

Under ‘Data items’ in the new checklist, the addition of a sub-item aims to clarify how outcomes are defined, the methods utilised to select results and how this was carried out. ‘Synthesis of results’, under the methods section, is now broken into six sub-items to define the recommendations for reporting the eligibility, preparation, display, synthesis, exploration of heterogeneity and sensitivity analyses utilised during gathering and collating data. The ‘Synthesis of results’ within the results section has also been broken down to allow for more depth on the risk of bias, causes of heterogeneity and the use of sensitivity analyses.

The addition of reporting the certainty/confidence of evidence and its implications also allows for clinicians to understand how the results should be translated into policy and practice. Competing interests are now recommended to be reported for transparency of the results. This is along with whether the data, analytical code, or any other aspects of the collection and interpretation are publicly available and if so, where they can be accessed.

The flow diagrams have also changed to reflect the checklist and simplify understanding of the process. The previous four-phased flow diagram on study inclusion has now been updated to three, with removal of ‘eligibility’ and retention of ‘identification’, ‘screening’ and ‘included’.

The PRISMA 2020 statement aims to encourage standardisation and reproducibility for reporting outcomes. Reporting and sharing findings through this method will allow for work carried out to be shared, reducing duplication and meaning further research can be conducted. This update ultimately aims to increase our ability to facilitate the highest standard of evidence-based care for our patients.

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References

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3. Page M J, McKenzie J E, Bossuyt P M *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021; DOI: 10.1136/bmj.n71.

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Oral health

Interdental brushes and ISO standards

Sir, in recent years interdental space cleaning brushes in various diameters have become an important part of patients’ home plaque control because ‘in order to achieve the highest standards of interdental cleaning, interdental brushes are the most effective’.¹ Many different manufacturers now provide these important aids to oral hygiene. The brush heads themselves may be parallel sided or tapered. Handles vary from those in line with the brush head to various angled devices, creating a wide range of options for prescribers and their patients.

Unfortunately, there is little commonality between the different diameters on the market and the colour codes used by the manufacturers to identify the handles of their own size range. This can cause problems for patients, particularly if they attempt to buy brushes, for example online, and choose the cheapest available in that colour, forgetting that they need to follow the definitive sizes for the original maker’s brushes prescribed by their dentist or hygienist. It follows that dental professionals, when they prescribe brushes, also need to advise patients to use their chosen manufacturer’s brushes.

An alternative to suggesting patients just buy further brushes is for practices to stock brushes and advise patients that they can

buy replacements from them. This has the following advantages:

- It ensures that the correct make, as prescribed, is used
- It allows the prescriber to monitor each patient’s usage, or lack thereof
- It provides a further source of income for the practice.

Table 1 shows some of the choices available from internet research for parallel-sided brushes and is by no means exhaustive, particularly as some manufacturers do not disclose the diameters of their brushes online. It follows that patients seeking the cheapest possible brush could easily be confused by the plethora of options available. It is also clear from this study that patients requiring large diameter brushes where there is significant bone loss have limited choices; either Tandex or TEPE. There is no standard relationship between brush diameter and handle colour although it would appear that more follow the TEPE pattern. This could form the basis for standardisation. Manufacturers should also give brush diameters on their various packages.

A similar situation of non-standardisation existed with endodontic files in the past, before the current international standard colours were agreed. It seems to me that the time is now appropriate for a similar ISO standardisation programme for interspace

Table 1 Parallel-sided interdental brush comparisons across various manufacturers

Manufacturer	Colgate	Curaprox	Icon	Piksters	Tandex	TEPE	Procare
Country of origin	USA	Switzerland	UK	USA	Denmark	Sweden	Not known
Diameter in mm							
0.2	red						
0.3			white	pink	turquoise		
0.4	blue		pink		coral	pink	pink
0.5			orange	purple	tangerine	orange	orange
0.5	green		red	white	ruby	red	red
0.6	yellow	turquoise	blue	green	aqua	blue	blue
0.7		red	yellow		lemon	yellow	yellow
0.8		pink	green		lilac	green	green
0.9		yellow					
1.0					lime		
1.1		lime	purple			purple	
1.2					violet		
1.3			grey			grey	
1.5							black

brushes and that this should be brought to the attention of the relevant International Standards body.

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Reference

1. The Dentist. New periodontitis patient study finds interdental brushes and rubber interdental picks most efficient in reducing both plaque and gingival inflammation. 2022. Available at <https://www.the-dentist.co.uk/content/news/new-periodontitis-patient-study-finds-interdental-brushes-and-rubber-interdental-picks-most-efficient-in-reducing-both-plaque-and-gingival-inflammation> (accessed May 2022).

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Paediatric dentistry

Brush sampling

Sir, I read with interest the recent correspondence in the *BDJ* entitled 'A COVID complication' by Buxton *et al.*¹ I noticed the quandary for clinicians encountering such situations and the fact that the child was still maintaining oral hygiene with a fluoride-free toothpaste (I assume with a toothbrush).

There is evidence to support the utilisation of toothbrushes as a methodology to perform sampling for SARS-CoV-2 with a reported sensitivity of 60%.² Another alternative to nasopharyngeal swab (NPS) sampling are buccal swabs (sensitivity of 58.9%). These methodologies may be utilised in patients, paediatric included, who seem unamenable to NPS sampling. Toothbrush sampling appears to be painless, economical, requires no specialised training for collection, can be self-collected and involves a device (toothbrush) with which the paediatric patient is familiar inside the oral cavity. Further research into these methods would seem to be relevant.

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References

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2. Gupta S, Mohindra R, Jain A *et al.* Toothbrush as a sampling methodology for detection of SARS-CoV-2. *Oral Dis* 2021; DOI: 10.1111/odi.14122.

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DIY dentistry

Damaging self-treatment

Sir, a patient aged 38 who was an irregular attender, not currently registered with a GDP and therefore unable to access emergency dental care easily, had suffered two days of severe toothache. The patient attended the dental hospital emergency clinic via 111 access complaining of pain from a 'gum flap' and fluids passing from the mouth into the nose after extracting her own teeth with forceps purchased online. Her request was to have the 'flap stitched back into place.'

Medically, the patient had well-controlled epilepsy, asthma, anxiety/depression and chronic back pain. Clinical and radiographic examination confirmed that she had successfully extracted the 13 and 14 and had removed what she thought was a blood clot. This in fact was the gingival and palatal soft tissue and supporting alveolar bone thus creating a significant oral-antral connection (OAC) (Fig. 1).

A microbiology swab of the wound was obtained for culture and sensitivity and the defect was irrigated with normal saline. The patient was given oral hygiene instructions and was advised to avoid nose blowing. Ephedrine nasal drops 1% TDS and

Doxycycline 200 mg on day one followed by 100 mg OD for five days were prescribed. An obturator/suck-down splint was constructed to be worn full-time to cover the defect as it was initially considered to be too large to heal spontaneously. At a six-week review, the patient was no longer experiencing pain or fluid passage into the nose. Clinically there was no OAC evident. Refractory cases may require surgical closure of the defect with a buccal advancement flap or buccal fat pad where soft tissue is deficient.

There is a vast collection of dental resources available online, including demonstration videos of dental treatment techniques and even the possibility to buy equipment and materials. It is not always clear that these are mostly for dentally trained persons resulting in the general population accessing them for 'self-treatment'. Looking at this case in particular, the ability to self-inflict such damage without local anaesthetic brought into question the patient's mental state in response to severe dental pain, the dental services for failing to offer this patient treatment in a timely manner and the quality and ease of access of dentistry-related information online.

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Fig. 1 The patient who had extracted two of their own teeth, along with gingival and palatal soft tissue and supporting alveolar bone, thus creating a significant oral-antral connection