **justified** in accordance with clause 3.2.2 of the Code;
2. **optimised**⁶ in accordance with clause 3.2.5 of the Code; and
3. the outcomes required under clauses 3.2.3 and 3.2.4 of the Code are achieved.

⁶ Although optimisation is mandatory it is not covered by this practice guidance document.

How does the licence holder demonstrate compliance with respect to clause 3.1.3 (b) of the Code – approval of a radiation procedure?

Compliance with clause 3.1.3 (b) of the Code can be demonstrated by having written **protocols** in place to ensure that no radiation procedure is carried out unless the procedure has been approved by the Radiation Medical Practitioner or the Operator in accordance with written guidelines established by the Radiation Medical Practitioner.

Where radiation procedures are **approved** by the **Operator** in accordance with guidelines established by the Radiation Medical Practitioner, the protocols must:

1. specify guidelines established by the Radiation Medical Practitioner for the approval of medical radiation procedures. The approval guidelines must ensure that the requirements of section 3.2 of the Code are satisfied. There must be evidence (e.g. signature) that the approval guidelines have been established or approved by the Radiation Medical Practitioner; and
2. administratively and/or physically prevent a radiation procedure from being undertaken unless the procedure has been approved for the individual by the Operator in accordance with written guidelines described in item 1 above.
3. specify how the approval of the radiation procedure is to be documented.

Please note:

The department advises that for any Computed Tomography, Nuclear Medicine or Fluoroscopic radiation procedure, approval should be documented separately to any record that may be kept of the operator's identity.

For general radiographic procedures that have been assessed as meeting the requirements for generic justification, and have been individually approved by the operator, the management licence holder may elect to permit this approval to be documented by exclusion.

That is, a protocol for assessment of general radiographic procedures could specify:

1. the radiographer identified as the operator for a general radiographic procedure on the RIS system is also the person who has approved the procedure, unless otherwise documented.
2. the general radiographic procedure requested on the referral is also the procedure that has been approved, unless otherwise documented.
3. the date the general radiographic procedure was performed is also the date the approval was given, unless otherwise documented.

If the management licence holder elects to permit the documentation of approval of general radiographic procedures by exclusion, protocols must also specify how any variation to the above is documented.

Where medical radiation procedures are **approved** by the **Radiation Medical Practitioner**, the protocols must:

1. ensure approval of a radiation procedure complies with the relevant clauses of section 3.2 of the Code; and
2. administratively and/or physically prevent a person from carrying out a radiation procedure unless the procedure has been approved for the individual by the Radiation Medical Practitioner. This process may require the approval to be documented depending on the type of controls employed. Refer to Appendix C for an example of a referral form which allows approval to be documented.

It is strongly recommended that the approval protocols be supported by standard operating procedures and policies that:

1. provide guidance on the roles and responsibilities of the Radiation Medical Practitioner and the Operator in relation to approval of radiation procedures;
2. specify actions to be taken for dealing with imaging requests that are not approved (refer to flow chart in Appendix A); and
3. specify a process for regular review of the approval protocols.

A self-assessment checklist is provided in Appendix D to assist licence holders in the development of protocols for the approval of radiation procedures.

Glossary

Refer to the glossary in the *Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (2008)* (Code) as published by the Australian Radiation Protection and Nuclear Safety Agency. A copy of the Code can be obtained from:
<http://www.arpsansa.gov.au/pubs/rps/rps14.pdf>

Related Documents

All publications listed below are available in electronic format, and can be downloaded free of charge from: <http://www.arpsansa.gov.au/Publications/codes/rps.cfm>

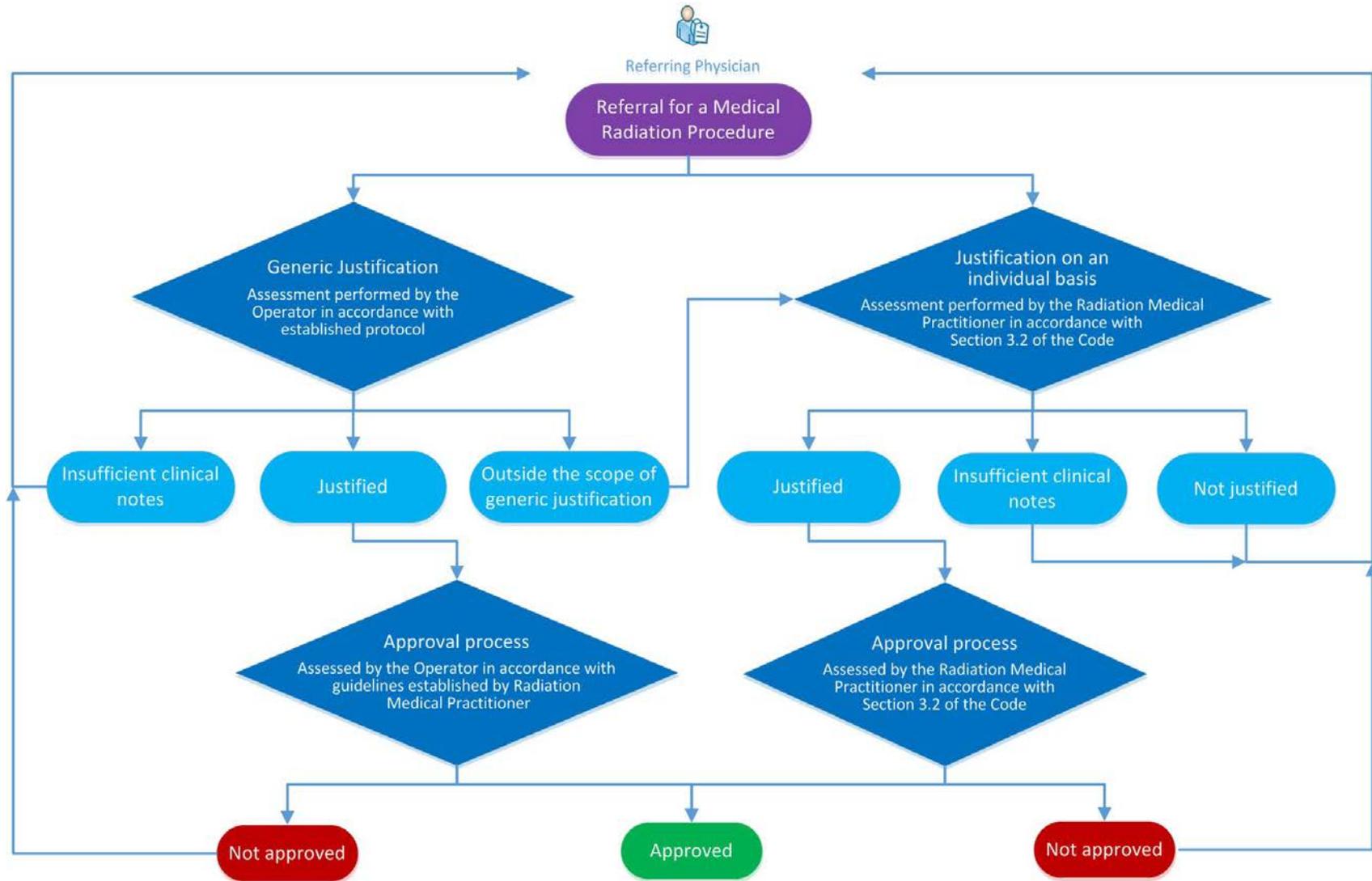
[RPS 14, Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation \(2008\).](#)

[RPS 14.1, Safety Guide for Radiation Protection in Diagnostic and Interventional Radiology \(2008\).](#)

[RPS 14.2, Safety Guide for Radiation Protection in Nuclear Medicine \(2008\).](#)

[RPS 14.3, Safety Guide for Radiation Protection in Radiotherapy \(2008\).](#)

Appendix A: Justification and approval flow chart



Appendix B: Example of a generically justified radiation procedure

| | |
|-----------------------------------|--|
| Radiation procedure: | CT Head |
| Clinical question: | Suspected intracranial pathology |
| Clinical indications: | Unexplained chronic headache, Unexplained seizure |
| Contraindications: | - |
| Scan protocol: | kVp: 120 mAs: 300 using dose modulation Rotation time: 0.8 s Gantry tilt: to remove orbits from FOV Pitch: 1:1 FOV: 22 cm CTDI phantom used: 16 cm head CTDI _w : 60 mGy DLP: 1000 mGy.cm Typical effective dose: 2 mSv |
| Patient position: | Supine with chin tucked down to reduce dose to face and orbit. |
| Contrast media: | - |
| PACS/ ARCHIVE information: | THIN, 20-30 axial Coronal and Sagittal: 4-5mm thick DICOM IDENTIFIERS: THIN C- /THIN C+ C- AXIAL/ SAG / COR C+ AXIAL/ SAG/ COR BONE |
| Approved by: | Name of Radiation Medical Practitioner |

Appendix C: Example of a referral form with fields for documenting justification and approval

| Medical Imaging Request Form | |
|--|-----------------|
| Patient details (Name, Date of birth, Address, Telephone, Medicare number required): | |
| Examination required: | Clinical Notes: |
| Referring Doctor details (including provider no.): | |
| _____ | _____ |
| Signature | Request date |
| Internal use only: | |
| Is the procedure justified (Yes/No)? _____ | |
| Assessment of justification performed by: _____ | Date: _____ |
| Approved by: _____ | Date : _____ |
| Procedure to be performed: _____ | |

Appendix D: Justification and approval compliance checklists

The following checklists are intended to be used as a self-assessment tool in the development of protocols for the justification and approved of radiation procedures.

Justification checklist

| Item | Generic justification (where applicable) | Yes | No |
|------|--|--------------------------|--------------------------|
| 1.1 | Is there a list of radiation procedures that have been generically justified by the Radiation Medical Practitioner based on a set of clinical indications, contraindications and the clinical questions that each procedure can answer? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.2 | Does the list of generically justified procedures specify for each procedure: <ol style="list-style-type: none"> 1. the clinical indications on which the justification is based; 2. contraindications for the procedure (e.g. pregnancy); and 3. the clinical questions that can be answered by the procedure? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.3 | Is there a procedure for assessing a referral against the criteria specified above (items 1.2) to determine whether or not the application of a generically justified procedure on an individual is justified? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.4 | Is there evidence (e.g. signature) that shows that the generically justified procedures described in item 1.1 above have been established by the Radiation Medical Practitioner? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.5 | Is there evidence (e.g. signed statement) that shows that the Radiation Medical Practitioner has establishing each generically justified procedure in accordance with Clause 3.2.2 of the code? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.6 | Are there administrative and/or physical controls (e.g. policies, procedures or IT systems) that prevent a person from carrying out a radiation procedure unless it has been justified? | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.7 | Do procedures and protocols regarding justification and approval use language consistent with the mandatory nature of the requirements? (e.g. use 'must' and 'shall', and avoid 'should', 'where practicable') | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.8 | Do procedures and protocols address all radiation procedures (e.g. CT, fluoroscopy, general x-ray, nuclear medicine) | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.9 | Do procedures and protocols address a situation where the procedure might not have been performed satisfactorily and an additional radiation procedure might be required? (e.g. failed NM injection, or poor acquisition timing with contrast administration) | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.10 | Is there evidence showing that all persons (including radiation medical practitioners) affected by the above procedures are familiar with the procedures e.g. training records? | <input type="checkbox"/> | <input type="checkbox"/> |

| Item | Justification on an individual basis (where applicable) | Yes | No |
|------|---|--------------------------|--------------------------|
| 2.1 | Where a radiation procedure is not generically justified, is there a system (e.g. policy) that ensures that the referral undergoes an assessment by the Radiation Medical Practitioner to determine whether or not the procedure is justified on an individual basis in accordance with clause 3.2.2 of the Code? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.2 | Are there administrative and/or physical controls (e.g. policies, procedures or IT systems) that prevent a person from carrying out a radiation procedure unless it has been determined by the Radiation Medical Practitioner that the procedure is justified? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.3 | Is there evidence showing that all persons affected by the above procedures (including radiation medical practitioners) are familiar with the procedures e.g. training records? | <input type="checkbox"/> | <input type="checkbox"/> |

Approval checklist

| Item | Approval by the Operator in accordance with guidelines | Yes | No |
|------|---|--------------------------|--------------------------|
| 3.1 | Have written guidelines been established by the Radiation Medical Practitioner for the approval of medical radiation procedures? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.2 | Do the approval guidelines meet the requirements of section 3.2 of the Code? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.3 | Is there evidence (e.g. signature) showing that the approval guidelines have been established or approved by the Radiation Medical Practitioner? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.4 | Do the approval guidelines require the approval of each individual radiation procedure to be documented (refer to Appendix C for an example of a referral form which allows approval to be documented)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.5 | Are there administrative and/or physical controls (e.g. policies, procedures or IT systems) that prevent a radiation procedure from being undertaken unless the procedure has been approved for the individual by the Operator in accordance with the guidelines described in item 3.1 above? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.6 | Is there evidence showing that all persons affected by the above procedures (including radiation medical practitioners) are familiar with the procedures e.g. training records? | <input type="checkbox"/> | <input type="checkbox"/> |

| Item | Approval by the Radiation Medical Practitioner | Yes | No |
|------|---|--------------------------|--------------------------|
| 4.1 | Is there a system (e.g. policy) that ensures approval of a radiation procedure by the Radiation Medical Practitioner complies with the relevant clauses of section 3.2 of the Code? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.2 | Does the system require the approval of each individual radiation procedure to be documented (refer to Appendix C for an example of a referral form which allows approval to be documented)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.3 | Are there any administrative and/or physical controls (e.g. policies, procedures or IT systems) that prevent a person from carrying out a radiation procedure unless the procedure has been approved by the Radiation Medical Practitioner? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.4 | Is there evidence showing that all persons affected by the above procedures (including radiation medical practitioners) are familiar with the procedures e.g. training records? | <input type="checkbox"/> | <input type="checkbox"/> |