Tooth whitening: a dental hygienist's perspective

Diane Rochford discusses the benefits of delegating tooth whitening treatments to dental hygienist and therapists

Tooth whitening has become the most common elective dental procedure and an integral part of dental practices in the UK today. Over the past 10 years the demand for a 'Hollywood' smile has been steadily increasing (Kwon et al, 2015).

The use of peroxide-based materials such as hydrogen peroxide and carbamide peroxide for home and in-surgery tooth whitening have proven safe and effective when the treatment is supervised by a dentist (Kwon et al, 2015).

In 2008, the General Dental Council (GDC) added tooth whitening to the prescription of a dentist to the scope of practice for dental hygienists, dental therapists, and clinical dental technicians. As a dental hygienist working clinically, the author has experienced many different approaches and attitudes towards the utilisation of knowledge and skills when providing tooth whitening treatment for patients.

Therefore, this author's aim is to discuss how a team approach to the successful implementation of tooth whitening programmes can deliver safe and appropriate treatment, ensuring patients achieve good, consistent results, whilst increasing productivity and profitability for the dental practice.

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ENHANCED CPD

TOPICS
Cosmetic dentistry
Tooth whitening
Treatment planning

LEVEL
Intermediate

Educational aims and objectives

This article highlights how delegation and the use of dental hygienists/therapists' scope of practice can deliver safe and appropriate whitening treatments, and increase practice productivity and profitability.

Clear expected outcomes

Answering the questions on page 50, worth one hour of verifiable CPD, will demonstrate that the reader understands the benefits of implementing the skills of the dental team in the tooth whitening treatment workflow.

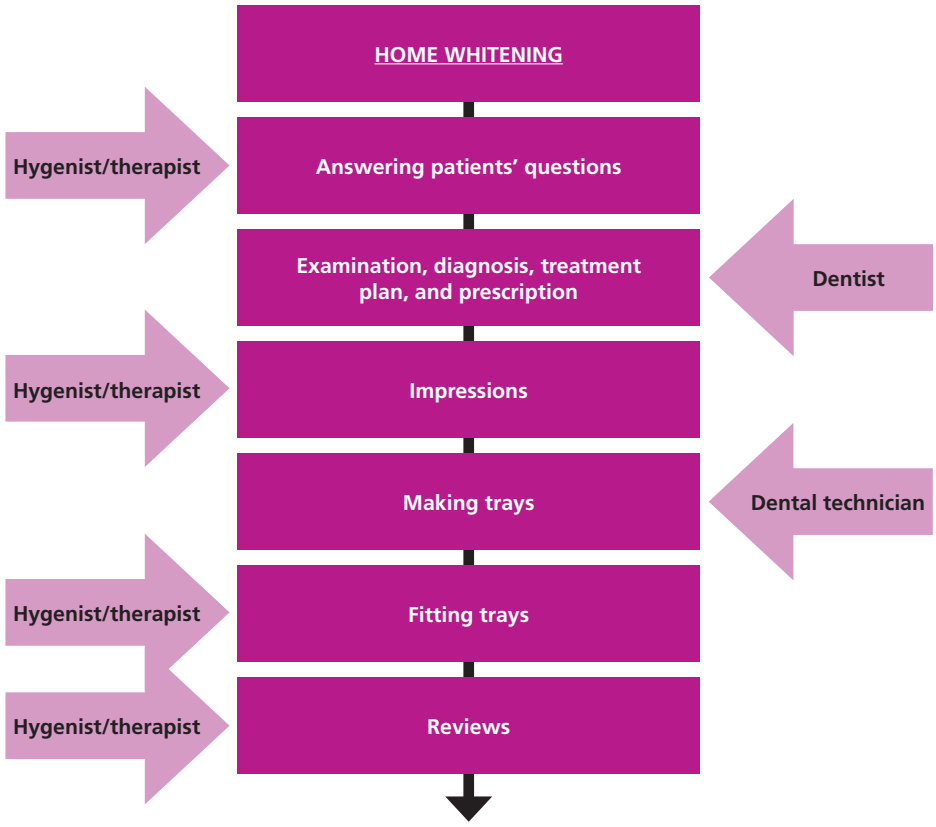

Figure 1: Delegation of workflow for home whitening to the dental hygienists/therapist

The team

Common themes that define a team describe groups of people with complementary skills working together to achieve a goal. Successful teams work well together are enthusiastic and dedicated to their patients and practice (Greenwall and Jameson, 2012).

So where do we begin? Reviewing the GDC scope of practice document is a good place to start. Tooth whitening is listed as an additional skill, requiring further training. Since there is no specific guidance, Dental Protection (2014) recommends training should be designed with dental hygienists and dental therapists in mind, that the wider aspects of tooth whitening are considered, including legal and ethical implications.

Learning and developing new skills that can ultimately benefit patients and the practice, whilst expanding the clinician's scope of

Figure 2: The initial patient discussion should include an introduction to possible treatment options

Figure 3: Applying gel to the tray

Figure 4: Showing the patient how to administer tooth whitening treatment at home

practice is empowering.

Indemnity companies and other organisations, provide good laymen's versions of the EU Directive concerning the use of tooth whitening products. Follow the guidance provided to design safe and appropriate tooth whitening programmes and protocols for the team and patients to follow (Figure 1).

Patients often ask during a dental hygiene visit about the possibility of whitening their teeth, providing an ideal opportunity to answer their questions. The initial discussion should focus on:

- Patient expectations. A patient whose expectations exceed the reality of what can be achieved often leads to disappointment (Greenwall, 2001). Good communication is essential to achieve realistic expectations
- Initial shade. With the removal of extrinsic stains, according to Haywood (2007) this is an ideal time to assess the baseline colour or determine any discolourations that are genetic, acquired, or a result of ageing
- Introduction to the treatment options. The advantages and disadvantages of the possible treatment options, their commitment to the treatment, and a brief explanation of the protocols that need to be followed (Greenwall, 2001) (Figure 2).

Examination, treatment, and review

Before treatment can begin, a requirement of the 2012 EU legislation is that 'a dentist should carry out an examination to determine a patient's suitability, ensuring there are no risk factors or oral pathology' (Council of European Dentists, 2012). An 'appropriate examination' should consist of:

- Review of the medical history
- Intraoral examination
- Diagnosis of enamel discolourations or defects to determine the most appropriate treatment
- Photographs and any necessary radiographs.

Some practices offer 'in-surgery' treatment using 6% hydrogen peroxide. Gingival irritation and trauma is most commonly caused by leaky or failed gingival barrier protection (Li et al, 2013). Dental hygienists and dental therapists should be appropriately trained before carrying out these procedures.

Following a written prescription based on the examination and clinical diagnosis by the dentist, treatment by dental hygienists or dental therapists can begin. According to Haywood (2003), 10% carbamide peroxide in custom made trays has been shown to be the safest, most effective treatment, to achieve long lasting results.

The sequence of appointments required are firstly to take impressions for whitening trays (a separate visit can be scheduled, or extra time added to a dental hygiene visit is often more convenient for the patient and productive for the practice).

When the trays are received, ensure they are a good and comfortable fit. Then demonstrate how to safely apply the gel (Figure 4). The patient also practices applying the gel and seating the trays (Figure 5). The gel should be dispensed according to the prescription. The prescription should clearly state hydrogen peroxide or carbamide peroxide and the percentage, such as '10% carbamide peroxide.'

Clearly explain the treatment protocol the patient should follow, and make sure to record the shade and take photographs.

Approximately 50% of patients will experience some degree of sensitivity during

Figure 5: Fitting the tray

	DENTIST	DENTAL HYGIENIST/THERAPIST
Primary procedure High £ value (eg, £500+)	Crown Bridge Implants Aesthetic procedures Tooth whitening Non-surgical therapy (RSD)	Fissure sealants Restorations (therapist) Tooth whitening
Secondary procedure Lower £ value (eg, £1-£499)	Examinations Composite fillings Extractions	Adult hygiene visit Children's hygiene visit Supportive periodontal therapy
Tertiary procedures No £ value	Seating of a crown Suture removal Adjusting a filling, crown etc	Suture removal Tooth whitening review visits

Table 1: The scope of practice for dentists and dental hygienists/therapists according to procedure type

treatment (Li and Greenwall, 2013). Protocols for effective management of sensitivity should be explained to the patient to offset any apprehensions the patient might have (Greenwall, 2017).

Typically, the review visit is a short appointment to monitor the patient's progress, answer any questions or concerns, dispense gel (according to the prescription), record the shade and take photographs. Prolonged cases such as tetracycline staining require encouragement as there are significant changes at the beginning, which then slows as the treatment progresses (Newson and Greewall, 2008).

Productivity and profitability

The fee for tooth whitening should reflect the quality of treatment provided and be profitable for the practice (Figure 6). The same can be applied to in-surgery whitening procedures; however, the cost of following up with home trays should also be considered.

A balanced schedule reduces high and low production days. Scheduling a variety of procedures to meet a daily production goal increases productivity and reduces financial and physical stress for the entire team, resulting in appreciative patients (Jameson, 2016).

Pre-blocking the schedule for half the daily goal in primary procedures will ensure the goal can be achieved each day (Figure 7).

Conclusion

'Delegate as much as possible, so the dentist can focus on doing what only a dentist can do' (Jameson, 2016) (Table 1).

Team meetings are an ideal opportunity to establish roles and responsibilities, identify areas of knowledge and skill development that require further training. GDC and indemnity providers' guidance documents relating to tooth whitening can help to implement strategies that allow for successful delegation.

Whilst this article focuses on delegation to dental hygienists and dental therapists, the same principles can be applied for dental nurses and the front desk team.

Team work and delegation promotes a positive and nurturing environment, respect and trust amongst the entire team, so that patients receive the excellent treatment and service they expect and deserve.

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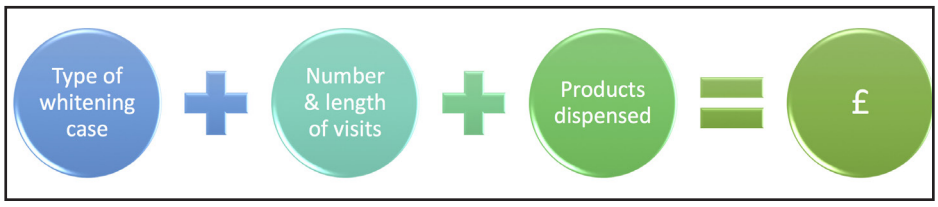

Figure 6: Working out tooth whitening fees

	Wednesday	
	LG	DR
9am	Molar composite £185	Children's Hygiene, Exam & 2 seals £140
10am	Emergency	Hygiene Visit £75
11am	2 crown preps £750 each	Hygiene, Exam & BW's £130
12noon		Hygiene & Exam £110
	Lunch	Lunch
2pm	Treatment Plan Discussion	Active Periodontal Therapy £140
3pm	2 anteriors composites £185	Hygiene visit & Whitening Review
4pm	New Patient Consultation £195	Hygiene visit & imps for whitening £575
5pm	Premolar composite £185	New patient Hygiene visit £85
	£2250.00	£1255.00
	Dentist Production Goal £2250	Dental Hygienist Production Goal £1100

Figure 7: Scheduling increases productvity

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