NHS

Commissioning Standard: Dental Care for People with Diabetes

NHS England and NHS Improvement

Equality and Health Inequalities Statement

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and
- Given regard to the need to reduce inequalities between patients in access to, and outcomes from, healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.

Commissioning Standard:

Dental Care for People with Diabetes

Publishing approval number: 000078

Version number: 1.0

First published: July 2019

Prepared by: OCDO

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1 Foreword

NHS England produced the NHS Long Term Plan[1] to set out a shared view of the challenges ahead and the choices about health and care services in the future; it applies to all services including dentistry.

The International Diabetes Federation and European Federation of Periodontology have set out a clear roadmap for the co-morbid relationship between periodontitis and type 2 diabetes and their joined-up management.

This Commissioning Standard will support the local implementation of pathways for patients to enable the benefits of timely and effective periodontal management on oral health and importantly general health to be realised.

2 Executive summary

It is now clear that there is a bidirectional link between diabetes and periodontitis (gum disease)[2]. People with type 2 and type 1 diabetes are at greater risk of developing periodontitis and people with periodontitis are at greater risk of developing type 2 diabetes. In addition, effective treatment of periodontitis in people with type 2 diabetes can improve glycaemic control to an extent that can reduce the need for an additional prescribed medication as well as to reduce systemic complications associated with increased glycaemia[3].

People with type 2 and type 1 diabetes (from here on, 'diabetes' which does not specify the type, will refer to both type 1 and type 2 diabetes) need to access effective dental care and local pathways should be developed to support this. This will require local engagement between providers and commissioners of dental services and diabetes services, and the commissioning of dental services with the appropriate skills and competences to deliver the care required.

This document helps guide commissioners to introduce new procurements for existing contracts in a planned way that considers local capacity and capability. In emphasising local resourcing, these standards do not place mandatory requirements on existing providers. The recommended changes outlined in this document relate to new procurements only and will involve redirection of an existing resource.

Planning of services should be underpinned by a needs assessment. In the context of this commissioning standard, an oral health needs assessment should be used to

[1] https://www.longtermplan.nhs.uk/online-version/

[2] https://www.ncbi.nlm.nih.gov/pubmed/28642531

[3] https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12837
https://onlinelibrary.wiley.com/doi/10.1111/j.1600-051X.2011.01764.x
https://www.ncbi.nlm.nih.gov/pubmed/26717883

determine if current dental services for people with diabetes are adequate, given the context above.

Commissioners will then need to work with their Local Dental Network and associated Managed Clinical Networks to redesign services where required, which may involve awareness raising, skill mix review and additional training and competence development.

The views of people with diabetes who will be using the services must be sought at the outset and as information and services are developed.

3 Introduction

This document sets out the Commissioning Standard for dental care for people with diabetes. The purpose of this standard is to ensure that people with diabetes can access effective oral healthcare services with the aim of improving their general and oral health[4].

As national guidance, commissioners are required to implement the requirements contained within this document when procuring new periodontal services. The requirements to conform are also relevant for all current primary care providers.

Commissioners need to work with existing providers and agree a timetable for adoption of these requirements. Commissioners should look to work towards addressing any unmet need and develop a plan to address this. There will also be a need for a local plan to raise awareness in the medical and dental professions and the public on the link between oral health and diabetes.

4 Context

4.1 Diabetes

Diabetes is a life-long condition that is caused by problems with a hormone in the body called insulin which results in the level of sugar (glucose) in the blood to become too high[5]. Most cases are classified as type 1 or type 2. Type 1 diabetes is an autoimmune condition characterized by immune destruction of the insulin producing cells in the pancreas, that results in absolute insulin deficiency. Type 2 diabetes accounts for almost 90% of cases[6], is associated with lifestyle factors such as being overweight or obese, and is characterised by resistance to the action of insulin as well as relative insulin deficiency. Type 2 diabetes tends to occur in later life and around two thirds of cases can be prevented or delayed by maintaining a healthy weight, eating well and being active[7]. Type 2 diabetes is more common in people of African, African-Caribbean and South Asian family origin. It can occur in all

[4] https://www.ncbi.nlm.nih.gov/pubmed/11106011
[5] https://www.nhs.uk/conditions/type-2-diabetes/
[6] https://www.diabetes.org.uk/Professionals/Position-statements-reports/Statistics
[7] https://www.diabetes.org.uk/Professionals/Position-statements-reports/Statistics

age groups and is increasingly being diagnosed in children[8]. Diabetes care is estimated to account for at least 5% of UK healthcare expenditure, and up to 10% of NHS expenditure[9].

4.2 Periodontitis

Periodontitis (gum disease) is a preventable chronic inflammatory disease linked to accumulation of plaque on teeth and gums. Therefore, it can be prevented by good oral hygiene and managing risk factors, for example, smoking or poorly controlled, or undiagnosed diabetes. It is treated by improving self-care and professional cleaning and debridement. Effective oral hygiene, short and long-term maintenance and review are important.

4.3 The link between type 2 diabetes and periodontitis

There is high quality evidence[10] that type 2 diabetes is a risk factor for periodontitis, so people with diabetes are more likely to have gum disease. There is evidence that in people with type 2 diabetes, intensive periodontal therapy involving scaling and root surface debridement can reduce HbA1c (a marker of glycaemic control) at 3-4 months by between 0.27% and 1.03%[11] which might mean the patient does not need a second diabetes medication. People with periodontitis have relatively higher levels of HbA1c, and so may be more likely to develop non-diabetic hyperglycaemia (NDH) and type 2 diabetes.

4.4 Implications of the link between diabetes and periodontitis

People with diabetes need to have support from the dental team to help prevent periodontitis, with early diagnosis and treatment of periodontitis, if it is already established. They need regular surveillance and review to maintain good gum health and spot any potential deterioration as early as possible. All people with periodontitis need to have this treated and then good gum health should be maintained, as above, to help to prevent development of type 2 diabetes. In both cases there is a need to raise awareness of this interrelationship, within the dental, medical and health professions, and in the public.
A link to a summary of exisiting clinical evidence document will be inserted here once it is published[12].

5 Current service provision

5.1 Diabetes services

NHS England's commissioning has moved towards more place based, clinically-led commissioning, and shares or delegates commissioning of primary medical care services to CCGs. The diabetes pathway[13] defines the core components of an

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8 http://pathways.nice.org.uk/pathways/type-2-diabetes-in-adults/type-2-diabetes-in-adults-overview.pdf
9 http://pathways.nice.org.uk/pathways/type-2-diabetes-in-adults/type-2-diabetes-in-adults-overview.pdf
10 https://www.onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12808
11 https://www.onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.12808
12 Please contact england.ocdo-pmo@nhs.net to view the clinical evidence document
13 https://www.england.nhs.uk/rightcare/products/pathways/diabetes-pathway/

optimal diabetes service for people with type 1 or type 2 diabetes, or at risk of developing type 2 diabetes and includes:

- Risk detection
- Diagnosis and initial assessment
- Structured educational programmes
- Annual personalized care planning
- Service referral
- Identification and management of admissions by inpatient diabetes teams

5.2 Dental services

NHS England has responsibility for commissioning all dental services including specialist, community and out of hour's dental services. Under the Standard General Dental Services Contract – July 2018, periodontal treatment is listed as a mandatory service. Currently all dentate adults (those with teeth), who visit a general dental practitioner for routine dental assessment, should expect an oral health needs assessment combining history taking and clinical examination, including screening for periodontitis. Should a patient subsequently be diagnosed with periodontitis they would receive care according to their individual needs. The key components of periodontal treatment in primary dental care are set out in *Delivering better oral health: an evidence-based toolkit for prevention*, third edition, 2014.

- Monitoring of plaque and gingival inflammation to guide oral hygiene advice
- Monitoring of probing (pocket) depths and bleeding on probing to guide:
    - evaluation of health/stability
    - targeting of treatment
- Oral hygiene advice/behaviour
- Debridement:
    - removal of supra and subgingival plaque and calculus,
    - root surface debridement of pockets 5mm and deeper with bleeding on probing

5.3 Advanced periodontal care pathways

It is expected that most general dental practitioners will be able to deliver Level 1 services to diagnose and manage patients with uncomplicated periodontitis (as detailed in Appendix 1). However, current provision and potential gaps in Level 2 periodontal services may need to be addressed.

6 Potential for integrated care pathways

The greatest impact can be achieved by ensuring that all patients with diabetes are sign-posted to a general dental practitioner for periodontal screening. Patients who are diagnosed with periodontitis will then be assessed for care complexity levels and managed accordingly.

6.1 Adults attending General Dental Practice

Currently all dentate adults, who present to a general dental practitioner for routine dental assessment, should expect an oral health needs assessment combining history taking and clinical examination, including screening for periodontitis. Should a patient subsequently be diagnosed with periodontitis they receive care according to their individual needs. The new clinical care pathway intends to complement current care by raising awareness with patients about the link between periodontitis and diabetes.

6.2 Adults attending General Medical Practice

Adults attending their general medical practice are not routinely screened for type 2 diabetes, unless they are deemed “at risk”, or as part of the NHS Health Check. The new clinical care pathway intends to complement current care by raising awareness with patients about the link between periodontitis and diabetes, and signposting to general dental practice.

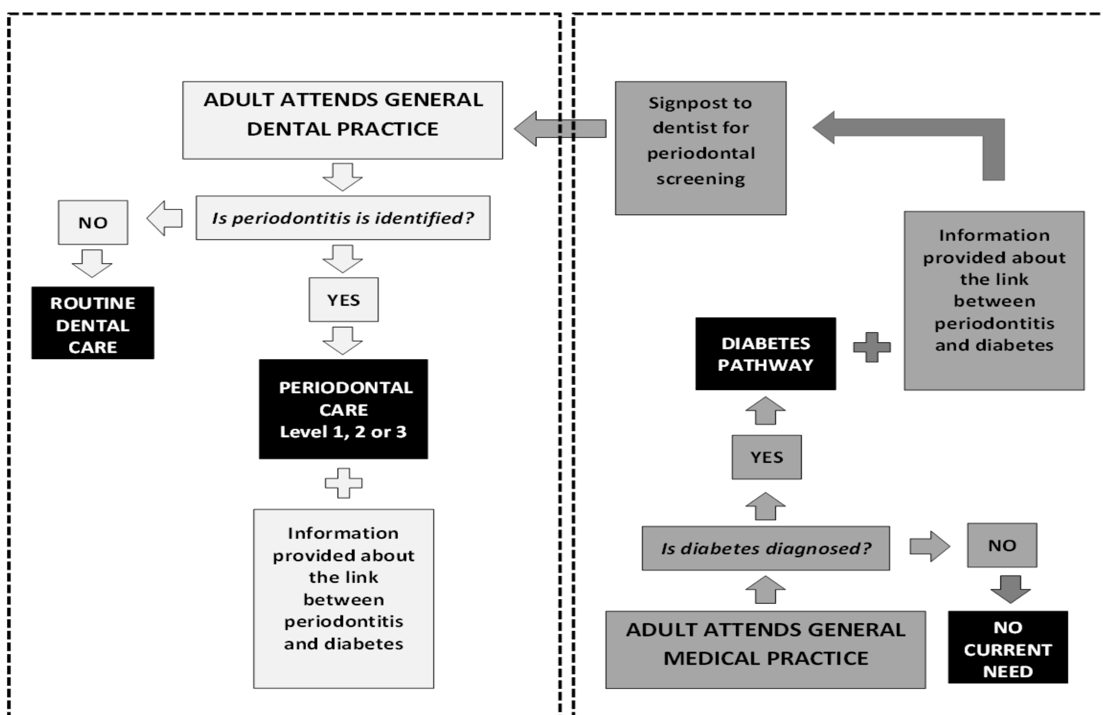

Figure 1: A flowchart detailing clinical care pathway for patients diagnosed with diabetes (from general medical practitioner to general dental practitioner, and appropriate triage – Level 1, 2, or 3).

6.3 Benefits of integrated care pathway

It is proposed that implementation of the standard would lead to the following impacts:

- Greater awareness and access to effective periodontal services for patients.
- Greater detection and effective treatment of periodontitis amongst people with diabetes.
- An economic analysis indicated that if existing treatment of periodontitis within dental practices improves to the level anticipated in the proposed commissioning standard, this would lead to savings in NHS medical care of £124m.

A link to economic modelling report will be inserted here once it is published[14].

7 Commissioning dental care for people with diabetes and periodontitis

Commissioners and Local Dental Networks will need to agree a timeframe for this piece of work, taking account of other local priorities, but being mindful of the potential savings to the NHS and improvement in quality of life for people with diabetes. Once the timeframe is agreed, the local staffing resources can be identified to support the project as this will need building into workplans for commissioners, Local Dental Network and Managed Clinical Network chairs, and members and Consultants in Dental Public Health.

The project will include several workstreams, some of which can run concurrently. Early establishment of a project board is recommended to oversee the process.

Identified workstreams are:

- Needs assessment
- Communication and awareness raising
- Training and development of dental teams
- Development of local care pathway for people with diabetes that includes an oral health assessment
- Potential procurement of periodontal level 2 complexity services

It is recommended that, in addition to those noted above, the project board includes the chair of the local Restorative Managed Clinical Network, or identified member with an interest in periodontal management. Where such an MCN is not yet established, this should be an early priority.

[14] Please contact england.ocdo-pmo@nhs.net to view the economic modelling report.

7.1 Needs assessment

Planning oral healthcare services should be underpinned by a needs assessment. In the context of this commissioning standard, an oral health needs assessment (OHNA) should be used to determine if current dental care for people with diabetes is meeting local oral health needs. The method used should aim to answer the following:

- What is the health problem?
- What is the size and nature of the problem in the population?
- What are the current services?
- What do professionals, patients and the public and other stakeholders want?
- What are the most appropriate and cost-effective interventions?
- What are the resource implications?

The process for undertaking an oral health needs assessment and the broad stages are set out below:

OHNA stages	What might this look like for dental care for people with diabetes
1. Establish a working group	Including, but not limited, to local consultant in dental public health, NHS dental commissioners, dental and medical professionals working with people with diabetes, patient/ public involvement
2. Agree aims, scope and timescales	To describe the oral health needs of people with diabetes within a given geographic region to identify potential unmet need
3. Collate existing needs assessments and other relevant information	National and regional figures for periodontitis prevalence can be found in the Adult Dental Health Survey Periodontal service activity can be requested from BSA to quantify volume of scale and polishes in primary care at both band 1 and 2 levels The National Diabetes Audit (NDA) provides annual prevalence figures for diabetes by CCG, age group (under 40, 40-64, 65-79, 80+ years), gender, IMD and ethnicity
4. Identify and close information gaps on health needs, relevant service activity, workforce, and other resources	Seek out local data on periodontitis prevalence

<table>
<tr><td></td><td>Map intermediate and secondary care periodontal services locally – consider the need to audit these services to explore which aspects of “restorative care” relate to management of periodontitis

Establish if there are any existing combined dental and diabetes care pathways</td></tr>
<tr><td>5. Build a comprehensive picture of needs and resources</td><td>Set out the periodontal health needs of a given population including:
• Prevalence
• Distribution
• Inequalities
• Current services and activities</td></tr>
<tr><td>6. Interpretation of the information to identify unmet needs and agree priorities for potential action to meet these needs</td><td>Set out met and unmet need in relation to levels 1,2 and 3 complexity management of periodontitis
Model the potential impact on unmet need of the potential increased patient flows into dental services from general medical practice</td></tr>
<tr><td>7. Identify shared priorities for action that are locally appropriate and consult on these</td><td rowspan="2">A local implementation group should be convened to set an action plan</td></tr>
<tr><td>8. Action plan to address priorities</td></tr>
<tr><td>9. Implement action plan to meet local needs</td><td rowspan="2">Implementation and evaluation will need to factor both, periodontal and diabetes pathways</td></tr>
<tr><td>10. Evaluate actions</td></tr>
</table>

7.2 Communication and awareness raising

The bidirectional link between diabetes and periodontitis is not currently well known and so it is vital that this is communicated to all stakeholders including patients. The EFP/BSP have developed a suite of resources that could be used for such purpose (please see Appendix 2 for the links to their websites containing these resources).
Local Dental Networks will have developed communication links with local dental practices and so these should be used to raise awareness amongst dental teams first. This could be linked to training and development activity, for example, ensuring all clinical team members have up to date knowledge skills and competences in line with Delivering Better Oral Health.
Once dental practices are engaged they should undertake in-practice audits of the number of patients with diabetes they currently see and ensure these patients are offered regular periodontal surveillance and support.
Communication with GPs and diabetes teams should follow and be undertaken in conjunction with local Diabetes Clinical Networks. These Networks can also assist with communication to people with diabetes and their healthcare professionals. It is essential that the importance of good periodontal, or gum health, is incorporated into the suite of self-care measures that people with diabetes already employ.

7.3 Training and development of dental teams

This should be undertaken in conjunction with the awareness raising discussed above, and the local Restorative MCN, or periodontal champion should be involved in designing training, and development. The value of the whole dental team should be stressed, as training should include patient education and motivation, as well as clinical periodontal assessment and treatment.

Emphasis should be placed on effective treatment of the practice's current patient base with diabetes, or the potential to develop diabetes. Once this is established, the practice will be able to move on to look after patients directed from the care pathway.

The MCN should involve practices in design of short-term and longer-term clinical audits of the effectiveness of patient motivation on self-care and effectiveness of periodontal treatment of periodontal (gum) health.

7.4 Development of local care pathway for people with diabetes that includes an oral health assessment

Once the OHNA has been completed and the local dental practices have been engaged in training and development, the pathway described above can be tailored for local needs and local practices. The key point is that patients with diabetes who do not currently regularly visit a dentist, should be able to quickly and easily find a practice to look after them. This might require a local prioritisation plan for people signposted from the diabetes care pathway. Consideration should be given to use of flexible commissioning to incentivise practices to develop services for people with diabetes.

7.5 Potential procurement of periodontal level 2 complexity services

It is expected that the majority of general dental providers will be able to deliver level 1 services to diagnose and manage patients with uncomplicated periodontitis (levels of complexity can be found in Appendix 1). The OHNA may have identified potential gaps in provision of level 2 periodontal services which may need to be addressed. The MCN should design a clear referral pathway for people with diabetes who require treatment of level 2 complexity. The in-practice audits described above could provide a method to quantify the volume of level 2 services, so that commissioners can plan the procurement required. A hub and spoke model is recommended so that the providers of level 2 complexity care can support a number of general dental practitioners and help them to develop more advanced competences where appropriate.

8 Local implementation example

London region are a case study for early adoption and piloting of the commissioning standard, and as such have formed an Implementation Group for Diabetes and Oral Health Commissioning Standard in London:

- To establish a better knowledge of the bidirectional link between diabetes and periodontitis with GMPs and GDPs.

- To improve the flow of patients with diabetes and/or periodontitis between medical and dental clinical care pathways, leading to improved oral and general health outcomes.

Through the following roles:

- To lobby appropriate support, use local knowledge and networks to enable the aims stated above

- To consider contractual levels and/or initiatives to enable a culture shift for collaboration between the medical and dental professions.

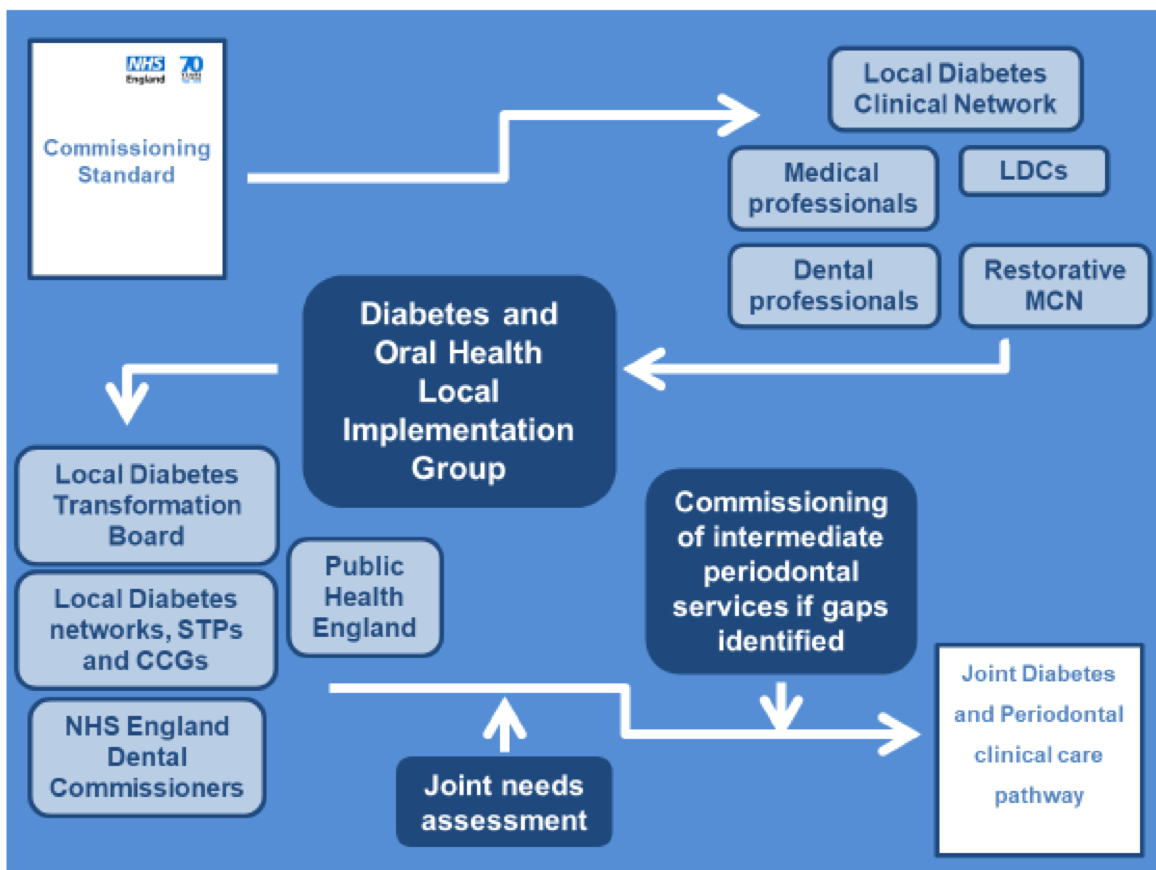

Figure 2: An overview of the proposed engagement process for use when implementing the care pathway locally.

Appendix 1: Complexity criteria for Periodontal Services

Level 1 complexity:
Diagnosis and management of patients with uncomplicated periodontal diseases, including but not limited to:

- Evaluation of periodontal risk, diagnosis of periodontal condition and design of initial care plan within the context of overall oral health needs.
- Measurement and accurate recording of periodontal indices.
- Communication of nature of condition, clinical findings, risks and outcomes.
- Designing care plan and providing treatment.
- Assessment of patient understanding, willingness and capacity to adhere to advice and care plan.
- Evaluation of outcome of periodontal care and provision of supportive periodontal care programme.
- On-going motivation and risk factor management including plaque biofilm control.
- Avoidance of antibiotic use except in specific conditions (necrotising periodontal diseases or acute abscess with systemic complications) unless recommended by specialist as part of comprehensive care plan.
- Preventive and supportive care for patients with implants.
- Palliative periodontal care and periodontal maintenance.
- Any other treatment not covered by level 2 or 3 complexity.

Level 2 complexity:
Management of patients:

- Who, following primary care periodontal therapy, have residual chronic moderate (30-50% horizontal bone loss) periodontitis and residual true pocketing of 6mm and above.
- With certain non-plaque-induced periodontal diseases e.g. virally induced diseases, auto-immune diseases, abnormal pigmentation, vesiculo-bullous disease, periodontal manifestations of gastrointestinal and other systemic diseases and syndromes, under specialist guidance.
- With aggressive periodontitis as determined by a specialist at referral.
- With furcation defects and other complex root morphologies when affected teeth are strategically important.
- With gingival enlargement non-surgically, in collaboration with medical colleagues.
- Who require pocket reduction surgery when delegated by a specialist.
- With peri-implant mucositis where implants have been placed under NHS contract.

Level 3 complexity

Triage and management of patients:

- With severe (> 50% horizontal bone loss) periodontitis, aggressive periodontitis and true pocketing of 6mm or more.
- Requiring periodontal surgery.
- Furcation defects and other complex root morphologies not suitable for delegation.
- With non-plaque induced periodontal diseases not suitable for delegation to a practitioner with enhanced skills.
- Peri-implantitis where it is the responsibility of the NHS to manage the disease when implants have been placed under an NHS contract.
- Patients who require multi-disciplinary specialist care (Level 3).
- Where patients of Level 2 complexity do not respond to treatment.
- Non-plaque induced periodontal diseases including periodontal manifestations of systemic disease.

Appendix 2: Resources

This suite of resources was developed by European Federation of Periodontology (EFP) and British Society of Periodontology (BSP).

Please access this link to find EFP's infographic material: https://www.efp.org/

Please access this link to find BSP's infographic material: http://www.bsperio.org.uk/

Glossary

BPE	**Basic Periodontal Examination**
BSP	**British Society of Periodontology**
CsDPH	**Consultant in Dental Public Health**
CCG	**Clinical Commissioning Groups**
DH	**Department of Health**
FYFV	**Five Year Forward View**
GDP	**General Dental Practitioner**
GDS	**General Dental Service**
HbA1c	**Glyceated Haemoglobin Index**

HEE	**Health Education England**
NDH	**Non-diabetic Hyperglycaemia**
PDS	**Personal Dental Service**
GP/GMP	**General Medical Practitioner**
LDN	**Local Dental Network**
MCN	**Managed Clinical Network**
PHE	**Public Health England**