



Response to ARPANSA Medical Exposure Code and Readers Guide

Throughout the documents, the term medical radiation technologist should be replaced with medical radiation practitioner. This is the protected title for the nationally regulated profession, including radiation therapist, diagnostic radiographer, medical imaging technologist, radiographer, nuclear medicine scientist and nuclear medicine technologist. These documents use radiological medical practitioner. Glossary = protected titles are: Specialist radiation oncologist, Specialist radiologist, Specialist in nuclear medicine

Readers guide: Radiation Protection in Medical Exposure

Line 8-9: Whilst ASMIRT applauds ARPANSA's desire to align with world's best practice; the Code for Australia should reflect the context of the delivery of medical radiations in Australia. This includes the significant differences in education and training, particularly with respect to that of medical radiation practitioners.

Line 23-25: Dose assessments are not only performed by medical physicists. Include dose assessments by medical radiation practitioners.

Line 39-41: The fact that all involved have a collective responsibility for justification and optimisation should come first, before the individual responsibilities.

Line 40: correct the term technologist.

Line 42-60: Why does the new code use the term medical physicist instead of the term qualified expert? If the definition is the same as RPS14, why is the term qualified expert not retained? A qualified expert is a person who:

(a) is qualified in the application of the physics of therapeutic or diagnostic uses of ionizing radiation; and

(b) has been recognised by the relevant regulatory authority as being able to perform the dosimetric calculations, radiation measurements and monitoring relevant to the person's area of expertise¹⁴

Both of these are clearly within the remit of medical radiation practitioners and the fact that the role of Radiation Safety Officer is undertaken by medical radiation practitioners attests to this.

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It is not clear how the new Code “adopts a graded approach to the level of the medical physicist”. Radiation therapists, diagnostic radiographers and nuclear medicine technologists undertake much of the dosimetry and quality assurance independently and certainly not under the supervision of a medical physicist. It is not conducted under the supervision of the medical physicist but in collaboration with them.

The scope of practice for medical physicists in radiation therapy is not well established, however it is universally recognised that radiation oncologists, radiation therapists and radiation oncology medical physicists must work collaboratively in the best interests of the patient. It is also not correct that in diagnostic imaging and image guided interventional procedures that the tasks are conducted by or under the supervision of a medical physicist. ASMIRT does not agree with the statement that “ultimately, only accredited medical physicists will be performing these functions.” Unlike medical practitioners and medical radiation practitioners, medical physics is an unregulated profession.

This requirement does not reflect the nature of contemporary practice. Many practices are stand alone and do not have medical physicists on site, nor do they require them to be. Medical radiation practitioners are well qualified to undertake the duties of ensuring that the Radiation Management Plan is adhered to, and conducting dosimetry and quality assurance. ASMIRT recognises that calibration is not currently within the scope of practice for medical radiation practitioners.

Line 48: Every state has slightly different rules from their regulators and this can cause confusion. It would be helpful if the ARPANSA document incorporated and made sense of each state requirement.

Line 66-70: In practice, the majority of requests for diagnostic imaging would not be sighted by the radiologist before imaging takes place. Nor would it be practical for this to occur. Medical radiation practitioners as educated professionals are determining the justification for proceeding, or not. Departmental guidelines are in place to notify the radiologist if there is any query arising from a request before proceeding.

Line 92: ASMIRT welcomes the periodic independent verification of calibrations of external beam radiation therapy units by the Australian Clinical Dosimetry Service, and the requirement for periodic internal review by the medical radiation team of systems, processes and procedures.

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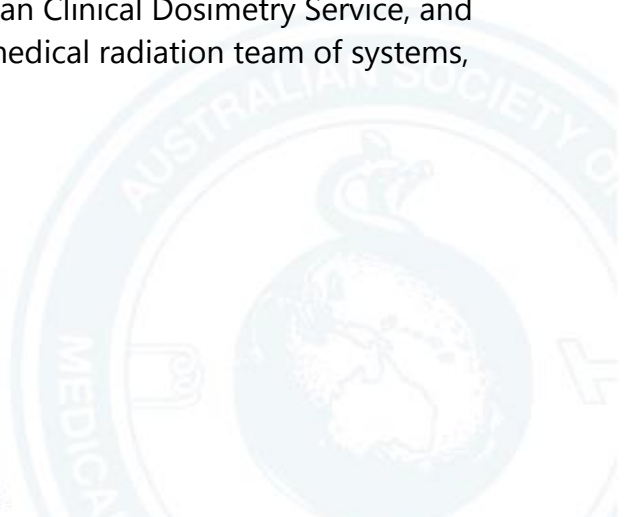
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Medical Exposure Code

Section 3.1.1

This section attempts to cover both diagnostic and therapeutic procedures and in doing so is unclear.

Line 261 (a) For radiation therapy, the procedure is not requested by the referrer. The referrer makes a referral to the radiation oncologist, who then determines the appropriate treatment. In this context the Responsible Person is firstly the oncologist who determines the need for radiation therapy and secondly the two radiation therapists who deliver the radiation therapy on a daily basis.

Line 263 (b) it is unclear what is meant by this. What is the context of "as appropriate" and in what circumstances would this be required for radiation therapy? If it is meant to ensure that potentially inappropriate requests for either medical imaging or radiation therapy do not progress, but rather are further discussed between the radiologist/radiation oncologist and the requester, then that is good.

Line 263: b) assume communication is via referral for procedure? There is rarely communication beyond that.

Line 285-291: ASMIRT commends the recognition of a collaborative approach

Lines 295-298: It is not clear how supervision in "under the supervision of a medical physicist" is defined. With respect to radiation therapy, some tasks such as dosimetry and quality assurance are undertaken independently (i.e. with no involvement of a medical physicist) for some patients/procedures whereas others would (such as patient specific QA for IMRT/VMAT). This varies from department to department. Perhaps better wording would be "in consultation with". This clause also applies to the section on the website re "How has the draft code been changed?" The ability of radiation therapists to complete these tasks in consultation with medical physicists may allow for more flexibility and efficiency.

Line 299-305: I think the issue here would be how supervision in "under the supervision of a medical physicist" is defined.

Line 324: Radiological Medical Practitioner – expand definition in glossary to include protected titles.

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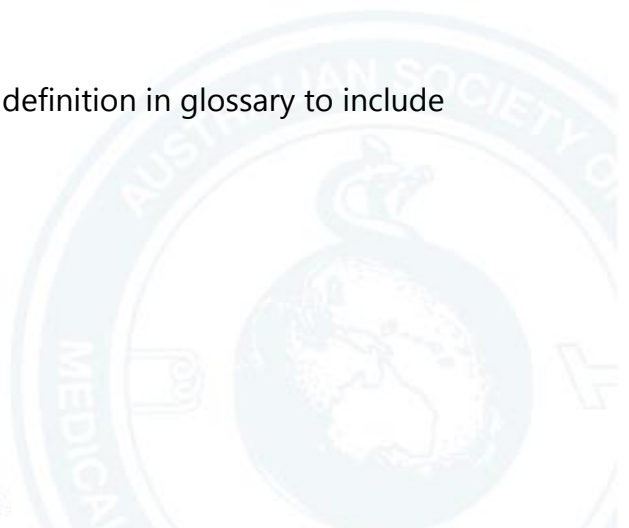
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Line 334: expand to include “diagnostic or therapeutic radiological procedure”

Line 334-346: Is it assumed that these are delegated responsibilities from the radiation medical practitioner? Diagnostic imaging requests are not routinely viewed by the radiologist. At the point of delivery, particularly line 336, 337, 341, 342, 344 and 346 are undertaken by the medical radiation practitioner.

Line 347: It is important to understand that justification of a medical exposure is a responsibility that is shared, in a collaborative manner, between the radiation medicine practitioner and the medical radiation practitioner. The responsibility of the medical radiation practitioner is mandated by the MRPBA and is referenced in the document – Professional capabilities for medical radiation practice. The majority of referrals for medical imaging examinations involving ionising radiation are not reviewed by a radiological medical practitioner prior to the patient being exposure to radiation.

Line 350: Referrals are made to radiation oncologists. Requests are made for diagnostic procedures. There is a distinction between these two terms. There is a difference according to Medicare. Requests and Referrals are not the same thing. Medicare has expiry dates and requirements for Referrals that don't apply to Requests for imaging. Requests don't expire but are still accepted “at the discretion of the imaging site” based on clinical information provided.

Referrals have expiration dates based on who the referrer is e.g. Specialist referral is 3 months, GPs may refer for a fixed period or indefinitely. It is not uncommon to receive a Request form for a patient that needs an exam to be performed more than 12 months from the original signing of the Request. This “discretion” is as part of the ARPANSA required Justification process. Every Request for imaging already needs to be ‘Justified’ by the radiologist before being undertaken.

Line 360, line 363, line 367: Does this include electronic prescriptions and instructions? If so, include (electronic)

Line 361 and Line 368: Is “have provided generic written guidelines for the procedure” meant to assume that there are protocols in place for the procedures?

Line 400 definition of Operator – in the glossary define who this may be i.e. radiological medicine practitioner, medical radiation practitioner, medical physicist.

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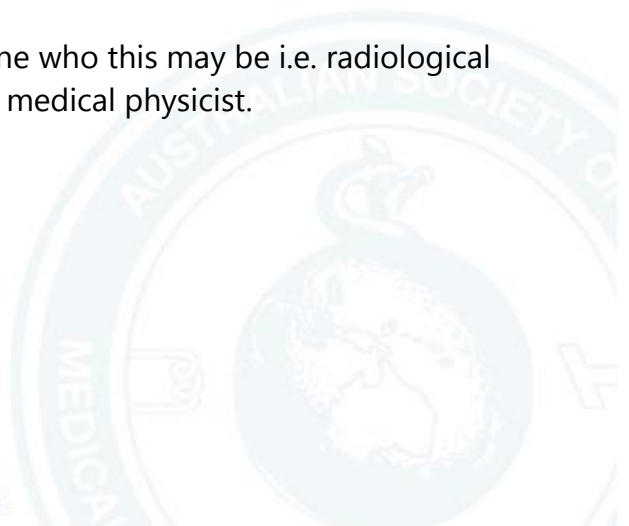
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Line 410-412: recommend substitution of the word “established” with the words “endorsed or established”. Contemporary clinical departments would more commonly have examination protocols developed by an inter professional group of clinicians involving medical radiation practitioners, medical physicists and radiation medicine practitioners.

Line 421: suggest that “monitoring” would be a more appropriate word than “oversight”

Line 458: Justification of medical exposure: This is in the current version of the code but is not stressed. ASMIRT are pleased to see more emphasis given to justification.

Line 468-476: Is there an assumption that this is protocolised? The majority of imaging requests are not sighted by the radiologist before the imaging is performed.

Line 470: May be referral or as previously noted, may be a request. This is particularly pertinent if the request is not recent.

Line 521- 525: In Australia, radiation dosimetry is performed by radiation therapists. It is primarily the responsibility of the radiation therapist, not the medical physicist, to ensure that “that for each patient the exposure of volumes other than the planning target volume is kept as low as reasonably achievable consistent with delivery of the prescribed dose to the planning target volume within the required tolerances.” Radiation oncologists, radiation therapists and medical physicists collaborate to ensure that this is the case, but the dosimetry is performed by the radiation therapist. The education and training of radiation therapists differs from that of other countries and as such aligning with the codes of other countries is not appropriate in this respect.

Line 526-531: In Australia, the Nuclear Medicine Physician, in collaboration with the Nuclear Medicine Technologist and/or Nuclear Medicine Scientist (protected title) “ensure that for each patient the appropriate radiopharmaceutical with the appropriate activity is selected and administered, so that the radioactivity is primarily localised in the organ(s) of interest, while the radioactivity in the rest of the body is kept as low as reasonably achievable.” There may be no medical physicist present.

Line 532: Should acknowledge the role of the medical radiation practitioner and medical physicist i.e. ‘The radiological medical practitioner must, in collaboration with the medical

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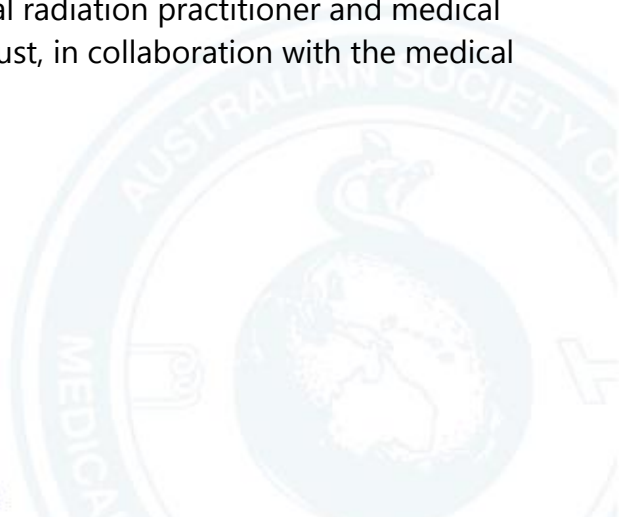
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physicist and/or the medical radiation technologist (practitioner), ensure that particular attention is given to

Line 558-560: Is this intended to be for individual patients? If so it is not clear how this would be implemented.

Line 568-578: DRL requirements for CT & NM are mandatory, however members note that it has not been well advertised by ARPANSA. They have become aware when DIAS assessors have taken a role in advertising to their DIAS clients.

Line 580-585: ASMIRT is pleased to see that the code recognises that collaboration by all stakeholders is imperative.

Line 693: include radiation therapists for radiation oncology unintended/accidental exposures. i.e. "in the case of an unintended/accidental external beam radiation therapy or brachytherapy treatment arrange for the calculation or estimation by a medical physicist and/or radiation therapist of the doses received and the dose distribution within the patient

Line 738: Again, is this for individual patients? It forms part of every radiation therapy and nuclear medicine patient record, but what about diagnostic imaging?

Line 750-759: This implies that all plans have a Planning Target Volume (PTV). Usually this is the case due, however for some palliative cases, fields are marked and there is no PTV. For Superficial treatment, the treatment is defined by fields and there is no PTV defined. Suggest changing to 'a description of the planning target volume or field'.

Line 752: The prescribed dose is not always at the centre of the PTV. Therefore the wording 'the absorbed dose to the centre of the planning target volume', is not relevant. Alternative wording could be 'the absorbed dose representative of the treated volume'.

Line 934: Although not a regulated profession, medical physicists are health professionals.

Line 953: Query inclusion of the word "independently" in this definition and not in that of medical radiation practitioners.

Line 960: Protected title is Medical Radiation Practitioner. Change definition to "A health professional, with education and training in medical radiation technology, competent and registered to practice as a medical radiation practitioner in one or more of the specialties

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of medical radiation practice, including radiation therapy, diagnostic imaging and nuclear medicine imaging”

Line 996: Suggest aligning with AHPRA Radiation medicine practitioner

Line 1009: also include definition of Request



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