THE SADArite
The South African Dental Association Newsletter
Informing Oral Healthcare Professionals
Bulletin

SADA Professional Advisory Bulletin

- Clinical Bulletin - Periodontal Screening
- Legal Bulletin - e-Signatures signing documents

Circulation date: 24 October 2024

Dear SADA Member

CLINICAL

Periodontal Screening

It is well documented that early identification of periodontal disease is crucial for successful dental treatment and improved patient outcomes. All dental professionals, especially general dentists, should be proactive in identifying individuals at risk and those unaware of their periodontal condition. This involves conducting a thorough screening for signs of periodontitis such as bleeding on probing, periodontal pockets ≥ 4mm and providing appropriate interventions or referrals to a specialist. Unfortunately, periodontal assessments often lack sufficient rigor, and the disease may only be detected in its advanced or severe stages. This may be attributed to factors such as limited chairside time with a patient, insufficient awareness of periodontal screening and management, or a lack of confidence among dental professionals.

We therefore hope that the following bulletin will assist dental professionals in conducting timely periodontal screenings for all their patients at risk of disease in order to avoid high incidence and disease progression. It will focus on the commonly used screening indices in SA i.e. the BPE and CPI.

Background

In 1982, the World Health Organization (WHO) created the **Community Periodontal Index of Treatment Needs (CPITN)**, referred to later as the Community Periodontal Index. **The Basic Periodontal Examination (BPE)** was introduced by the British Society of Periodontology (BSP) in 1986 as a tool to help dentists screen for periodontal disease in adults. In 1992, the American Dental Association (ADA) and the American Academy of Periodontology (AAP) announced the **Periodontal Screening & Recording (PSR)** which was derived from the **Basic Periodontal Examination (BPE).**

How to conduct a periodontal screening

1. Basic Periodontal Examination

- The dentition is divided into 6 sextants and all teeth in each sextant are examined with the exception of third molars.
- A sextant must contain a minimum of 2 teeth to qualify for recording. If one tooth is only present in a sextant, the score for that tooth is included in the total for the adjoining sextant.
- A WHO probe is used (ball end with 0.5mm diameter and black bands from 3.5 – 5mm.)

- Light probing force should be applied to the sulcus or pockets in each sextant and the highest score recorded.
- The scoring codes are recorded as follows:

0	No pockets >3.5 mm, no calculus/overhangs, no bleeding after probing (black band completely visible)
1	No pockets >3.5 mm, no calculus/overhangs, but bleeding after probing (black band completely visible)
2	No pockets >3.5 mm, but supra- or subgingival calculus/overhangs (black band completely visible)
3	Probing depth 3.5-5.5 mm (black band partially visible, indicating pocket of 4-5 mm)
4	Probing depth >5.5 mm (black band entirely within the pocket, indicating pocket of 6 mm or more)
*	Furcation involvement

Note: Both the number and the asterisk * should be recorded if a furcation is detected.

- For patients with codes 0, 1 or 2, the BPE should be recorded annually.
- For patients with BPE codes of 3 or 4, a more detailed periodontal charting is required:
- Code 3: record full probing depths (6 sites per tooth) in the sextant(s) where the code 3 was recorded, in addition to recording the BPE in those sextants with scores 0, 1 or 2.
- Code 4: record full probing depths (6 sites per tooth) throughout the entire dentition.
- As a general rule, radiographs to assess alveolar bone levels should be obtained for sextants where BPE codes of 3, 4 or * are found.

General guidance on interpretation of BPE scores	
0	No need for periodontal treatment
1	Oral hygiene instructions (OHI)
2	OHI, removal of plaque retentive factors, scaling and polishing (SP)
3	OHI, SP, root planing (RP). Complete periodontal charting indicated.
4	OHI, SP, RP. Assess the need for more complex treatment; referral to a specialist may be indicated. Complete periodontal charting indicated.
*	OHI, SP, RP. Assess the need for more complex treatment; referral to a specialist may be indicated. Complete periodontal charting indicated.

- A simplified BPE is recommended for use in children, which involves assessing six index teeth i.e. 16, 11, 26, 36, 31 and 46. A BPE in children under the age of 7 years is not necessary as periodontal problems are rare and index teeth are frequently unerupted. In the 7-11 years age group, the index teeth should be examined for bleeding on probing, calculus and plaque retention and thus only BPE codes of 0, 1 and 2 are applicable in this age group. For children and young adults from 12 – 17 years of age, the full BPE should be performed on the index teeth.
- The limitation of the BPE is that it does not capture clinical attachment loss and cannot identify patients with a history of periodontitis. Clinicians should be mindful that if there are indications of a past history of periodontitis during the initial examination (based on patient history, clinical assessment, and radiographs), a comprehensive periodontal evaluation is necessary, making the use of a BPE unwarranted.

2. Community Periodontal Index (previously CPITN)

- In clinical practice, the dentition is divided into sextants and the highest score in each sextant is recorded after examining all teeth with the exception of the third molars.
- A sextant must contain a minimum of 2 teeth to qualify for recording. If one tooth is only present in a sextant, the score for that tooth is included in the total for the adjoining sextant.
- It evaluates the occurrence of gingival bleeding, presence of supra- and subgingival calculus, periodontal pockets with probing depths between 3.5 – 6mm as well as

clinical attachment loss.

- The assessment is done using a WHO probe.
- The scoring is recorded as follows:

Modified CPI (using a UNC-15 probe)	
0	Healthy gingiva
1	Presence of bleeding on probing
2	Presence of supra- or subgingival calculus
3	Periodontal pockets of 4-5mm in depth
4	Periodontal pockets 6mm and above in depth
X	Excluded sextant (less than 2 teeth)

General guidance on interpretation of CPI scores	
0	No need for periodontal treatment
1	Oral hygiene instructions (OHI)
2	OHI, removal of plaque retentive factors, scaling and polishing (SP)
3	OHI, SP, root planing (RP)
4	OHI, deep scaling, RP. Assess the need for more complex treatment; referral to a specialist may be indicated.

Clinical Attachment Loss	
0	Attachment loss between 0-3mm
1	Attachment loss between 4-5mm
2	Attachment loss between 6-8mm
3	Attachment loss between 9-11mm
4	Attachment loss more than or equal to 12mm
X	Excluded sextant (less than 2 teeth)

Coding

A periodontal screening is coded for by using code 8707. An appropriate screening tool must be employed and the screening assessment placed on the patient's record.

In conclusion, periodontal screening and proper record keeping is a critical component of comprehensive dental care, playing a pivotal role in the early detection, prevention, and management of periodontal diseases. Dentists are uniquely positioned to identify the initial signs of periodontal issues, which can otherwise progress silently, leading to significant oral and systemic health complications. Regular and thorough periodontal assessments allow for timely intervention, reducing the risk of tooth loss, improving patient outcomes, and enhancing overall well-being. By incorporating routine periodontal screening into everyday practice, dentists not only safeguard their patients' oral health but also contribute to the early diagnosis of conditions linked to systemic diseases, promoting a more holistic approach to patient care.

References

1. Cole E, Ray-Chaudhuri A, Vaidyanathan M, Johnson J, Sood S. Simplified basic periodontal examination (BPE) in children and adolescents: a guide for general dental practitioners. Dent Update. 2014 May;41(4):328-30, 332-4, 337. doi: 10.12968/denu.2014.41.4.328. PMID: 24930254.
2. Sekundo C, Bölk T, Kalmus O, Listl S. Accuracy of a 7-Item Patient-Reported Stand-Alone Tool for Periodontitis Screening. J Clin Med. 2021 Jan 14;10(2):287. doi: 10.3390/jcm10020287. PMID: 33466797; PMCID: PMC7830157.
3. Dhami, Bhageshwar & Thapaliya, Kamal & Shrestha, Dinesh & Bhandari, Bidhan & Gupta, Sujaya. (2021). Periodontal Disease in Patients Visiting a Tertiary Care Dental Hospital: A Descriptive Cross-sectional Study. Journal of Nepal Medical Association. 59. 10.31729/jnma.6463.
4. Albandar JM. Epidemiology and Risk Factors of Periodontal Diseases. Dental Clinics of North America. 2005 July; 49(3): 517-532. doi: 10.1016/j.cden.2005.03.003.

5. British Society of Periodontology. The Good Practitioners Guide to Periodontology. 2016.
6. De Villiers C, Padayachee S, Jeftha A. Exploring the diagnosis and classification of Periodontal disease (and the role of the dentist.) Colgate manuscript.

LEGAL

E-Signatures - Signing documents

Introduction

The usual way of signing documents with a pen and paper is becoming outdated. With many businesses that have online forms that need to be completed and signed, e-signatures are changing the way documents are being signed across all industries. E-signatures are convenient, efficient, and cost-effective, allowing businesses to sign documents from anywhere, at any time.

What are e-signatures?

An e-signature is simply an electronic method of signing a document, contract, or agreement. E-signatures are digital equivalents of handwritten signatures. It can be a scanned image of a handwritten signature, a signature captured on a touchscreen, or a digital signature created using cryptographic techniques.

Legal framework for e-Signatures

The legal recognition of e-signatures is governed by the Electronic Communications and Transactions Act (ECTA) of 2002. This legislation provides a legal framework for e-signatures and outlines the requirements for their validity and enforceability. The ECTA acknowledges the legal validity and enforceability of e-signatures, ensuring that they hold the same weight as handwritten signatures.

In addition, the Accreditation Regulations issued under ECTA regulate the accreditation of authentication products and services in support of advanced electronic signatures.
ECTA distinguishes between the following types of signatures:

1. Electronic signature – contains data attached to, incorporated in, or logically associated with other data and which is intended by the user to serve as a signature. An electronic signature can take various forms, including a typed name in electronic format (e.g. in an email), clicking on the sign button on a website, a manuscript signature (e.g. signed on a tablet computer) or a scanned manuscript signature transformed into digital format.
2. Advanced electronic signature – a signature that has been accredited in accordance with section 37 of the ECTA (i.e. from a process that has been accredited by the Director General of the Department of Communications acting as the South African Accreditation Authority (“SAAA”)).

For all situations where a document is signed by an electronic signature, and where law does not prohibit the document from being signed electronically, the electronic signature will have the same presumption of enforceability as a handwritten signature.

It is normal practice for persons to use electronic signatures in their standard form, unless the law specifically prohibits the use of electronic signatures generally or the law prescribes that an advanced electronic signature is required for the execution of an agreement.

An advanced electronic signature is required in the following circumstances:

- the parties to an electronic transaction have agreed that the type of electronic signature that will be used is an advanced electronic signature;

- the signature of a person is required by law and such law does not specify the type of signature (only in relation to a data message);
- the law requires a signature, statement or document to be notarized, acknowledged, verified or made under oath (if electronic signature/data message is elected);
- the law requires or permits a person to provide a certified copy of a document and the document exists in paper or other physical form (if electronic signature/data message is elected); and
- where a seal is required by law to be affixed to a document and such law does not prescribe the method or form by which such document may be sealed by electronic means.

Accordingly, there are certain documents that should only be signed by an advanced electronic signature when contracting electronically (e.g. suretyship agreements; franchise agreements; and documents to be signed by a commissioner of oaths).

In cases where an advanced electronic signature is required the electronic signature shall be created with a digital certificate issued by an accredited service provider who has confirmed in relation to its service that the electronic signature.

Cases that generally require a traditional signature

Any agreement may be signed with electronic signatures save for the following exclusions:

1. an agreement for alienation of immovable property, as provided for in the Alienation of Land Act 68 of 1981;
2. an agreement for the long-term lease of immovable property in excess of 20 years as provided for in the Alienation of Land Act 68 of 1981;
3. the execution, retention and presentation of a will or codicil as defined in the Wills Act 7 of 1953;
4. the execution of a bill of exchange as defined in the Bills of Exchange Act 34 of 1964 (for example a cheque); and
5. the license of intellectual property, Intellectual Property transfers and employee invention agreements (Patents Act 57 of 1978, the Design Act 195 of 1993, the Trade Marks Act 194 of 1993 and the Copyright Act 98 of 1978).

Requirements for valid e-signatures

To ensure the legal validity of an e-signature, certain requirements must be met. These include the consent of the signatory, the intent to sign, and reliable identification of the signatory.

When Are E-Signatures Legally Binding?

While e-signatures are generally valid and enforceable in case of contracts, agreements and other documents. In certain situations, physical signatures or additional requirements may be necessary. For example, some legal documents, such as wills or documents that need to be notarised, may not be suitable for e-signatures, in the case of dentists, it would be advisable to sign sick notes and prescriptions with physical signatures to mitigate risks.

One key benefit of adopting e-signatures is that they improve efficiency and productivity. E-signatures eliminate the need for printing, scanning, and physical storage, resulting in streamlined document workflows and faster decision-making processes.

Yours in oral health

Dr Tinesha Parbhoo - Head Clinical Support

Punkaj Govan - Head Legal and Corporate

Members wishing to access circulated SADArite and Professional Advisory Bulletins must be logged in as a Member at www.sada.co.za

Go to the Main Menu Item: Publications and Press

Select Members Newsletters

Go to The SADArite or Professional Advisory Bulletins

to download or read online

Download this and other Professional Advisory Bulletins