The BSP Implementation of the 2017 World Workshop Classification of Periodontal Diseases:

Lessons Learned One Year On

Over a year since the BSP outlined their adaptation of the 2017 World Workshop Classification of Periodontal Diseases, now might be a good time to reflect on how well it has fared in clinical practice. The project discussed below was winner of the BSP Audit Prize 2020 and will be presented at the BSP Conference in 2021.



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I work at an independent dental practice in Cardiff, South Wales where both general and specialist led dentistry is provided. Care is centred around regular recall, with particular emphasis on periodontal maintenance utilising a team approach. I joined the practice as an associate prior to lockdown, so with clinical duties greatly reduced and no strong desire to learn a second language, or begin a much needed home fitness regime, I undertook an audit to assess the implementation of the BSP adaptation of the new classification.

When the new classification was first announced in 2019, the practice focussed on providing 'in-house' guidance to its dentists and dental care professionals in an effort to rise to the BSP's challenge of its full implementation within three years of release. I audited the periodontal records of a complete patient list belonging to a single dentist as of January 2020, exactly one year after the introduction. I had in mind two main aims: firstly, to assess the degree of implementation of the new classification and secondly to reflect upon any lessons learned from its repeated use.

896 patient records were analysed. I found that 91% of patients had been diagnosed according to the BSP adaptation of the new classification, which was pleasing. Many of the subjects who had not received a diagnosis either had attendance records outside the timeframe or were awaiting radiographic assessment. 75.5% of the cohort were non-periodontitis patients and of these, 76% were diagnosed with 'clinical gingival health'. This and further data will be presented in detail at the BSP Conference in 2021, but perhaps more intriguing than the figures were the subtle changes in the overall approach to assessment and management of each patient which the classification influenced.

An Emphasis on Bleeding on Probing

Bleeding on probing (BOP) is a central component of the new classification, particularly when assessing the non-periodontitis patient. A bleeding score is essential for each patient, as without one it would be impossible to determine whether the patient exhibits clinical gingival health (defined as BOP % <10%). I found that this emphasis fundamentally changes the conversation with the patient. Rather than attempting to explain a series of ordinal codes as designated by the BPE, patients can be provided with a tangible, easy to understand percentage score of bleeding.

As a direct consequence of the new BSP implementation, patients and clinicians have a clear goal to strive for, as well as a firm basis for determining personalised treatment plans and recall intervals. In our collective experience, this increased understanding empowers the patient themselves to lead their own care. It also highlights the importance of treating gingivitis vigorously, rather than as a reversible, and, therefore less significant condition compared to periodontitis.

Bleeding is a proxy for inflammation and periodontal destruction is driven by the inflammatory process. It is also well understood that many of the plausible biological mechanisms associating periodontal conditions with systemic disease are related to chronic inflammation. This includes the well-established relationship with diabetes, as well as emerging links to cardiovascular disease and cognitive decline. Therefore, it is entirely fitting that BOP and the inflammatory burden of the periodontium are considered paramount when assessing patients.

Periodontal Audit and the New Classification

The new classification, when properly implemented, creates vast amounts of tangible data which may not have been routinely recorded previously. This data facilitates assessment of patients in the diagnosis of clinical gingival health, as well as specific periodontal diseases. As bleeding scores have been undertaken for every patient, the changing pattern of periodontal status over time may be monitored in selected patient population. The classification represents an opportunity for dental practices to audit the outcomes of periodontal pathways of care and enables comparison both within single practice groups and regionally, even down to the level of individual clinicians, as is the case in this audit.

A New Era in Periodontology

Periodontal medicine is entering a new era, heralded by the new classification. Public perception of the importance of periodontal health is shifting, as evidence of causal relationships between periodontal disease and a whole raft of major health conditions becomes increasingly apparent. It is important that the foundational systems we use to classify and diagnose our patients reflect the latest scientific understanding of the disease and it is our experience that the new classification is exemplary in this regard. Reducing inflammatory burden is key. Recognising this in our approach to classification through assessing presence of health or disease and stability or instability of the condition using the BOP is a huge leap forward. It has never been more possible for patients to clearly visualise their periodontal status, while providing clinicians with a firm foundation to construct effective, evidence-based treatment and maintenance protocols.

Lessons learnt:

- 1. The BSP adaptation of the new classification of periodontal disease is fit for purpose, implementable in a dental practice setting and lends itself to audit.
- 2. Its emphasis on monitoring levels of periodontal inflammation through measurement of BOP is readily grasped by patients.
- 3. The new classification empowers the patient and provides a clear framework for structuring treatment plans and maintenance protocols.

