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Short communication

Wrong tooth extraction: further analysis of "never event" data

M.N. Pemberton [a,b,*]

[a] *Division of Dentistry, Faculty of Biology, Medicine and Health, University of Manchester, Manchester Academic Health Science Centre, Higher Cambridge Street, Manchester M15 6FH, UK*

[b] *University Dental Hospital of Manchester, Higher Cambridge Street, Manchester M15 6FH, UK*

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Abstract

The NHS in England requires the reporting of defined "never events" that are directly related to patients' safety. Analysis of data from 2012–2015 has been published previously in this journal. An examination of continuing data from 2015–2019 shows that "wrong tooth/teeth removed" has not reduced in frequency and it still remains a common "wrong-site surgery" event accounting for between 16% and 24% of wrong-site surgery never events and 7%–10% of all never events reported. Hospitals and community Trusts remain the main source of such reports, although some now originate from primary-care-based dental settings. Further efforts have focused on prevention, and the implementation of existing measures to reduce the risk of wrong tooth extraction, is warranted.

Keywords: Patient safety; Wrong tooth; Never events

Introduction

In 2009, a list of "never events" was introduced in England.[1] Since 2010, NHS England has produced data that include details of these events and of the organisations that reported them.[2] Since 2012, these data have included "wrong tooth/teeth removed". An examination of reported data between April 2012 and October 2015 has been published in this journal.[3] This paper updates the analysis to April 2019.

Methods

I examined the data produced between April 2015 and April 2019, and identified the number of never events reported, the number of wrong-site surgery events, and the number of wrong tooth/teeth removed reported and their sources.[2]

Results

Table 1 shows that the incidence of wrong tooth/teeth extracted has not fallen over the time period examined. Table 2 shows that since 2016, incident reports of wrong tooth/teeth extracted have been submitted from primary-care based dental settings, but most reports still originate from hospitals or community services.

Discussion

In January 2009, the results of a large systematic study of checklists in surgery were published.[4] The results showed a considerable improvement in outcomes, and the checklist was adopted rapidly by many healthcare systems, including the NHS in the UK. It offered a process to help avoid adverse events, including wrong-site surgery, and this notion of pre-

* Correspondence to: Division of Dentistry, Faculty of Biology, Medicine and Health, University of Manchester, Manchester Academic Health Science Centre, Higher Cambridge Street, Manchester M15 6FH, UK.
E-mail address: Mike.Pemberton@manchester.ac.uk

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Table 1
Wrong-site surgery never events and wrong tooth/teeth extracted 2015–19.

Year	Total no. never events	Total no. (%) wrong site surgery	Total no. wrong tooth extracted (% of total never events)
2015–16	442	179 (18)	33 (7)
2016–17	445	189 (24)	46 (10)
2017–18	495	209 (16)	34 (7)
2018–19[b]	496	207 (20)	42 (8)

[b] Provisional publication data.

Table 2
Source of report for wrong tooth/teeth extracted never event, 2015–19. Data are number.

Year	Hospital or community services	Primary dental care	Total no. wrong tooth/teeth extracted
2015–16	33	0	33
2016–17	42	4	46
2017–18	28	6	34
2018–19[b]	35	7	42

[b] Provisional publication data.

ventable adverse events formed the basis of the identification of never events by the NHS. In 2009, the first initial core list of eight never events was published in England,[1] and this included wrong-site surgery.

Since 2012, the published data have included wrong tooth extraction as a subtheme under wrong-site surgery. In April 2015, a revised policy and framework for never events came into operation when the definition of wrong-site surgery was changed and the term "wrong tooth" explicitly added. Interventions considered to be surgical, but could be done outside a surgical environment, were included. An analysis of data between April 2012 and October 2015 found that wrong tooth/teeth removed was the most common wrong-site surgical event, accounting for between 20% and 25%.[3]

In February 2018, a further revised policy and framework for never events was introduced.[5] The explicit identification of wrong tooth removal as a never event was continued. The regular revisions to this introduce variation into each year's figures, and complicate the making of a true direct comparison. Nevertheless, wrong tooth extraction remained a problem throughout this period.

The requirements for the reporting of never events are applicable to all NHS-funded care, which includes patients seen in primary care settings. However, the patient-safety reporting systems in UK primary-care dentistry have been described as complex and obtuse.[6] This situation is likely to inhibit the reporting of wrong tooth extraction (and other issues of patients' safety in dentistry), and it is likely that the reported figures for wrong teeth extracted are an underrepresentation.

Over the last few years, various strategies to reduce the number of extractions of wrong teeth have been explored. The checklist has been useful in reducing the risk of extracting the wrong tooth in a hospital outpatient setting.[7] A template checklist that is suitable for use in a primary care setting has also been developed.[8] Other strategies to reduce risk include educational strategies, marking the facial skin, and the clarification of dental notation.[9,10] It is unclear how widely these processes have been taken up in clinical practice, but the data presented indicate that further effort in research should focus on prevention, and the implementation of known patient-safety strategies.

Conflict of interest

I have no conflicts of interest.

Ethics statement/ confirmation of patients' permission

No ethics committee approval or patient's consent was necessary for this study.

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