

## Young Investigator Research Grant 2020 awarded to David Edwards

The European Society of Endodontology (ESE) awards young investigator grants to support researchers in the early phase of their research career in Endodontology ("young" investigator in the context of this award is defined as an individual who is 'professionally' young in academic terms rather than in chronological age, e.g. pre-doctoral students at all levels (MSc, PhD students and equivalent), and up to 3 years following the award of a PhD (or equivalent). See: <http://www.e-s-e.eu/research/young-investigator-research-grant.html>



### Project

**Title:** Investigating the impact of symptomatic irreversible pulpitis on quality of life, and the effectiveness of different management strategies: An observational study.

**Background:** There is some evidence that symptomatic irreversible pulpitis has a major impact on a patient's quality of life, and that it represents a significant proportion of cases presenting to emergency dental services. A recent report suggests that its management by general dental practitioners is not consistent or evidence-based, with a majority of surveyed dentists applying an antibiotic/steroid medication to exposed pulp tissue, a practice that does not enjoy the same evidence base as alternatives including pulpotomy and pulpectomy. Some practitioners wish to move away from the use of such medicaments, due in part to concerns about the misuse of broad-spectrum antibiotics. Anecdotally, the topical application of popular antibiotic/steroid preparations is effective for emergency pain management, yet its relative success compared to alternatives is uncertain. A prospective non-interventional study is therefore justified to identify the most effective approach and to properly inform clinical decision making.

**Aim:** Identify the impact of symptomatic irreversible pulpitis on a patients' quality of life, and the effectiveness of alternative management strategies.

**Objectives:**

1. Evaluate pain and Oral Health Related Quality of Life impact of symptomatic irreversible pulpitis in relation to other dental emergencies.
2. Evaluate the effectiveness of different management strategies for symptomatic irreversible pulpitis.

**Design:** Prospective data collection from primary dental care (8 sites), an out of hour's emergency service (2 sites) and a dental emergency clinic (1 site). Data will be collected from all consenting patients presenting with an emergency dental problem. Patients receiving treatment for symptomatic irreversible pulpitis will be followed up with questionnaires for a duration of 7-days.

**Data collection:** In addition to patient demographics, Oral Health Related Quality of Life (OHRQoL) data will be collected using Oral Health Impact Profile 14 (OHIP-14), and dental pain using a modified Graded Chronic Pain Scale

(GCPS) for patients before treatment. Supplementary data on economic burden and pain will also be collected (including a Verbal Rating Scale (VRS) and medication use). Dentists will supply details on the treatment administered and any medication used. To ensure a range of emergency interventions are included, dental practices will be stratified according to their usual approach. After treatment, patients will complete a daily questionnaire for 7-days to evaluate changes in pain using a Numerical Rating Scale (NRS), VRS, medication use and a global ratings of change question to enable evaluation of OHRQoL.

## Career

**Organisation:** School of Dental Sciences. Framlington Place,  
Newcastle upon Tyne, United Kingdom NE2 4BW

### Employment History

*2019-present:* NIHR Academic Clinical Fellow/Honorary StR in Endodontics, Newcastle University.

*2007-2019:* Senior Dental Officer; Royal Army Dental Corps

Postgraduate clinical training posts in Restorative Dentistry, Oral Surgery and vocational training

**Research interests:** Endodontics, Vital Pulp Therapy, Pain

### Qualifications

MSc Restorative Dentistry 2018	Plymouth University (Distinction)
FHEA 2018	Higher Education Academy
PGCert Medical Education 2018	Newcastle University
MFDTEd 2017	RCE(Ed)
PGDip Restorative Dentistry 2016	RCS(Eng)
PGDip Conscious Sedation 2014	Newcastle University (Merit)
MFDS 2007	RCS(Ed)
BDS (Honours) 2000-2005	Newcastle University

### Leadership experience

Attended Royal Military Academy Sandhurst 2007. Worked as Senior Dental Officer in Royal Army Dental Corps. Two tours of Afghanistan, overseas exercises in Kenya, managing civilian and military staff, managing the delivery of oral care to large populations whilst running multi-chair dental centres. Set up/ running of referral sedation service.

### Examinerships/ Peer review

MFDS RCS(Ed); Diploma in Restorative Dentistry RCS(Eng); Stage 5 (finals) examiner, Newcastle University

Peer review: European Journal Dental Education; Journal of Oral Rehabilitation

### Teaching

Stage 1 BDS neurobiology module; Stage 4/5 clinical supervision (Newcastle University); 'Insights' public lecture