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Periodontics

Specialty Clinical Syllabus

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Foreword

This clinical syllabus sets out the competence required for the attainment of the award of the Certificate of Completion of Specialty Training (CCST) and admission onto the Specialist List for Periodontics and associates with the General Dental Council's (GDC) specialty training curriculum for Periodontics[1]. It was developed in collaboration with the British Society of Periodontology and Implant Dentistry (BSP).

The focus of the syllabus is competence-based which refers to the trainee's capability to perform the specialist's responsibilities and is a move away from the previous task orientated delivery based on a competency framework focussing on the trainee's actual performance in a situation. This change in practice is aimed at meeting the standards expected of a specialist to deliver high quality patient care that is safe, and patient centred amid managing increasing demands and expectations of today's patients within United Kingdom-based provision of health care.

The syllabus aligns with the European Federation of Periodontology Quality Standards[2] for speciality training in Periodontology and maps to the domains of the Membership in Periodontology Examination of the Royal College of Surgeons in the UK[3].

1.0 Introduction

This clinical syllabus is underpinned by the generic professional content of the speciality curriculum as listed by the GDC[4], with ALL professionals expected to be cognisant and compliant with this framework throughout their training. It is assumed that trainees on entrance to specialty training have achieved the basic standard of knowledge and skills in dentistry and the emphasis of the training is becoming a Specialist in Periodontics which is a three-year full-time training programme or four-year part time. Although the focus of the clinical syllabus is periodontology, trainees involved in this training should be exposed to the range of specialities that underpin the discipline thus preparing them to meet the complex and integrated treatment needs of today's young as well as aging population.

Training providers will be expected to fulfil the quality standards established by the GDC[5] and trainers should be familiar with the contents of this clinical syllabus to ensure that the trainee achieves the necessary requirements. The essential components are outlined with an indication of the expected standards and capabilities from all providers. The domains are deliberately kept broad to allow for variation in training opportunities in different institutions whilst recognising the differing experience of trainees at the start of training.

The syllabus sets out a guide for training, encompassing the contents of the specialty curriculum, to ensure that the trainee progresses through a journey of progressive spiral development. Year 1 focuses on acquisition and understanding of core knowledge, skills and behaviours which form the foundations, essential for the development of the trainee's personal learning experience and growth. During year 2 this is consolidated and integrated into the acquisition of skills in analysis, application, adaptation and judgement gaining higher learning towards the end of the year. By year 3, the emphasis will be more on analytical synthesis and critical evaluation of information gathered to predict evidence-based treatment outcomes whilst excelling in clinical expertise underpinned by attributes and behaviours that foster lifelong learning beyond the completion of the training. The simplicity of the syllabus lay out is aimed at making it user friendly for both trainees and trainers with an indicative blueprint of assessments that demonstrate attainment of the capabilities described by generic and speciality specific higher learning outcomes.

2.0: Training Progression

Training progression will be monitored throughout the 3 years. The longitudinal evaluation will be undertaken using programmatic assessment with low and high stakes, thus enabling the development of trainee capabilities and learning experience to be monitored continually throughout training. Formative assessment tools will provide the supporting evidence showing trainee progression moving away from a skill-based approach to a trainee centred/trainee led capability/competence evaluation mentored by the trainer over training duration.

Portfolios (Appendix 7.1) incorporating clinical case, learning and reflective logs are mandatory for monitoring the trainees learning. Completed case, learning and reflective logs which contribute to the trainee's self-awareness will underpin their personal development plans and are essential for monitoring personal growth. Supervised Learning Events (SLEs) which highlight the gaps in learning supported with workplace-based assessments (WPBAs – Appendix 7.2) are essential for tracking the trainee's progressive learning and should include the following:

- Mini Clinical Evaluation Exercise (Mini CEX)
- Case Based Discussions (CBD)
- Directly Observed Practice Skills (DOPS)
- Evaluation of Clinical Events (ECE)
- Care Assessment Tool (CAT)
- Multisource Feedback (MSF)
- Multiple Consultant Reports (MCR)
- Entrustable Professional activities (EPAs)

The summative assessment at the end of each year will be the Annual Review of Competence Progression (ARCP) with submission of the documentation required onto the Intercollegiate Surgical Curriculum Programme (ISCP – Appendix 7.3). The end of training will be marked by the satisfactory completion of the Speciality Membership Examination of the Royal Colleges[6.]

3.0: Domains

The key clinical domains outline the standards and describe the capabilities a trainee is expected to achieve over the duration of the three-year period of training demonstrating a longitudinal spiral progression of learning and personal development in knowledge, skills and capabilities using an evidence-based approach.

The generic capabilities, which focus on professionalism, communication and leadership, underpin the specialty focussed clinical domains and the trainee must recognise and demonstrate an appreciation of their importance throughout their training. Trainees must also be familiar with the GDC's professionalism principles[7] and embed and abide by them in their day-to-day practice. Trainees should also remember that where possible all assessment and management plans and strategies undertaken at patient or professional level should be evidence based and informed by relevant guidelines (e.g. S3 Clinical Practice Guidelines published by the British Society of Periodontology[8,9]).

Each domain has subdomains with descriptors that provide guidance on the expected minimum standard of attainment a trainee should be aiming to achieve. The descriptors are intentionally left broad to allow flexibility within the training catering for the range of skill sets and capabilities of trainees. During year 1, it is expected that trainees will be more at the competency level where they are acquiring the set of knowledge, skills and abilities understanding their application and consolidating these as he/she progresses into the second and third years. During these years, it is expected that the trainee will gain competence in analysis and synthesis of information making judgements, decisions and evaluating outcomes, demonstrating that they are competent and capable by the end of their training to deliver services at the level of a specialist periodontist. The trainees learning journey should follow a spectrum of synchronous and asynchronous experiences to enrich their learning embedding the principles of lifelong learning into daily practice underpinned by professional attributes defined by the GDC's professionalism principles.

The trainer will support and guide the trainee throughout their training, moving from a trainer supported journey during year one to a trainee led journey by year three. At the end of the training, trainees will be proficient in the synthesis and analytical approach to the delivery of

clinical patient care (figure 1):

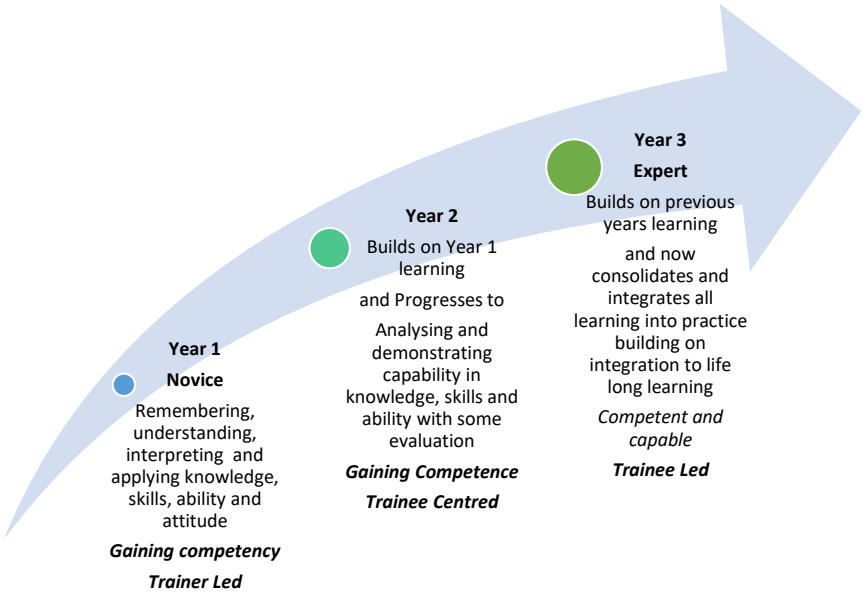

Figure 1: diagrammatic representation of trainee progression through training

The syllabus should ideally be delivered using a combination of theoretical, simulated and clinical placements. The balance of this will vary by provider accepting these variances as long as the end-product of a specialist in periodontics with the requisite knowledge, skills, abilities and capabilities to manage patients with specialist periodontal treatment needs is achieved.

A proposed update on the competences and learning outcomes of specialist training in periodontics has been recently published[10]. The contents of this clinical syllabus, independently, have encompassed some of these recommendations which also include the move towards a continuous longitudinal assessment of trainees.

3.1.0: Basic Biological Sciences

3.1.1: Oral anatomy, histology and physiology of periodontal and peri-implant tissues

3.1.1.1: Describes and demonstrates a comprehensive knowledge of the anatomy (including the development of teeth and their surrounding structures), histology and physiology of the tissues of the oral cavity and related structures
3.1.1.2: Describes and explains the macro and micro anatomy and histology of periodontal tissues in particular the gingival crevice and differentiates between the periodontal tissues around teeth and dental implants
3.1.1.3: Describes and interprets the composition and physiology of the plaque biofilm and analyses its relevance and role in inflammatory disease including its effect on disease progression and treatment outcomes
3.1.1.4: Describes, interprets and assembles the importance and role of gingival tissue phenotype (biotype) in periodontal and peri-implant disease manifestation
3.1.1.5: Interprets and distinguishes the different types of bone defects and ridge deformities and appraises their relevance to managing periodontal and peri-implant disease and tooth replacement options
3.1.1.6: Recognises, describes and appraises the presence of anatomical and developmental anomalies (eg root grooves, cervical-enamel projections, furcations, enamel pearls, etc.) and synthesizes their effect on the periodontium
3.1.1.7: Explains, describes and discriminates between the anatomy, biology and histopathology at the cellular level of peri-implant tissues and periodontal tissues
3.1.1.8: Validates and explains the evolution of dental implants including endo-osseous implants their differences and compares and contrasts the range of systems including materials, types, design, configuration and components
3. 1.1.9: Describes the concept of osseointegration and differentiates between the factors affecting osseointegration and evaluates their impact on outcome
3.1.1.10: Describes and illustrates an understanding and application of the soft tissue healing around dental implants and their transmucosal components.
3.1.1.10: Recognises and classifies different surgical and prosthetic implant components, their rationale and application
3.1.1.11: Describes comprehensively and discriminates between aspects of medicine and systemic disease relevant to periodontal and peri-implant diseases and vice versa

3.1.1.12: Demonstrates, explains and evaluates the interactions at macroscopic, microscopic and cellular level between periodontal and peri-implant health and systemic disease

3.1.2: Microbiology and immunology of periodontal and peri-implant diseases

3.1.2.1: Describes and differentiates the role of biofilms and their relevance to inflammatory and infective periodontal and peri-implant diseases, as well as systemic health
3.1.2.2: Analyses and explains the relationship of microbiomes to inflammation that results in periodontal and peri-implant disease
3.1.2.3: Quantifies, evaluates and interprets the techniques available for analysis of oral microbiota (including culture sensitivity) and immunological processes justifying their application and use in daily practice
3.1.2.4: Explains the formation of calculus, its composition and summarises its role in periodontal and peri-implant disease

3.1.3: Pathogenesis of periodontal and peri-implant diseases

3.1.3.1: Describes and differentiates the pathogenesis of all periodontal and peri-implant diseases demonstrating knowledge of infectious, inflammatory and immunological processes in disease progression (including the cell to cell interactions and role of inflammatory markers, cytokines and growth factors)
3.1.3.2: Comprehensively explains and applies the principles and processes of wound healing (including extraction sockets) and regeneration of both soft and hard tissues, appraising its relevance in the management of periodontal diseases, peri-implant diseases, tooth extractions and tooth replacements.
3.1.3.3: Recognises, understands and differentiates between healthy and diseased periodontal and peri-implant tissues
3.1.3.4: Determines and analyses the different pathogenic mechanisms of non-biofilm induced gingival disease and other conditions affecting the periodontium
3.1.3.5: Analyses and appraises the aetiology and pathogenesis of non-biofilm related mucogingival defects and associated conditions
3.1.3.6: Differentiates and distinguishes between the incidence and prevalence of periodontal and peri-implant diseases

3.1.4 Pharmacology as it applies to periodontal and peri-implant diseases

3.1.4.1: Appraises, proficiently prescribes when appropriate and administers medications for the management of preoperative, operative and postoperative pain and anxiety
3.1.4.2: Critically appraises, evaluates, discriminates against and justifies the choice of different adjuncts including medications, understanding their modes of action and efficacy, used in the management of periodontal and peri-implant disease
3.1.4.3: Distinguishes between the mechanisms, application and effects of the different medicaments used in the prevention and treatment of periodontal and peri-implant diseases
3.1.4.4: Recognises, analyses and evaluates the effect of drugs used in the management of systemic disease on the periodontium
3.1.4.5: Describes and illustrates a comprehensive understanding of the different biomaterials, barriers and biologically active materials used in management of periodontal and peri-implant diseases.

3.2.0: Diagnosis and Treatment Planning

3.2.1: *History Taking*

3.2.1.1: Gathers, applies, categorises and assesses appropriate and relevant information to the patient concerns, including the medical, social and dental history using a structured approach
3.2.1.2: Assesses, evaluates and appraises the gingival tissue phenotype (biotype) and local factors including ridge anatomy and interprets its relationship to the issues of concern
3.2.1.3: Assembles and synthesises the role of behavioural, environmental and other relevant risk factors and their influence on the presentation and management of periodontal and peri-implant diseases
3.2.1.4: Assimilates the information gathered to derive an understanding of the patient's expectations and their effect on the presenting complaint and management
3. 2.1.5: Discriminates between different risk factors that influence the aetiology, progression and response to treatment of periodontal and peri-implant diseases

3.2.2: Clinical Assessment

3.2.2.1: Analyses and interprets the extraoral clinical findings in relation to the presenting complaints
3.2.2.2: Adopts a systematic approach to the clinical examination of the soft tissues, periodontium, teeth and associated structures and analyses the gathered information, synthesises the treatment options and integrates the information into an agreed treatment plan for the patient
3.2.2.3: Evaluates and interprets periodontal indices and associated findings in relation to the diagnosis and presenting concerns
3.2.2.4: Collects, assembles and synthesises information gathered about the dentition, teeth, occlusion and prosthetic replacements and the impact on the periodontal and peri-implant health
3.2.2.5: Gathers and evaluates the required information in addition to that collected during routine assessment, for the prosthetic and surgical planning of implant retained restorations taking into consideration the anatomical factors including smile assessment and ridge contour and occlusion

3.2.3: Investigations

3.2.3.1: Considers and justifies the use of different investigations (e.g. microbiological, haematological, radiographic, histological, study casts, sensibility testing etc.) and their relevance to support the clinical findings differentiating the appropriateness of each to the periodontal and peri-implant condition
3.2.3.2: Recognises and discriminates between the different types of biopsies, their appropriateness in conjunction with other investigations and interprets the relevance of the findings to the diagnosis
3.2.3.3: Demonstrates comprehensive knowledge and contrasts the different imaging techniques (e.g. conventional radiography, cone beam CTs) and interprets the findings when managing periodontal and peri-implant disease
3.2.3.4: Illustrates the ability to perform different radiographic and cone beam images, interprets critically the images taken applying the findings to the clinical assessment and diagnosis

3.2.3.5: Discusses and appraises the use of different types of computerised tomograms and their relevance and interpretation in the management of periodontal diseases, missing teeth and peri-implant disease
3.2.3.6: Describes and compares the use of digital technology in the management of patients with periodontal disease, missing teeth and peri-implant disease

3.2.4: Diagnoses and prognoses

3.2.4.1: Analyses, assembles and interprets the information gathered to formulate diagnoses including all diseases and conditions affecting the periodontium taking into consideration the different risk factors
3.2.4.2: Appraises the different behavioural and risk factors in relation to the diagnosis and their influence on the prognosis
3.2.4.3: Identifies and predicts the importance of the site and patient level prognosis and relates this to the patient expectations
3.2.4.4: Proficient at deriving a prognostic evaluation of the individual teeth and the overall dentition with reference to the patient expectations
3.2.4.5: Produces and applies the prognosis evaluating tooth, endodontic and periodontal factors and their interaction to the management of periodontal and peri-implant diseases

3.2.5: Classifications

3.2.5.1: Demonstrates and appraises the evolution, epidemiology and classifications including the 2018 classification for periodontal and peri-implant disease, and potential future modifications to the classification system
3.2.5.2: Critiques the various classifications evaluating the appropriateness for periodontal diseases and peri-implant diseases.
3.2.5.3: Applies the 2018 classification (and/or future updates) when diagnosing periodontal and peri-implant diseases summarising the limitations and its implications on disease management
3.2.5.4: Explains, illustrates and categorises the classification systems used to describe gingival recessions, tooth mobility and furcation lesions and their application to clinical practice

3.2.5.5: Explains, illustrates and categorises the classification systems used to describe alveolar bone atrophy and extraction sockets and their application to clinical practice
3.2.5.6: Describes and discusses the different types of altered passive eruption and their application to clinical management

3.2.6: Treatment Planning

3.2.6.1: Assembles and evaluates information to develop comprehensive risk-assessed treatment options taking into consideration the medical and social history to manage the patient's concerns identifying the most predictable option
3.2.6.2: Formulates an integrated treatment plan taking into consideration the findings and complexity using an evidence-based approach to justify the strategy to manage periodontal and peri-implant diseases
3.2.6.3: Analyses the need for an inter-disciplinary and cross-specialty approach with other dental and medical specialties
3.2.6.4: Assesses and plans the management of failing teeth and their replacement in the periodontally compromised patient
3.2.6.5: Differentiates between the choice of tooth replacement options separating each option and its predictable outcome recognising the need for additional soft and hard tissue grafting to improve predictability.
3.2.6.6: Infers the most appropriate treatment plan to manage and address the patient's concerns aligned with the clinical findings and investigations
3.2.6.7: Synthesizes, constructs and executes a treatment plan to manage a complex case justifying the staging of the periodontal management
3.3.1.8: Demonstrates capability to modify agreed treatment plans in the presence of patient noncompliance or poor control of risk factors including economic risk.
3.3.1.9: Distinguishes between the relevant use of analogue vs digital technologies to support treatment planning in periodontics and implant dentistry
3.3.1.10: Appraises and applies the relevant guidelines when formulating treatment plans demonstrating an understanding of the limitations.

3.3.0: Treatment Modalities

3.3.1: Non-surgical management

3.3.1.1: Relates the importance of social, behavioural management and risk factor control when predicting treatment outcomes
3.3.1.2: Describes and shows proficiency in estimating the outcomes of non-surgical therapy
3.3.1.3: Identifies and summarises the range of equipment (non-powered and powered) used for non-surgical therapy discriminating the effectiveness, benefits, limitations of each
3.3.1.4: Illustrates an understanding of the application of relevant treatment guidelines where available
3.3.1.5: Compares, analyses and contrasts the outcomes of various protocols for non-surgical therapy justifying choice to address the patients concerns
3.3.1.6: Describes and evaluates the application of newer techniques e.g. minimal invasive non-surgical techniques in the management of periodontal disease.
3.3.1.7: Recognises, devises and communicates the plan to manage the post treatment complications with the patient
3.3.1.8: Compares and contrasts the choice of adjuncts used during non-surgical management of periodontal and peri-implant diseases using an evidence-based approach (where possible) justifying choice
3.3.1.9: Describes and evaluates the role of lasers, photodynamic therapy and others in the non-surgical management of periodontal and peri-implant diseases
3.3.1.10: Explains and justifies the rationale for the use of adjunctive topical or systemic antimicrobials in the management of periodontal and peri-implant diseases
3.3.1.11: Exhibits the skills and capabilities required for the execution of the non-surgical management of periodontal and peri-implant diseases

3.3.2: Surgical Management

3.3.2.1: Rationalises and systematically develops an appropriate surgical treatment plan with predicted outcomes taking into consideration the range of surgical procedures available for managing inflammatory periodontal and peri-implant diseases
3.3.2.2: Analyses the patient-related factors and estimates the impact of these on the surgical plan outcome
3.3.2.3: Describes and identifies the different tooth- and site-related anatomical factors that influence the surgical decision making

3.3.2.4: Predicts and plans, or reacts to, adverse unforeseen and foreseen post-surgical outcomes and discusses these with the patient
3.3.2.5: Rationalises the use of regenerative surgical intervention formulating the plan and predicting the outcome based on the defect and site morphology defending the choice of technique
3.3.2.6: Describes the range of materials and techniques used for regeneration and assesses the relevance of each to the site being treated
3.3.2.7: Explains, categorises interprets and justifies the choice of suturing material and technique relevant to the type of surgery being undertaken
3.3.2.8: Recognises when to choose a resective surgical approach vs a non resective approach justifying choice
3.3.2.9: Compares and contrasts the indications for gingivectomy vs flap procedure with osseous recontouring when addressing excess gingival tissue
3.3.2.10: Rationally assesses the different options available for managing a furcation comparing the outcomes of each
3. 3.2.11: Rationalises the choice of biopsy method for gingival lesions taking into consideration the sequalae of such procedures
3.3.2.12: Demonstrates the skills and capabilities of undertaking a range of surgical procedures to manage periodontal and peri-implant diseases
3.3.2.13: Explains, analyses and justifies the choice of follow up protocols following surgical intervention for periodontal and peri-implant disease.

3.3.3: Dental Implants

3.3.3.1: Discriminates between and understands the different surgical protocols used for the placement of dental implants considering the various patient-related and clinical factors influencing choice
3.3.3.2: Recognises the main different types of implant systems and their indications, and the surgical protocols used
3.3.3.3: Identifies and formulates a surgical plan that takes into consideration the patient-related and clinical factors affecting surgical outcomes and the need for augmentation
3.3.3.4: Systematically evaluates and justifies the approach considered for the surgical placement of implants considering the bone and soft tissue as well as restorative factors

3.3.3.5: Differentiates between the types of augmentation, devising a plan that reflects knowledge and understanding of the predicted outcome
3.3.3.6: Formulates and undertakes the agreed surgical treatment along with augmentation taking into consideration the patient-related factors
3.3.3.7: Prepares for and has the foresight and ability to manage unforeseen complications during surgical placement
3.3.3.8: Interprets and draws a mitigation plan and manages post-surgical complications
3.3.3.9: Recognises and explains the anatomical limitations of, and shows an understanding of, the need for sinus augmentation to facilitate implant placement and the associated risks
3.3.3.10: Recognises and executes the appropriate non-surgical and surgical interventions to manage peri-implant disease
3.3.3.11 Demonstrates knowledge and applications of extra-alveolar implants e.g. zygomatic implants in the oral rehabilitation of patients

3.3.4: Mucogingival management

3.3.4.1: Synthesises the range of surgical options for the management of gingival recessions (including suturing techniques and post-operative care) and evaluates the appropriateness of the procedure to address the intended treatment objective
3.3.4.2: Describes and analyses the predictability of the planned treatment considering patient- and site-related risk factors
3.3.4.3: Rationalises the choice and use of different types of grafts and associated materials and techniques to achieve the intended treatment objective
3.3.4.4: Identifies potential risk factors that influence the treatment outcome and explains their management
3.3.4.5: Appraises and demonstrates the capability of executing the appropriate surgical intervention to manage mucogingival defects
3.3.4.6: Interprets and evaluates the need for soft tissue enhancement procedures around dental implants at different time points and justifies the rationale
3.3.4.7: Identifies the need and justification for other soft tissue procedures to facilitate aesthetic treatment outcomes

3.4.0: Treatment Outcomes

3.4.1: Supportive Periodontal Therapy (SPT)

3.4.1.1: Demonstrates comprehensive knowledge for the rationale and importance of supportive periodontal therapy in treated patients with periodontal and peri-implant disease and devises a plan customised to the patient needs
3.4.1.2: Develops and implements a SPT (maintenance) plan that emphasises the importance of patient compliance and behavioural and risk factor management to sustain treatment outcomes
3.4.1.3: Identifies and describes the indicators that highlight the need for early intervention during a SPT programme
3.4.1.4: Recognises and devises a plan for SPT accounting for the limitations in a non-complaint patient taking into consideration the implication of such decisions

3.4.2 : Working with the dental team

3.4.2.1: Demonstrates and understands the scope of the hygienist/therapists and has the ability to lead and communicate required information during the joint management of a patient's periodontal or peri-implant disease, and effectively shares information that fosters patient-centred care
3.4.2.2: Shows capability of prescribing the required treatment plan when working with the hygienist/therapist.

3.4.3: Complications

3.4.3.1: Assesses, evaluates, analyses and manages unforeseen and foreseen complications when managing patients with periodontal and peri-implant diseases to minimise risk and maintain safety to patients and others
3.4.3.2: Recognises, evaluates and defends the management of biological and mechanical complications in patients with implant-retained fixed and removable prostheses

3.4.4: Evidence and guidelines

3.4.4.1: Identifies and critically evaluates the relevant literature and its application to the clinical situation being cognisant of evolving technological developments

3.4.4.2: Differentiates between success and survival rates and their relevance to predicted treatment outcomes for periodontal and implant patients
3.4.4.3: Interprets the published evidence and guidelines in relation to periodontal and peri-implant diseases and their management, incorporating it into daily practice
3.4.4.4: Discriminates against the published success and survival data for implant patients and its interpretation to the predicted implant treated outcome
3.4.4.5: Appraises and applies the published guidelines for periodontal disease and dental implants to daily practice e.g. S3 treatment guidelines

3.5.0: Interdisciplinary Management

3.5.1: Perio-oral medicine interface

3.5.1.1: Demonstrates knowledge and describes the effects of various oral mucosal disorders on the periodontium and their relationship with periodontal diseases
3.5.1.2: Appraises, recognises and outlines the impact of unstable periodontal disease on the stability of the mucosal disorder and its management
3.5.1.3: Describes and relates the influence of autoimmune oral disorders on periodontal health and considers their long term effects on the dentition
3.5.1.4: Explains the relevance of different syndromic conditions and their effect on the periodontium
3.5.1.5: Devises a plan that demonstrates recognition of the effect of oral mucosal conditions on the management and long term outcome of periodontal and peri-implant diseases
3.5.1.6: Explains the relevance of and evaluates the importance of different investigations when managing periodontal disease

3.5.2: Perio-endo interface

3.5.2.1: Explains the different classifications and their limitations for perio-endo lesions and describes their effect on the diagnosis and management of these lesions
3.5.2.2: Analyses and assesses the challenges when diagnosing a perio-endo lesion and their consequences on treatment choices and prognosis
3.5.2.3: Gathers and assembles non-clinical and clinical information proficiently and appraises it to make a diagnosis

3.5.2.4: Develops a treatment strategy and plans and manages the lesion based on the findings utilising the range of endodontic, non-surgical and surgical periodontal options adopting an inter-disciplinary approach when appropriate
3.5.2.5: Applies an evidence-based approach to establish predictability and balances risk vs outcome when considering the options

3.5.3: Perio-ortho interface

3.5.3.1: Recognises and develops the rationale for integrated care with orthodontics when managing a periodontally compromised dentition including drifting teeth and deranged (mal)occlusions against the risks of moving periodontally compromised teeth whilst justifying the timing of orthodontic intervention
3.5.3.2: Stabilises the periodontal health first prior to orthodontic intervention explaining the rationale and the need for long term retention post-orthodontic intervention
3.5.3.3. Describes and prepares the patient for the effect of orthodontic tooth movement on the longevity of periodontally compromised teeth.

3.5.4: Perio-prosthodontic (Restorative) interface

3.5.4.1: Recognises and interprets the effect of trauma from the occlusion on the periodontium, appraises its influence on treatment outcome, formulating appropriate management strategies
3.5.4.2: Describes, explains and interprets the effects of the range of prosthetic procedures including that of poorly designed individual restorations, removable dentures, fixed partial dentures and implant-retained prostheses on the management of a periodontal patient.
3.5.4.3: Explains the clinical features of a cracked tooth manifesting as a periodontal problem and generates a risk analysed plan for its management
3.5.4.4: Shows the periodontal challenges of managing traumatised tooth and assesses the replacement choices
3.5.4.5: Recognises and compares different types of root resorption and their clinical presentation and illustrates their effect on the periodontium, being aware of the different types and their management

4.0: Blueprint and Indicative Assessments

The focus during specialty training is for the trainee to progressively develop capabilities, moving from knowledge-based skills acquisition to becoming confident, capable and competent clinicians on completion (Figure 2).

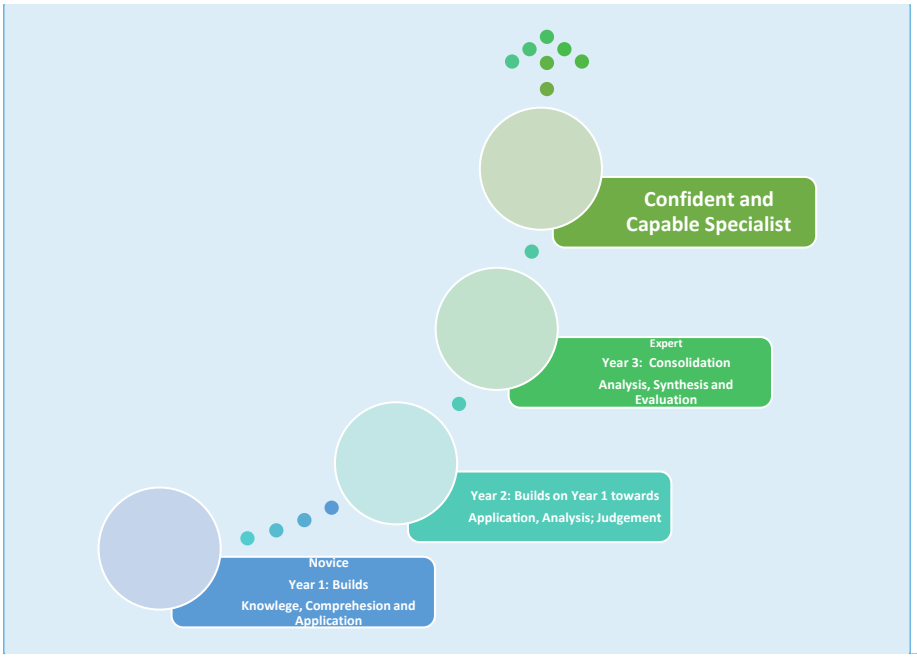

Figure 2: diagrammatic representation of capabilities development through training

Commented [UD1]: Need to put some photos showing each stage - tried to look but could not identify so need to thing about this one

Supervised Learning Events (SLEs) have been mainly used in Foundation training[11] but with the changing focus of this curriculum they have a role in speciality training. These events help the trainee and trainer through educational developmental discussions using reflective practice with repeated cycles of experience, reflection, conceptualisation, and application with feedback which supports the trainee in enhancing improvement in performance with an upwards trajectory. WPBAs will underpin this journey with a range supporting the learning journey. These will feed into the longitudinal programmatic assessment showing development over the 3 years. The indicative WPBAs are Mini Clinical Evaluation Exercise (Mini CEX), Case Based Discussions (CBD), Directly Observed Practice Skills (DOPS), Evaluation of Clinical Events (ECE), Care Assessment Tools (CAT), Multisource Feedback

(MSF), Multiple Consultant Reports (MCR) and Entrustable Professional activities (EPAs) and their use is shown in the table below.

Domains	**Blueprint**							
Year 1: Focus on Minicex, CBD; some DOPx; MSF	**Year 2, 3: More Emphasis on CBD, DOPS, ECEs, CATs which test analytical and Judgement Skills**							
Portfolio; Case Log; Learning Log								
Self Awareness; Reflection; Feedback								
	Mini Cex	**CBD**	**DOPS**	**ECE**	**EPA**	**CAT**	**MCR**	**MSF**
3.1: Basic Sciences								
3.1.1: Oral anatomy, histology & physiology of periodontal & peri-implant tissues	X	X	X	X				
3.1.2: Microbiology & immunology of periodontal and peri-implant diseases	X	X		X			x	
3.1.3: Pathogenesis of periodontal and peri-implant diseases	X	X	x	X			x	
3.1.4 Pharmacology as it applies to periodontal and peri-implant diseases	X	x	x	x				
3.2: Diagnosis and Treatment Planning								
3.2.1: History Taking	X	x		x		x	X	
3.2.2: Clinical Assessment			x	X		x	X	
3.2.3: Investigations	X	x		x		x	X	
3.2.4: Diagnoses and prognoses		x	x		x		x	
3.2.5: Classifications	X	x				x		
3.2.6: Treatment Planning		x			x	x	x	X
3.3: Treatment Modalities								
3.3.1: Non-surgical management		x	x	x			X	
3.3.2: Surgical management		X	x		X	x	x	
3.3.3: Dental implants		x	x		x		X	
3.3.4: Mucogingival management		x	X		x		X	
3.4: Treatment Outcomes								
3.4.1: Supportive Periodontal Therapy		x			X		x	
3.4.2: Working with the dental team		x			X		X	
3.4.3: Complications		x	x	x	x		X	
3.4.4: Evidence and guidelines	x			x	x	x	x	
3.5: Interdisciplinary Management								
3.5.1: Perio-oral medicine		X			X	X	x	X
3.5.2: Perio-endo		X			X	X	X	X
3.5.3: Perio-ortho		x			X	X	X	X
3.5.4: Perio-prosthodontic		x			x	x	X	x

5.0: Mapping of syllabus

5.1A: GDC's Generic Professional Content Learning Outcomes

Domain 1: Professional knowledge and management Outcome	
1.1. Demonstrate they can communicate effectively and respectfully with patients and others and with colleagues	***Effectively and respectfully communicate with patients, relatives, carers, guardians by:*** • consulting with patients and carers in a sensitive and compassionate way • giving clear and accurate verbal/oral information with information the recipient wants and needs and avoiding unnecessary jargon • giving clear, accurate and legible written information in a form the recipient can understand, with information the recipient wants and needs and avoiding unnecessary jargon • making accurate and contemporaneous records of observations or findings in English • making information accessible and inclusive by adapting written and verbal communication and tone and adopting appropriate techniques and communication aids/resources to suit others as appropriate • assessing their communication support needs and implementing appropriate methods to reduce communication barriers. For example, by using email, video conferencing tools, or any other communication tools suitable for individuals with disabilities or impairments and specifically with patients, relatives, carers, guardians, and others • demonstrating ability to communicate effectively and sensitively when delivering bad news • recognising own limitations and works within limits of capabilities. • Competency in obtaining informed consent ***Effectively and respectfully communicate with colleagues by:*** • promoting and effectively participating in multidisciplinary, inter-professional team working • communicate effectively with referrers regarding patient consultation and treatment • ensuring continuity and coordination of patient care and/or management of any ongoing care through the appropriate transfer of information demonstrating safe and effective handover, both verbally and in writing
1.2. Demonstrate that they can make decisions, while maintaining professional behaviour and judgement	***They should do this by:*** • maintaining appropriate situational awareness and sensitivity to the impact of their comments and behaviours on others (emotional intelligence) • influencing, negotiating, continuously re-assessing priorities and effectively managing complex, dynamic situations and exploring and resolving diagnostic and management challenges
1.3. Demonstrate they can deal with complexity and uncertainty	***They should do this by:*** • maintaining appropriate situational awareness and sensitivity to the impact of their comments and behaviours on others (emotional intelligence) • influencing, negotiating, continuously re-assessing priorities and effectively managing complex, dynamic situations and exploring and resolving diagnostic and management challenges
1.4. Recognise their legal responsibilities and be able to apply in practice any legislative requirements relevant to their jurisdiction of practice	***They should do this by:*** • understanding, and adhering to, the principles of continuing professional development • understanding relevant guidance and law including that relating to equality and diversity, employment, health and safety, data protection etc, with an appreciation that legislation may differ between England, Scotland, Wales and Northern Ireland • understanding information governance, data protection and storage and the legal parameters relating to digital and written records in the context of their workplace • recognising the need to ensure that publicly funded health services are delivered equitably

1.5. Recognise and work within the context of a health service and healthcare systems, understanding that systems may differ between England, Scotland, Wales and Northern Ireland	***They should do this by:*** • understanding the structure and organisation of the wider health and social care systems, including how services are commissioned, funded and audited • demonstrating an appreciation of how services are deemed to be clinically effective, cost effective or restricted such as on a 'named patient' basis • understanding how resources are managed, being aware of competing demands and the importance of avoiding waste • having an awareness of how services are held publicly accountable through political and governance systems, public scrutiny and Judicial Review • recognise and work towards achieving carbon neutrality within the context of understanding the importance of sustainability in design and delivery of services and demonstrating application of these principles in practice
1.6. Recognise and demonstrate their role in health promotion, disease prevention and dental population health	***They should do this by:*** • understanding the factors affecting health inequalities as they relate to the practise of dentistry being willing and able to work to reduce health inequalities relevant to the practise of dentistry • understanding national and local population oral health needs • understanding the relationship of the physical, economic and cultural environment to health and its impact on patients and patient outcomes • understanding the role of national and local public health organisations and systems and how the role of a dental specialist supports these organisations in improving the public's dental health
1.7 Recognise the importance of, and demonstrate the ability to practise, person centred care (PCC)	• Understanding that patients are partners with their health care providers o providing balanced information about treatment options o eliciting the patient's concerns, values and preferences o offering support to the patient to help them to reach a decision and making that final decision together. including shared decision making (SDM)
Domain 2: Leadership and Teamworking	
2.1. Demonstrate understanding of the importance of personal qualities within leadership (focus on self)	***They should do this by:*** • understanding a range of leadership principles and styles and being able to apply and adapt them in practice in a way that is relevant to the work context • understanding team dynamics, behaviours and personalities with insight and awareness of own behaviours and their effect on others. Relevant model: NHS Leadership Academy: the nine leadership dimensions
2.2. Demonstrate understanding of the importance of working with others both within their specialty and the wider healthcare system (working with others).	**They should do this by:** • being able to seek out the views of others in maintaining and improving specialist services • being able effectively to lead/chair multidisciplinary and interprofessional meetings • undertaking safe and effective patient handover, both verbally and in writing • demonstrating an understanding of leadership responsibilities as a clinician and why effective clinical leadership is central to safe and effective care • showing awareness of clinical leadership responsibilities and why effective clinical leadership is central to safe and effective care • being confident about challenging and influencing colleagues and the orthodoxy where appropriate • being able to lead the process of exploring and resolving complex diagnostic and management challenges • leading the formal appraisal process for their teams
2.3. Demonstrate the importance of planning and an understanding They should do this by: 10 of managing dental specialist services	***They should do this by:*** • understanding and being able to work effectively within the relevant being NHS funding, structures and pathways in their local healthcare system in relation to specialist dental services and the healthcare services they interface with,

	• understanding how to identify, mitigate and manage risk, including understanding local and national risk reporting structures
Domain 3: Patient safety, quality improvement and governance	
3.1. Recognise a professional and statutory duty of candour and act accordingly within established governance, legal and regulatory systems, including equality and diversity	***They should do this by:*** • understanding how to raise safety concerns appropriately through local and national clinical governance systems. • understanding how to raise concerns where there is an issue with patient safety, dignity or quality of care • demonstrating a commitment to learn from patient safety investigations and complaints • understanding the process of root cause analysis for investigating and learning from patient safety incidents • demonstrating honesty and candour regarding errors in patient care • demonstrating familiarity with relevant patient safety directives • understanding the importance of sharing and implementing good practice
3.2. Recognise the impact of human factors on the individual, teams, organisations and systems	***They should do this by:*** • understanding of effects of teamwork, tasks, equipment, workspace, culture and organisation on human behaviour and abilities and the application of that knowledge in clinical settings • protecting patients and colleagues from risks posed by problems with personal health, conduct or performance • demonstrating an understanding of the learning by reporting and sharing these experiences locally and widely
3.3. Design and employ quality improvement They should do this by: 11 measures that improve clinical effectiveness, patient safety, care or experience	***They should do this by:*** •using a range of quality improvement methodologies to improve dental services and improve patient care • demonstrating understanding the importance of patient and public involvement in decision-making when changes to services are proposed • engaging with all relevant stakeholders in the planning and implementation of change • working with others to effectively measure and evaluate the impact of quality improvement interventions and their impacts on the wider systems • demonstrate knowledge of additional challenges related to oral health inequalities in minority ethnic populations and other groups with protected characteristics in the UK, assess and recognise impact of cultural and language and other barriers and strategies for oral health promotion
3.4. Act to safeguard patients, particularly children, other young people and vulnerable adults in accordance with the requirements of appropriate equality and diversity legislation	***They should do this by:*** • recognising the individual oral health needs of patients with physical, sensory, intellectual, mental, medical, emotional or social impairments or disabilities, or with a combination of these factors • understanding the responsibilities and needs of carers as they play an increasing role in healthcare provision • recognising and taking responsibility for safeguarding vulnerable patients • understanding when it is appropriate and safe to share information on a patient
1.5 Immediate Life Support	Demonstrate competency and undertake annual training in Immediate Life Support
<u>Domain 4: Personal education, training, research and scholarship</u>	
4.1. Demonstrate that they can plan and deliver effective education and training activities	***They should do this by:*** • providing safe clinical supervision of learners • providing effective educational supervision of learners, including giving supportive, developmental feedback to learners 12 • seeking and respecting patients' wishes about whether they wish to participate in the education and training of learners • evaluating and reflecting on the effectiveness of their educational activities and changes to improve practice

	• promoting and participating in inter-professional learning (including with members of the wider healthcare team in dentistry and in other healthcare professions) • demonstrating an ability to use a range of teaching methods for individual and group teaching, including face to face and online teaching and the use of simulation and other technology enhanced learning methods
4.2. Demonstrate that they can critically appraise and interpret scientific/academic literature and keep up to date with current and best practice	***They should do this by:*** • demonstrating an ability to critically appraise evidence • interpreting and communicating research evidence and data to support patients and colleagues in making informed decisions about treatment • appreciating the role of both qualitative and quantitative methodological approaches in scientific enquiry • demonstrating an understanding of the strengths and limitations of different approaches to gathering research evidence • conducting literature searches and reviews to inform their professional practice • locating and using clinical guidelines appropriately • demonstrating an understanding of stratified risk and personalised care
4.3. Understand what is required to participate in research	***They should do this by:*** • demonstrating understanding of clinical research design, ethics processes and research governance (GCP)

5.1B: GDC specialty specific content

5.0 Key clinical skills	
5.1	Demonstrate competence to undertake the examination and diagnosis of patients presenting with routine and complex Periodontal treatment needs.
5.2	Demonstrate competence to undertake the development of outcome-based treatment strategies for patients presenting with routine and complex Periodontal treatment needs.
5.3	Demonstrate competence to undertake the health promotion for patients presenting with routine and complex Periodontal treatment needs
5.4	Demonstrate competence to provide the non-surgical management of patients presenting with routine and complex Periodontal treatment needs
5.5	Demonstrate competence to provide the surgical management of patients presenting with routine and complex Periodontal treatment needs.
5.6	Demonstrate competence to provide periodontal plastic surgery for patients presenting with routine and complex Periodontal treatment needs.
5.7	Demonstrate competence to provide dental implant surgery for patients either independently and/or part of a multi-disciplinary team that provides an optimal health outcome
5.8	Demonstrate competence to manage peri-implant diseases and conditions for patients either independently and/or as an appropriate member of a multi-disciplinary team.
5.9	Demonstrate competence to manage periodontitis as a manifestation of systemic diseases and conditions affecting periodontal tissues either independently and/or as part of a multi-disciplinary team.
5.10	Demonstrates understanding of the importance and implications of the interrelationship between Periodontics and other clinical disciplines.

5.2: EFP curriculum & quality guidance

Domain I. Professionalism

Major Competence: Professional behaviour:	**A specialist must be proficient in a wide range of skills, including investigative, analytical, problem solving, planning, communication, presentation, team building and leadership skills and *has to demonstrate a contemporary knowledge and understanding of the broader issues of* dental practice. The specialist should fully understand and implement these issues in clinical practice.**
Supporting competences:	***A specialist in periodontology must:*** •Be proficient at displaying appropriate professional behaviour and communication towards all members of the periodontal team and the referring dental practitioner, since part of the periodontal services may be delegated to other members of the dental team, mainly dental/oral hygienist/therapist/GDP. This delegation, however, must be undertaken under the leadership of the periodontist who is responsible for the diagnosis, treatment planning and overall periodontal care of the patient. •Be competent at critically evaluating the scientific literature, updating their knowledge base and evaluating scientific and technological developments as they arise. The specialist should demonstrate commitment to the maintenance of high levels of professionalism and continuous training of the periodontal team. •Be competent at managing and maintaining a safe working environment and working with other members of the periodontal team with regard to health and safety and clinical risk management, since cross-infection control is of great concern due to invasiveness of most periodontal procedures.
Major Competence: Ethics and Jurisprudence:	**A specialist must display knowledge of the content and have a thorough understanding of the moral and ethical responsibilities involved in the provision of care to individual patients, to populations and communities. The specialist must display knowledge of contemporary laws applicable to the practice of dentistry.**
Supporting competences	***The specialist in periodontology must:*** •Be proficient at selecting and prioritizing treatment options that are sensitive to each patient's individual needs, goals and values, compatible with contemporary methods of treatment, and congruent with an appropriate periodontal, oral and general health care philosophy, acknowledging that the patient is the centre of care and that all interactions, including diagnosis, treatment planning and treatment, must focus on the patient's best interests. The main goal of periodontal care is the reinstitution of periodontal health to insure the longevity of the natural dentition. •Be critical towards their own achievements in the light of the complexity of some periodontal conditions. •Be competent in the application of the principles of regulatory law and ethical reasoning and professional responsibility as they pertain to the practice of periodontics.
Domain II. Communication and interpersonal skills	
Major Competence:	**A specialist must be proficient to communicate effectively, interactively and reflectively with patients, their families and carers, and with other health professionals involved in their care.**
Supporting Competences	***The specialist in periodontology must:*** •Be proficient at establishing a patient–dentist relationship that allows the effective delivery of periodontal treatment, since long-term treatment outcomes depend on patient compliance, both with self-performed preventive measures and with appropriate supportive therapy. •Be proficient in identifying patient's expectations (needs and demands) and goals for periodontal care, since the patient should participate in the therapeutic decision, once he/she is provided with all the relevant information. •Be proficient in sharing information and professional knowledge with both the patient and other professionals and specialists in other dental and medical disciplines, verbally and in writing. •Be proficient at working with other members of the periodontal team, since the communication with the hygienists and dental assistants is particularly relevant for the successful therapy outcome. Have comprehensive knowledge

	of behavioural risk factors for periodontal diseases and methods for their modification (including tobacco, alcohol, and diet).
Domain III. Knowledge base, information, information literacy, clinical sciences and clinical skills	
Major competence: Basic knowledge and critical thinking	**A specialist in periodontology must have comprehensive knowledge of the basic sciences relevant to dentistry in general and to periodontology in particular. Moreover he/she must be proficient in all areas of clinical periodontology.**
Supporting Competences	***The specialist in periodontology must:*** •Have comprehensive knowledge of the biomedical sciences relevant to dentistry in general and to periodontology in particular. •Should have knowledge to be able to integrate all aspects of clinical and public health dentistry into the practice of periodontics. •Have comprehensive knowledge of those aspects of medicine relevant to periodontics and should be competent to interact with the respective health care providers. •He/she should have comprehensive knowledge of all possible interactions between oral and systemic diseases and be competent to manage the periodontal problems of the medically compromised patient. •He/she must be competent in the application of the principles of regulatory law and ethical reasoning and professional responsibility as they pertain to the practice of periodontics. •Have comprehensive knowledge of the historical development of periodontics. •Be competent at critically evaluating the scientific literature, updating their knowledge base and evaluating scientific and technological developments as they arise. •Be competent in posing pertinent research questions and hypothesis •Be competent in designing scientific experiments Be competent in writing a literature review •Be competent in writing a research paper •Have knowledge in the statistical analysis of research data
Major competence: Diagnosis, treatment planning and patient management	**A specialist in periodontology must be able to evaluate the relevant clinical conditions in such a way that a comprehensive treatment plan can be designed and appropriate treatment, taking into consideration the individual patient needs and expectations, can be provided**
Supporting Competences	***The specialist in periodontology must have:*** •Comprehensive knowledge of the anatomy, histology and physiology of the tissues of the oral cavity and related structures. •Comprehensive knowledge of oral microbiology with emphasis on the following: the nature, composition and physiology of plaque biofilm and its relationship to inflammatory periodontal and periimplant diseases; techniques to identify microorganisms, their application and utility in periodontal practice; calculus formation. •Comprehensive knowledge of infectious, inflammatory, immunological and genetic processes in oral diseases with emphasis on the pathogenesis of periodontal and periimplant diseases. •Comprehensive knowledge of the principles of wound healing and regeneration. •Comprehensive knowledge of the classification and epidemiology of the periodontal and periimplant diseases •Comprehensive knowledge of imaging techniques and their interpretation as they are related to the diagnosis of periodontal diseases and for implant therapy. •Knowledge of behavioural/life style risk factors for periodontal diseases and periimplant and methods for their modification (including tobacco use, alcohol consumption, and diet). •Proficiency in diagnosing abnormalities in the anatomy and morphology of periodontal periimplant, and oral mucosal tissues that may compromise periodontal health, function or aesthetics, identifying the conditions, which may require management.

	•Proficiency in determining a patient's aesthetic requirements and determining the degree to which those requirements/desires can be met. This is particularly relevant when recommending periodontal plastic surgical procedures or pre-prosthetic procedures •Proficiency in the collection and interpretation of all data necessary to establish the diagnoses, including all diseases and conditions affecting the periodontium, peri-implant tissues and neighbouring structures. •Proficiency in determining prognosis and developing a comprehensive periodontal treatment plan, including implant therapy, and to communicate effectively to patients the nature of their periodontal health status and treatment needs. •Proficiency in the selection and prescription of medications for the management of preoperative, operative and postoperative pain and anxiety and be familiar with the appropriate sedation techniques that can be useful in the most complex periodontal surgical procedures
Major competence: Establishment and maintaining periodontal/oral health	**Be proficient in the full scope of non-surgical and surgical periodontal and implant therapy. Be proficient in providing each patient with an appropriate, tailor made maintenance program.**
Supporting Competences	***The specialist in periodontology must:*** •Be proficient in all methodologies for plaque biofilm control. •Be proficient in educating patients the aetiology and prevention of periodontal, periimplant and mucosal diseases and to motivate them to assume responsibility for their periodontal health. •Be proficient in all aspects of non-surgical therapy. •Be proficient in the mechanisms, application, effects and interactions of medications used for the prevention and therapy of periodontal and periimplant diseases. •Have comprehensive knowledge of the mechanisms, effects and interactions of medications used for the management of systemic diseases that may affect periodontal and periimplant tissues and surrounding structures. •Have comprehensive knowledge of the effects and interactions of medications used for the management of systemic diseases that may affect the outcome of periodontal and periimplant surgical interventions. •Have comprehensive knowledge of the periodontal-systemic relationships. •Have comprehensive knowledge of the influence of forces (trauma, parafunction, orthodontic forces etc.) on the periodontium and related structures and their management. •Be proficient in all surgical techniques used in periodontics and implant dentistry, their indications and contraindications, advantages and disadvantages. •Have comprehensive knowledge of the interrelationship of periodontitis to pulpal disease and the various approaches to treatment. •Have comprehensive knowledge of the interrelationships of orthodontic, restorative therapies and periodontal treatment. •Have comprehensive knowledge of periodontal supportive therapy. •Be proficient in surgical implant therapy, including site development, surgical placement and maintenance. •Be proficient in evaluating the results of periodontal treatment and establishing and monitoring a maintenance programme, in co-operation with other members of the dental team, including the evaluation of likely risk factors. •Be proficient in methods for soft and hard tissue reconstruction. •Be proficient in the treatment of all periimplant disease

6.3: Mapping of syllabus to GDC and EFP Curricula

Although the syllabus maps across the full range of the domains listed in the specialty specific content, the table below gives an overview where subject matters are covered in more depth accepting there is cross over.

Domains		
Syllabus	**GDC Speciality**[1]	**EFP**[4]
3.1: Basic Sciences		
3.1.1: Oral anatomy, histology & physiology of periodontal & peri-implant tissues	5.1, 5.4,5.5, 5.6, 5.7, 5.8	D II/DIII (all areas); R4
3.1.2: Microbiology & immunology of periodontal and peri-implant diseases	5.1, 5.7, 5.9	DI/DII/R4
3.1.3: Pathogenesis of periodontal and peri-implant diseases	5.1, 5.7, 5.9	DI/DII/R4
3.1.4 Pharmacology as it applies to periodontal and peri-implant diseases	5.1, 5, 4, 5.5	DII/R4
3.2: Diagnosis and Treatment Planning		
3.2.1: History Taking	5.1.5.2, 5.9	DII (Comms); DIII; R4
3.2.2: Clinical Assessment	5.1	DIII
3.2.3: Investigations	5.1; 5.2, 5.8, 5.9,	DIII
3.2.4: Diagnoses and prognoses	5.1; 5.2; 5.10	D11 (Comms); DIII; R4
3.2.5: Classifications	5.1, 5.4	DIII
3.2.6: Treatment Planning	5.1, 5.2	D1 (Ethics); DIII; R4
3.3: Treatment Modalities		
3.3.1: Non-surgical management	5.2, 5.4,	DIII; R4
3.3.2: Surgical management	5.5, 5.6, 5.8	DIII; R4
3.3.3: Dental implants	5.7; 5.8, 5.9	DIII; R4
3.3.4: Mucogingival management	5.6	DIII; R4
3.4: Treatment Outcomes		
3.4.1: Supportive Periodontal Therapy (SPT)	5.2,5.4, 5.5	DII/DIII/R4
3.4.2: Working with the dental team	5.2, 5, 3, 5.5, 5.10	D1 (Professionalism) DII (Comms)
3.4.3: Complications	5.5, 5.6, 5.8	DII/DIII
3.4.4: Evidence and guidelines	5.2, 5.5,5.7 ,5.8	D1 (professionalism) DIII (critical thinking)
3.5: Interdisciplinary Management		
3.5.1: Perio-oral medicine	5.2, 5.3, 5.10	DIII
3.5.2: Perio-endo	5.2, 5.3, 5.10	DIII
3.5.3: Perio-ortho	5.2, 5.3,5.10	DIII
3.5.4: Perio-prosthodontic	5.2, 5.3, 5.10	DIII

6.0: Appendices

6.1: Portfolios vs Log books

A portfolio is an important document and has received increasing significance and importance in the past decade as clinicians are expected to demonstrate compliance with being up to date and maintaining their skills. During training this provides a good basis on which to plan personal and educational development needs. It essentially provides:

- Evidence of having learnt from an experience
- Describes how learning has happened through various activities
- Incorporates reflection and learning logs and stimulates a trainee's/learner's self awareness, playing a key part in trainee led learning.
- Forms part of the annual assessment during which the trainee's progression is monitored

A log book on the other hand is a record of all clinical activities undertaken throughout training. . It forms part of the portfolio and provides:

- Evidence of having gone through the various learning experiences
- Lists the activities that have been undertaken
- Provides evidence for competency development

6.2: Work Place Based Assessments (WPBAs)/Supervised Learning Events (SLEs)

These are used to evaluate a trainee's progression and aim to link learning, teaching and assessment in a structured manner. They help identify strengths and weaknesses and a wide range should be used. Feedback is an essential aspect of the learning output as without this the WPBA will have limited value. The trainee should ideally get into the habit of establishing which ones they are going to use and proactively plan and implement them, seeking feedback and discussion with the supervisor once the event has completed. A WPBA is part of the formative learning process in which assessments are used for learning. Completing a WPBA many days or weeks after the event does not help with learning progression. There are many different types, however, the indicative ones to consider using are listed here.

6.2.1: Mini Clinical Evaluation Exercise (Mini CEX)

This is a 15 minute snapshot of a clinician-patient interaction designed to assess information gathering skills and clinical skills alongside attitude and behaviours required for the delivery of high quality care. The trainee's interaction in a clinical encounter with a patient is observed with different problems being assessed at different times focussing on a specific aspect of the encounter. The areas covered under domains 2, 3 of this syllabus can be assessed using this WPBA and can be used in different settings. More suitable to be used during the earlier years of training.

6.2.2: Case Based Discussion (CBD)

This is an in depth structured discussion between the trainee and supervisor about the decision making and application of knowledge obtained during the history taking for which the trainee has been directly responsible. It can help explore the trainee's ability to apply analytical and judgement skills but also enables professional judgement to be explored. Ideally, clinical cases with complex needs should be used to explore the trainee's ability to explain and provide rationale for the reasoning behind the choice they have made. CBD's can test higher order thinking and synthesis , enabling exploration of deeper understanding and knowledge application. They should be used predominantly toward the middle to end of year 2 into year 3, but can be used in year 1 for simpler cases.

6.2.3: Direct Observation of Procedures Skills (DOPS)

These are aimed at providing feedback on procedural skills essential for providing good clinical care across the breadth of the syllabus. A practical procedure is undertaken, and the trainee will choose the timing, procedure and observer. A range should be undertaken and often developing the skill may involve repeating DOPs on the same procedure after the change in learning has been implemented to evidence the learning experience. The assessor will observe the procedure, and a structured check list is used to give the trainee the feedback.
The key advantages of these are that daily procedural practice is observed and a range of skills from simple to complex can be assessed.

6.2.4: Evaluation of Clinical Events (ECE)

This is a new tool that provides a method of assessing the trainee in the performance of their duties in complex tasks often involving teamwork with others. For the trainee this could be an interaction as part of the multidisciplinary team meeting or contribution to audits or governance processes. Can be used in year 1 but has more value towards the end of year 2 going into year 3.

6.2.5: Care Assessment Tools (CAT)

These are structured assessments designed to evaluate a trainee's professional judgement across the scope of practice. They assess the trainee's performance against capabilities and assess these against the decision making skills. They enable the supervisor to assess if the trainee made holistic, balanced and justifiable decisions in relation to the patient care. They should be used towards the end of year 2 moving into year 3

6.2.6: Entrustable Professional Activities (EPA)

Not used widely in dentistry and is an assessment of a clinical activity that a trainee is trusted to perform with minimal or no supervision. It is a means by which competence is translated into clinical practice and is an excellent tool that facilitates the demonstration of trainees working as independent clinicians. It is a descriptor of work and should be for trainees predominantly in year 3, however it can be applied during the latter half of year 2. It helps establish if the trainee has met the required level of proficiency and requires multiple competencies with proficiency needed in several domains. It must be described with sufficient level of detail to set the trainee expectations and guides the supervisor's assessment and entrustment decisions. It should include the following:

- Title of the activity
- Description and the required knowledge, skills, capabilities and attitudes
- Information to assess progress
- When is the unsupervised activity expected
- The basis on which the entrustment decision is made

Whilst not applied widely in dentistry this type of assessment gives more meaningful information but can be time consuming.

6.2.7: Multisource Feedback (MSF)

These are invaluable to gain opinions from colleagues and peers on the trainee's clinical performance and professional behaviour. A minimum of 10 respondents is needed and should be done once annually. The trainee also completes a self-assessment and its validity is dependent on the choice of respondents, which should be agreed between the trainee and educational supervisor.

6.2.8: Patient Satisfaction Questionnaire (PSQ)

All trainees should be completing one of these as part of their portfolio and are invaluable in establishing the patients' views on the care the trainee is providing.

6.2.9: Multiple Consultant Reports (MCR)

This is a new tool that allows trainers to make an overarching holistic judgement about whether the trainee is meeting the expected curriculum outcomes at the relevant stage in their training. It triangulates information from as many consultants as possible involved in the supervision/training of the trainee. The ES (educational supervisor) will usually send the form to the consultants involved in training and will collate the feedback into one form and give the trainee timely and accurate feedback. The completed and signed form should be uploaded by the trainee into their portfolio. An example of a completed MCR can be found by clicking the following link https://www.jcst.org/-/media/Files/JCST/CESR/Example-completed-Multiple-Consultant-Report--MCR-2021.pdf

6.2.10: Learning Logs

This is a personal learning record and is used to collect evidence about a trainee's progress. The learning log is part of the portfolio.

6.2.11: Reflection Log

Reflection is an integral part of daily practice and learning. The trainee can assess themselves, how well they are performing and identify their learning needs thus improving

their practice. The reflective learning log is a record of an experience, event or timeline that the trainee reflects upon and creates some action learning sets which are then discussed with the supervisor/trainer. It should be linked to the syllabus and learning outcomes so that reflective practice is embedded into daily learning. It helps drive and develop self-awareness and the gaps that need to be closed to meet the end point of training. A reflective log, it is not just about what occurred, but more about why it went the way it did, irrespective of the outcome, as this is where the learning lies. It should be short, succinct and relevant, and should incorporate 'how the trainee felt during the experience' thus diving deeper into self-learning. It should also be remembered reflection is personal and there is no one way to reflect. A reflective note does not need to capture the full details of an experience but focusses on the learning outcomes and future plans. Further details of reflective practice in medicine can be obtained from COPMED[12] site.

6.3: Progression markers

Progression markers are used to manage a trainee's progression during their training period. Progression markers can be formative which are assessed as the trainee progresses in the training or summative. The latter is usually a formalised way in which the trainee's training progression is evaluated by training experts, led by the training programme director (i.e. the ARCP process). For those on non-NHS funded training programs, their annual progression will be assessed locally within the unit in which the training is provided. The lead supervisor (i.e the educational supervisor) may establish a time line and points at which they may wish to discuss the trainee's progress.

A trainee should establish their own progression markers and self-monitor their progress during training. The use of self-directed learning and reflection is a good way to establishing this and can be further strengthened by the regular integration of WPBAs. If a trainee feels overwhelmed or concerned, they must discuss their concerns with their supervisor who is there to provide the necessary guidance and support. The 5-stage adult skill acquisition model described by Dreyfus[13] which takes a trainee from being a novice through to an advanced beginner, to becoming competent and proficient, eventually becoming an expert is a useful way that trainees can benchmark themselves when monitoring their own progress so that they are establishing their own goals in progression during training.

6.4: Intercollegiate Surgical Curriculum Programme (ISCP)

The parent body of the ISCP is the Joint Committee on Surgical Training (works on behalf of the 4 colleges) and was launched in 2007 to develop and promote the highest standards of training.
It aims to provide transparency thus enabling trainees to record their achievements as they progress through training. Since its inception it continues to evolve through constructive dialogue and feedback from users.

The secure management training system enables trainees and trainers to capture learning, teaching and feedback through different online tools. It incorporates a trainee portfolio that helps trainees demonstrate that they are progressing and meeting all the curriculum requirements. It also formalises the learning agreements established with the dedicated educational supervisor thus helping trainees identify their learning goals and manage their training and enables trainees to collect evidence of their training activity and receive feedback. It informs the online annual review of competence process that allows trainees to progress to the next level.

6.5: Role of Trainers

The education outcome framework and associated documents including the 2015 GMC publication 'Promoting excellence: standards for medical education and training' have established the standards to which trainers are expected to train.

Trainers play an important and crucial role in ensuring that trainees and patient safety is maintained whilst training is taking place. They will ensure trainees progress through their training and support them in their journey, guiding them as appropriate and necessary. During the initial years of training, the trainer will play an instrumental role in ensuring that the trainee develops and builds their self-awareness and reflection in guiding themselves through the training with the later years becoming ones where the trainer plays more of a mentoring role in helping the trainee achieve their goals. The trainer thus must balance the trainee's needs and development against patient safety and provides the required and appropriate level of supervision. The trainer is pivotal in developing and enhancing a learning culture by encouraging feedback and reflection.

A trainee will be exposed to 2 categories of trainers, the lead trainer or educational supervisor, and the clinical supervisor. Both play fundamental roles in training progression, however, the educational supervisor has a more holistic role supporting the training whereas the clinical supervisor will be more directly involved in supervising day to day clinical activities.

An **educational supervisor** is defined as 'a trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a trainee's trajectory of learning and educational progress during a placement and/or series of placements (GMC 2012). Every trainee must have a named educational supervisor. The educational supervisor's role is to help the trainee to plan their training and achieve agreed learning outcomes. He or she is responsible for the educational agreement and for bringing together all relevant evidence to form a summative judgement at the end of the placement and/or series of placements.' The educational supervisor has a critical role in ensuring that the trainee's progressive learning is taking place by ensuring the satisfactory completion of the Portfolio.

A **clinical supervisor** is defined as '…a trainer who is responsible for overseeing a specified trainee's clinical work for a placement in a clinical environment and is appropriately trained to do so GMC (2012). He/she/they will provide constructive feedback during that placement and inform the decision about whether the trainee should progress to the next stage of their training at the end of that placement and/or series of placements. A clinical supervisor will play an essential role in giving feedback with SLEs/WPBAs and will also report issues of concern/ achievements relating to a trainee to the Educational Supervisor in a timely manner.

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