

Endodontic treatment – reamers do break

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During routine root canal treatment (RCT) of a lower molar tooth, a reamer fractured in one of the root canals. Should I inform the patient? What are my ethical obligations to the patient? Is a broken reamer or file a legal or practice management problem? Should I only charge the patient if the RCT is successful? When should I as a general dental practitioner refer the patient to a specialist?

COMMENTARY

Obtaining voluntary, valid, informed consent from patients prior to any investigations and or treatment being carried out on them is an ethical and legal requirement. The basis for this is the principle of autonomy and it refers to the right of every individual to make decisions for him/herself after all the necessary and relevant information has been provided (related to the diagnosis, procedures recommended and the consequences and costs). A competent patient makes a choice based on an understanding of the information given to him/her, and after weighing up the proposed treatment options. This process shows respect for the patient's right to self-determination and encourages participation in decision-making.¹

One of the challenges related to eliciting informed consent is how much information should be given to the patient to enable a reasonable decision? According to the National Health Act of No 61 of 2003, Chapter 2 Section 6 the following information must be given to the patient (User of Health Care Service):²

- Range of diagnostic procedures and treatment options available.
- Benefits, risks, costs and consequences associated with each option.
- The right of the user to refuse care and to receive explanations of the implications, risks and obligations of such refusal.

Furthermore, this information must be provided in a language that the patient understands and in a manner that takes into account the patient's literacy level.

If potential and known consequences of treatment might keep patients from leading their normal lives, they should be so informed. Patients may need more details to make an informed decision about a procedure which carries a

high risk of failure. Known risks should be communicated to the patients even if the probability of their occurring is low. In some instances, there may be other potential consequences of treatment that may not interfere with the patient's life style and dentists would need to use their discretion in deciding what to reveal. There is however, a fine line between these two categories of risks – those that interfere with normal life and those which are mildly inconvenient. A practical way of deciding what to communicate would be to pose the question what the dentist him/herself or his/her close relatives and friends – should be told were they in the educational, emotional and clinical position of the patient. Thereafter, the practitioner must carefully convey the appropriate information to the patient. A consideration of the prognosis is critical to this discussion as the relative difficulty of the RCT must be assessed along with the risks for failure. Good communication is a necessary pre-requisite for responsible decision-making. In order to exercise their right to informed consent, patients must understand their diagnoses, the various treatment options, and the possible consequences of undergoing or refusing treatment. Clarity of communication between the patient and the dental team is essential at all times and will dissipate fear and allay anxiety.

Practitioners must be aware of the limitations of the technology used in day-to-day practice. Dental burs, scalers, endodontic files and reamers are instruments that may fracture or malfunction in the hands of the most competent clinician. The practice of endodontics accounts for one of the highest negligence claims against dentists.³ Research has demonstrated a relationship between communication skills and complaints lodged against health care workers. Dentists who are pre-occupied with procedures or technology, who spend little time talking to patients and who give minimal explanations to patients are at higher risk of litigation. The likelihood of litigation appears to be related to "patients' dissatisfaction with their physicians' ability to establish rapport, provide access, and administer care and treatment consistent with expectations and communicate effectively".⁴

Whatever the consequences and no matter how serious or how trivial may be a potential complication, the patient needs to be immediately informed. Some may fear that this may be an admission of blame, guilt and liability and consequently not inform the patient. While ethical principles may help to distinguish right from wrong, a good practitioner must display the virtues of honesty, integrity, compassion, trustworthiness and discernment. Virtue ethics allows appropriate examination of the moral character of the health profession-

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Table 1: Risk management strategies for endodontic treatment

Diagnosis	Establish a clear diagnosis and discuss the treatment objectives with the patient prior to commencing endodontic therapy.
Assessment	A full assessment of the tooth or teeth including radiographic assessment to get a clear idea of the anatomy of the root canals and to foresee any problems that may arise.
Patient expectations	Ensure that the patient's expectations are realistic in terms of the outcomes of endodontic treatment.
Fractured instruments	Where a fracture is anticipated, patients must be advised accordingly. If a fracture does occur, the patient should be informed and all the appropriate options considered and discussed with the patient.
Consider Alternatives	The desire to save the tooth may be paramount, but endodontically treated teeth may subsequently require expensive restorations. It is important to consider the endodontic treatment as part of the long term treatment needs of the patient and to consider alternatives that may including extracting the tooth.
When it goes wrong	The patient should be fully informed of other options when things go wrong like an unexpected fracture of an instrument or any adverse outcome.
Meticulous technique	Root canal treatment is not always successful and patients may want to know the reasons for failure. Techniques should be evidence-based and where possible, a rubber dam or other forms of isolation should be used to prevent infection.
Consider other risks	On rare occasions, endodontic treatment can damage other structures as a result of mechanical or physical trauma. Care should be taken to ensure that all materials remain within the tooth.
Review after treatment	Always review the long term treatment plan after endodontic treatment has been carried out to ensure that the appropriate restorations can be placed on the tooth.
Follow up	Follow up is essential especially if there were any problems (like fractured instruments) during treatment.

(Adapted from DPL Riskwise South Africa #13 2008)⁴

al, their intention, ability to use wisdom and judgment when making decisions. It is appropriate to discuss dentistry as a 'practice' in relation to virtue ethics where qualities such as courage and justice are virtues that enable the internal goals of good practices.⁵ Truth-telling is a virtue, obligation or principle, commonly referred to as veracity. In recognising the situation and informing the patient accordingly, this demonstrates a degree of respect for the patient. There is also an opportunity to offer an explanation and a solution to the problem - for example - by providing an immediate referral to a specialist. Patients expect their health professionals to value veracity not as a mere courtesy, but a necessity of the doctor-patient interaction and relationship.

As with any other dental procedure, endodontic treatment carries several risks and it is imperative that patients are informed about them (Table 1). The need for specialty referral should also be included if appropriate. Nonetheless, despite the most thorough informed consent process, a patient may still assume that any complications and unsuccessful treatments are the result of substandard work and may expect reduced fees and refunds. Proper communication that allows for patient input will permit the patient to make the final decision as to whether the risks of the treatment are worth taking. It is recommended that at the end of treatment planning the dentist should ask the patient to sign an outline of what has been agreed to and understood including possible risks and adverse events. The treatment plan should always be in writing and include a clear statement of the financial costs to which patients are committing themselves. This would show that the duty to obtain consent was taken seriously and recognised by both the dentist and patient. The duty of care to protect a patient's health and life, to respect their autonomy to make informed choices about what happens to them and to do so fairly and truthfully are widely accepted as the fundamental ethical principles governing all healthcare.

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Readers are invited to submit ethical queries or dilemmas to

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