

Ethical use of dental radiographs

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Radiographic imaging play an indispensable role in modern dentistry, supporting accurate diagnosis and guiding clinical decision-making. Yet, as awareness grows about radiation exposure and the broader implications of diagnostic imaging, dentists must navigate the ethical dimensions of radiograph use with clarity and care, especially within the uniquely complex environment of South African oral healthcare in both the private and public sectors.

Balancing Autonomy and Clinical Judgment

Central to ethical dental care is the principle of patient autonomy, firmly entrenched in the Health Professions Council of South Africa (HPCSA)'s *Ethical Rules of Conduct* and Section 6 of the *National Health Act 61 of 2003*. These frameworks enshrine the patient's right to make informed choices, including decisions about diagnostic imaging. The dentist has to ensure patients understand the reason for recommending radiographs, the potential benefits, and any associated risks.

The key is clear, and easy to understand communication. Patients must feel empowered to ask questions, express concerns, and make decisions aligned with their values. However, autonomy does not entitle a patient to demand care that falls below acceptable clinical standards, nor can a practitioner be compelled to provide treatment that compromises safety or quality.

To establish trust, practitioners must respect patients' autonomy, their right to decide whether or not to undergo any dental treatment, even where a refusal may result in harm to themselves. This right allows patients to make their own informed choices, and to live their lives by their own beliefs, values, and preferences.

Where a patient declines radiographs or fewer radiographs which are deemed essential for diagnosis or treatment, clinicians face an ethical tension: respect the patient's decision while upholding professional standards. In such cases, the conversation should be carefully documented, including the rationale for imaging, the patient's concerns, and the potential impact on outcomes. Dentists may need to adapt treatment plans or refer patients to another practitioner when consensus cannot be reached.

Clinical Justification and the ALARA Principle

The ethical justification for any radiograph must rest on clinical necessity. South Africa's *Hazardous Substances Act* (Regulation R1332) requires radiographic imaging to be used only when its benefits clearly outweigh potential risks. This aligns with the global ALARA principle "*As Low As Reasonably Achievable*" which underscores the responsibility to minimise radiation exposure without compromising care.

Routine or "checklist" imaging should be avoided. Instead, decisions should be based on caries risk, periodontal status, clinical presentation, and patient history. While radiographs are indispensable for visualising interproximal surfaces, bone

levels, root integrity, and subgingival pathology, their use must be justified for each individual case.

If a patient refuses radiographs for reasons such as fear of radiation, financial constraints, or personal beliefs, the dentist is still legally and ethically required to meet the standard of care. Where appropriate imaging cannot be obtained, the practitioner may ultimately need to consider withdrawing from care in a responsible, documented manner. This should involve issuing a written explanation to the patient, outlining the risks of non-diagnosis and the legal basis for discontinuation of services.

The dentist may properly decline to treat the patient. Under these circumstances, termination of the dentist-patient relationship presents the least risk to the dentist because failing to take dental radiographs when needed for proper diagnosis qualifies as substandard care. This is so even if the patient signs a form stating refusal of radiographs as a personal preference and understands that the dentist cannot provide proper treatment because the dentist still has a legal and ethical duty to treat within the standard of care.

If termination is the preferred option, elaborate documentation in the patient's record is recommended. A dismissal letter should also be sent by to the patient emphasising failure to treat some dental conditions may result in permanent, irreversible damage to the patient's dental health.

Managing Informed Refusal

When patients decline necessary radiographs, clinicians should consider using an "informed refusal" process. This involves clearly outlining the purpose of the radiographs, the consequences of non-compliance, and recording the refusal in the clinical notes. Where possible, the patient should sign a written acknowledgement confirming that they have understood the dentist's recommendations and are making an informed decision to proceed differently.

This documentation is not a waiver of responsibility, but it does provide a factual record should any future disputes arise. While it does not offer absolute legal protection, it reflects the clinician's efforts to act transparently and in the patient's, best interests, important factors in any legal or regulatory review.

Following these procedures will provide evidence against a later claim that the patient did not know of or understand the recommendation. While this type of record or disclaimer is not absolute protection against litigation, it will ultimately demonstrate to the courts what the recommendations of the dentist were and that the dentist cared enough for the patient to take the time to explain the potential adverse consequences of the patient refusing the treatment, and it will raise in the mind of the judge of the fact that the patient may have contributed, by individual choice, to the negative outcome.

Access, Portability, and Data Protection

Ethical radiographic practice extends beyond image acquisition. Sharing and storing radiographic data must comply with South Africa's Protection of Personal Information Act (POPIA), which mandates that patient data be handled confidentially and securely. Dentists should only share radiographs with proper consent and through encrypted or password-protected channels.

When patients change providers or request prior imaging, dentists should facilitate the transfer promptly, without discrimination based on the patient's ability to pay. This collaborative approach supports continuity of care and avoids unnecessary repeat exposures.

Emergency Care and Ethical Duties

Emergency dental care presents another area where ethics

intersect with practicality. In situations involving trauma, swelling, or acute infection, radiographs may be critical to immediate care. However, when patients still refuse imaging, clinicians must do their best to manage the situation using available information—while respecting the patient's right to decline. In such cases, careful documentation of the refusal, clinical presentation, and modified approach to care is essential.

Conclusion

In the South African dental landscape, where patients' expectations, healthcare regulations, and access to care vary widely ethical use of radiographs requires thoughtful, case-by-case judgment. Dentists must weigh the clinical need for imaging against the patient's right to choose, all within the boundaries of professional guidelines and legal obligations.

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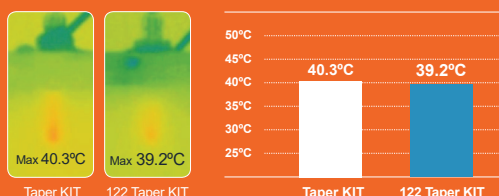
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