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Should photographic triage become common practice?

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Title/Question: Should photographic triage become common practice?

Authors

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A Commentary on: Davies A, Howells R, Lee SMG, Sweet CJ, Dominguez-Gonzalez S. Implementation of photographic triage in a paediatric dental, orthodontic and maxillofacial department during COVID-19. *Int J Paediatr Dent.* 2020 Dec 28. doi: 10.1111/ipd.12773. Epub ahead of print. PMID: 33369779.

Design: cross sectional study, exploratory study collecting photographic referral data over three months

Sample Selection: Paediatric referrals to the orthodontic and maxillofacial department at Alder Hey Hospital during the Covid-19 pandemic

Data Analysis: Photographic referrals were analysed using Microsoft Excel to determine treatment outcomes, including 'not to see', 'plan to see' and 'need to see'. Demographic information collected and analysed were patient age, gender, referral source and presenting complaint.

Results: 220 photographic referrals were received, with swelling (30%) and dental trauma (27%) being the most common presenting complaints. 57% of the referrals were not seen. 23% were seen semi-urgently and 20% booked for outpatient review. Of those seen, 7 children were examined elsewhere with 44 receiving face-to-face consultations at AHCH, with 8 being admitted.

Conclusions: Photographic triage has potential to be a useful adjunctive assessment tool for new patient referrals, with secondary benefits to training junior staff and for populations who already find access to dental services challenging. Feasibility studies on the application should be seriously considered. However, being mindful of the unique mediating factors which resulted in the development of a photographic triage method needs to be considered when generalising its use to normal working conditions.

GRADE Rating: n/a

Commentary:

In March 2020, general dental practitioners (GDPs) were advised to cease all face-to-face contact, due to the COVID-19 pandemic¹. Following this abrupt disruption to primary care dental services, patients with acute dental, orthodontic, or maxillofacial problems had limited options. For primary care, patients could attend one of the newly commissioned urgent dental centres, and/or an oral maxillofacial department for secondary or tertiary care. This paper describes descriptive findings on the usefulness of a photographic triage method, set up by Alder Hey Hospital, to determine treatment outcomes from referrals received by parents, and a wide range of health professionals, within the hospital and out in the wider community.

Alder Hey Children's Hospital (AHCH) serves a population of approximately 1 million children aged 16 and under with their combined dental, orthodontic and oral maxillofacial surgery department. After ceasing all routine outpatient appointments and elective general anaesthetic procedures, a combined telephone and photographic triage system was urgently set up to receive referrals for acute dental conditions. Contemporaneous data were collected between March and June 2020. Data included, patient age and gender, referral source, date of referral, presenting complaint, and outcomes. The three outcome options were, 'not to see', 'plan to see' and 'need to see'.

A total of 220 photographic referrals were received in relation to 190 children (107 males, 83 females), aged 3 months to 21 years old ($\mu=7$ years). Swelling and dental trauma were the most

common presenting complaints (57%). For 23 children, images were received on more than one occasion. Screening was carried out by the oral and maxillofacial surgery dental core trainees, paediatric dental registrars, and nursing staff. Following a full clinical history, images were requested if necessary, with a consultant making the final decision on the treatment outcome. Over half the referrals were not seen. A total of 44 children received a face-to-face consultation, with 8 being admitted.

Notwithstanding the broad limitations, this paper is important as it highlights both useful applications of a photographic triage method where access to services may be severely limited, and how a photographic triage system could improve referral systems generally. Secondary benefits to staff training was also found. It also highlights the distinct paucity of research in this area.

Further research is warranted to enhance systems that may now be outdated². However, care should be taken when comparing the highly unusual circumstances which led to the development of a photographic triage method, to general working conditions. For example, parent carers would not ordinarily be involved in the direct referral of their children to services. There was also a noticeable increase in dental trauma noted by the hospital, speculating the lockdown and children playing in different environments to school being theorised. In addition, the decision-making of the gatekeepers should be explored.

Practice Points:

- Assessing children remotely may help break down barriers, particularly for children with sensory challenges, whom may otherwise avoid accessing dental services
- Photographic triage, including monitoring and reviewing pre-existing conditions, could reduce the opportunity costs for both clinicians and families
- Reducing the need for face-to face encounters significantly reduces the risk of spreading disease, particularly during the COVID-19 pandemic

1. Chief Dental Officer. *Preparedness for Primary Dental Care*. 2020. www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/issue3preparednessletterforprimarydentalcare25march2020.pdf. Accessed 08 July, 2020
2. Hogan R, Goodwin M, Boothman N, Iafolla T, Pretty I A. *Further opportunities for digital imaging in dental epidemiology*. *Journal of Dentistry*, 2018. **74**: p. S2-S9.