

Letter to the Editor

COVID-19 pandemic: an opportunity to rethink the patients' pathway to an endodontist?

Dear Editor,

An unusual situation such as the COVID-19 pandemic we are currently experiencing creates challenges and opportunities. One obvious strategy is for patients to avoid unnecessary exposure to dentists and endodontists and to minimize the number of appointments. These basic principles were *de facto* applied from the beginning of the pandemic but, in the end, should be applied perennially and independently of the health context. The current state of crisis is perhaps a means of rethinking patient care, the patient's care pathway, particularly in the context of referral to a specialist. With this letter, we would like to propose reflections to ensure that, when we emerge from this crisis, these basic principles will continue, for example by improving the patient's path to referral to an endodontic specialist.

Referrals to an endodontist may increase in the coming months with the current health context and then lead to complexity in planning appointments in hospital dental services. The reasons for such referrals to a specialist are already described in the literature: pain management, especially difficult anatomy and the need for complex endodontic re-treatments (Abbott 1994, Chrysanthakopoulos 2011, Touré *et al.* 2011, Tzimpoulas *et al.* 2012).

Other reasons include issues such as the presence of perforations, resorptions as well as unexplained persistent signs and symptoms (Messer 1999, Ree *et al.* 2003, Pothukuchi 2006). In order to provide continuity of care whilst avoiding unnecessary risks and keeping appointments to a minimum, it is fundamental to improve the pathway of patient referral to an endodontic specialist. The pandemic has stimulated the digitization of society, including in the field of health. Using different means of communication (phone call, e-mail, and photograph and file sharing), healthcare professionals ensured contact with each other and with their patients. In endodontics, the combination of two technologies could contribute to a better management of patients by general practitioners: the use of the American Association of Endodontist (AAE) case difficulty assessment app (or equivalent) and teledentistry.

First, case difficulty assessment apps help to codify the complexity of a given endodontic case and allows the general practitioner to assess the clinical situation of their patient (AAE 2020, Mallishery *et al.* 2020, Shah *et al.* 2020).

These apps are an important tool in referring patients to specialists and thus reduce treatment time (AAE 2020, Mallishery *et al.* 2020, Shah *et al.* 2020).

Secondly, already proposed as an alternative in the context of the management of patients during the pandemic crisis (Maret *et al.* 2020), the concept of telemedicine can be useful to address the above-mentioned problems related to geographical distance. Moreover, this technology can help by improving the quality of medical care and the appropriate triage of patients, particularly in regions and areas where access is limited for geographical, social or health reasons (Brucoli *et al.* 2019, Maret *et al.* 2020, Neelakantan *et al.* 2020). Teledentistry clearly broadens access to care; people that normally do not have access to an endodontist can now at least initially be diagnosed. The specialty of Endodontics is an area that can take advantage of this technology to remotely examine pre-operative, post-operative and emergent oral imaging. More particularly, teleradiology is an interesting means of communication between general practitioner and specialist endodontist. Teleradiology is in our view another tool to be more broadly implemented to help triage patients referred by general dentists to endodontists (Rodríguez *et al.* 2017). This could serve several purposes, for example it would simplify the planning of appointments in hospital dental services. The teleradiology process includes an image sending station, a high-performance transmission network and an adapted image receiving station. Of course, it is important to know how to use this technology safely and securely and to demonstrate that it has clear advantages (Brucoli *et al.* 2019). The ideal modality for transferring medical images is a secure online consultation website (Brucoli *et al.* 2019).

Through these two technologies, understanding complexity of the case, using case difficulty assessment apps, imaging-type examinations may be studied synchronously or asynchronously. Teleradiology may be carried out by the team of endodontists, could include radiologists and would aim to collect the essential elements allowing prioritizing and planning

the appointments of the referred patients. A more efficient specialized endodontic consultation and better triage could be achieved improving patient management. Improving the triage of patients to a specialist, especially in a hospital department or in multi-specialist group practices, concerns all dental specialties because the management and time spent in and out of the hospital is costly. It is important to continue our professional efforts to maintain an efficient and seamless dental healthcare system, protecting our patients and staff from infection. Overall, all healthcare professionals should collaborate more closely together to improve referral systems to enhance patient care and reduce healthcare costs. Improving the quality of care by encouraging the various professionals involved to better coordinate their interventions and thereby reduce or eliminate unnecessary, redundant or inappropriate actions is the principle of the value-based care model. The definition of treatment outcomes adopted by most specialist practitioners, certainly by those working in a fee-for-service model, is currently challenged for its lack of focus on patient values. Perhaps, the proposed inclusion of information technology in the referral pathway could also lead to better information sharing with patients and ultimately to oral health improvement.

**D. Maret^{1,2}, F. Diemer^{1,3}, M. Gurgel¹,
N. Telmon^{2,4}, F. Savall^{2,4}, M. Faruch^{2,5},
O. A. Peters⁶**

¹Faculté de Chirurgie Dentaire, Centre Hospitalier Universitaire, Université Paul Sabatier, Toulouse,

²Laboratoire Anthropologie Moléculaire et Imagerie de Synthèse, Université Paul Sabatier, Toulouse,

³Institut Clément Ader (laboratoire), Toulouse,

⁴Service de Médecine Légale, Centre Hospitalier Universitaire Rangueil, Toulouse,

⁵Service de Radiologie, Hôpital Pierre-Paul-Riquet, Toulouse, France

⁶Department of Endodontics, School of Dentistry, University of Queensland, Brisbane, QLD, Australia
E-mail: delphine_maret@yahoo.fr

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