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Clinical standard for dental specialties - Orthodontics

This standard has been produced to promote consistent delivery and quality of specialist orthodontic care provision to patients in England to ensure that resources invested by the NHS in specialist care is used in the most effective way, provide the best possible quality and quantity of care for patients, and meet need rather than serve demand.

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Foreword

This standard has been produced to promote consistent delivery and quality of specialist orthodontic care provision to patients in England to ensure that resources invested by the NHS in specialist care is used in the most effective way, provide the best possible quality and quantity of care for patients, and meet need rather than serve demand.

1 What is Orthodontics?

1.1.1 Description of the specialty

Orthodontics is the dental specialty concerned with facial growth, development of the dentition and occlusion, and the assessment, diagnosis, interception and treatment of malocclusions and facial deformity.

1.1.2 Description of the workforce and training

General Dental Practitioners (GDP)

a) A GDP on the NHS Performer List should have the skills to monitor the developing occlusion and recognise a malocclusion. They should be familiar with the use of IOTN and be able to determine the suitability and commitment of a patient to support the Orthodontic referral decision to a specialist. A GDP should have the competency to manage the patient's oral health during and following Orthodontic care, including maintenance of patients' post Orthodontic treatment.

Dentists Accredited to Perform Level 2 Complexity Care

b) Dentists undertaking this care should have been accredited by a Local Accreditation Panel as defined in the current guidance from the OCDO. Guidance for Commissioners on the Accreditation of Performance of Level 2 Complexity Care 2018

Specialists

c) The award of the certificate of completion of specialty training (CCST) is the responsibility of the General Dental Council (GDC). Registered specialists can provide a full range of treatments within the competencies defined by the Orthodontic Specialist Training curriculum. Some provide this treatment directly themselves, but others also provide the treatment as part of a wider team including dentists, orthodontic therapists and nurses with enhanced skills.

Consultants

d) Orthodontic treatment, in certain situations, may require a multidisciplinary team approach and this is often more appropriately offered by an individual at consultant level in a secondary care environment. Completion of training is marked by passing the Intercollegiate Specialty Fellowship Examination (ISFE) and satisfactory completion of post-CCST training.

Orthodontic Therapists

e) Orthodontic therapists are members of the Orthodontic team and work under the guidance of a specialist or GDP. Orthodontic therapists work both in primary and secondary care and require treatment prescriptions with continuing, regular supervision throughout delivery of a care. Orthodontic therapists cannot undertake treatment planning, and, at decision-making appointments, direct accessible supervision must be available.

1.1.3 General Principles

- Orthodontic treatment should only be undertaken in situations where it is believed to be in the patient's best interests in terms of their oral health and/ or psychosocial wellbeing.

- In all situations, the clinical advantages and long-term benefits of Orthodontic treatment should justify such treatment and outweigh any detrimental effects.

1.1.4 General Patient factors

Clinicians should ensure that the co-operation, motivation, aspirations, and general health of the patient are consistent with the provision of orthodontic treatment, particularly their ability to maintain good oral hygiene to ensure no harm is done. They must also ensure that the patient and or carer are willing and able to commit to frequent attendance, which may be during school hours, over the course of orthodontic treatment and are aware of the need to wear appliances. The exception to this is patients requiring assessment for interceptive extractions or advice only

1.1.5 Patient's oral environment

The clinician should ensure that an oral health assessment/ review has been carried out and that the information collected, and the risks identified are reviewed, shared and agreed with the patient before entering treatment.

It is not generally in the patient's best interest to deliver orthodontic treatment in the absence of a stable oral environment or where there is evidence of active dental disease

1.1.6 Clinical feasible beneficial

The detailed clinical aspects of the proposed orthodontic treatment must be considered to ensure that it will be beneficial to the patient.

1.1.7 Description of the complexity levels

There are several factors which need to be considered when assessing the complexity level of an orthodontic patient. These include the type of malocclusion, technical difficulty in improving function and aesthetics, together with any patient modifying factors.

1.1.8 **Complexity Descriptors**

Level 1:

Treatment and care undertaken in NHS primary dental care mandatory contracts and NHS England commissioning expectations of care provided.

Level 2:

Treatment undertaken by dental teams with a formal link to a consultant-led MCN. This includes dentists who have enhanced skills and/ or experience; non-specialist performers who have successfully gained accreditation of Level 2 complexity care.

Level 3a:

Treatment undertaken by practitioners who are on the Specialist List for Orthodontics with a formal link to an MCN. This is predominantly primary care treatment which could be delivered in either a primary care or secondary care setting.

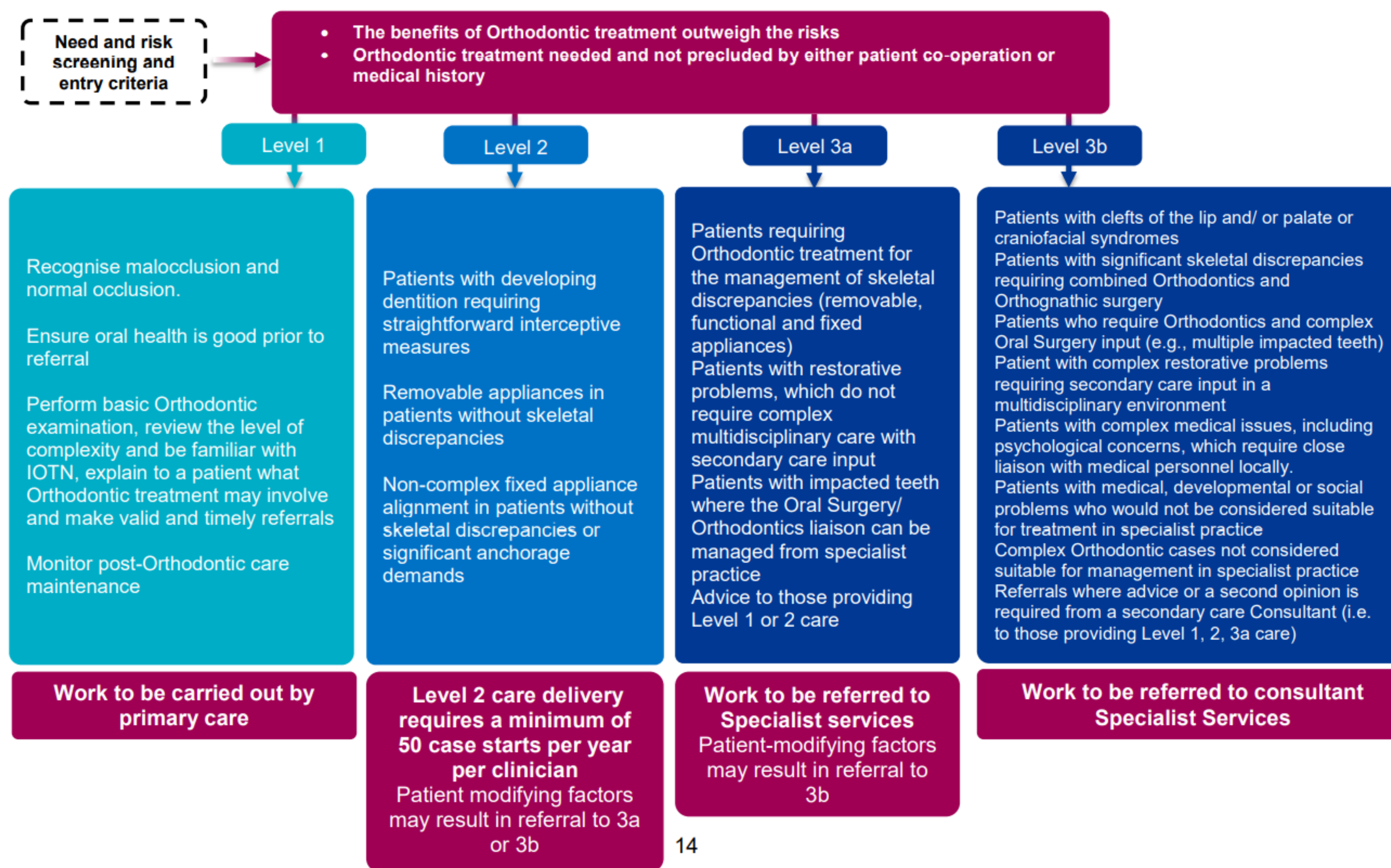
Level 3b:

Treatment undertaken by practitioners who are on the Specialist List for Orthodontics and have undergone an approved period of further post-CCST training or who can demonstrate equivalence. Level 3b Orthodontic treatment is generally delivered within a secondary care setting.

The level of complexity may change depending on one or more of the following factors:

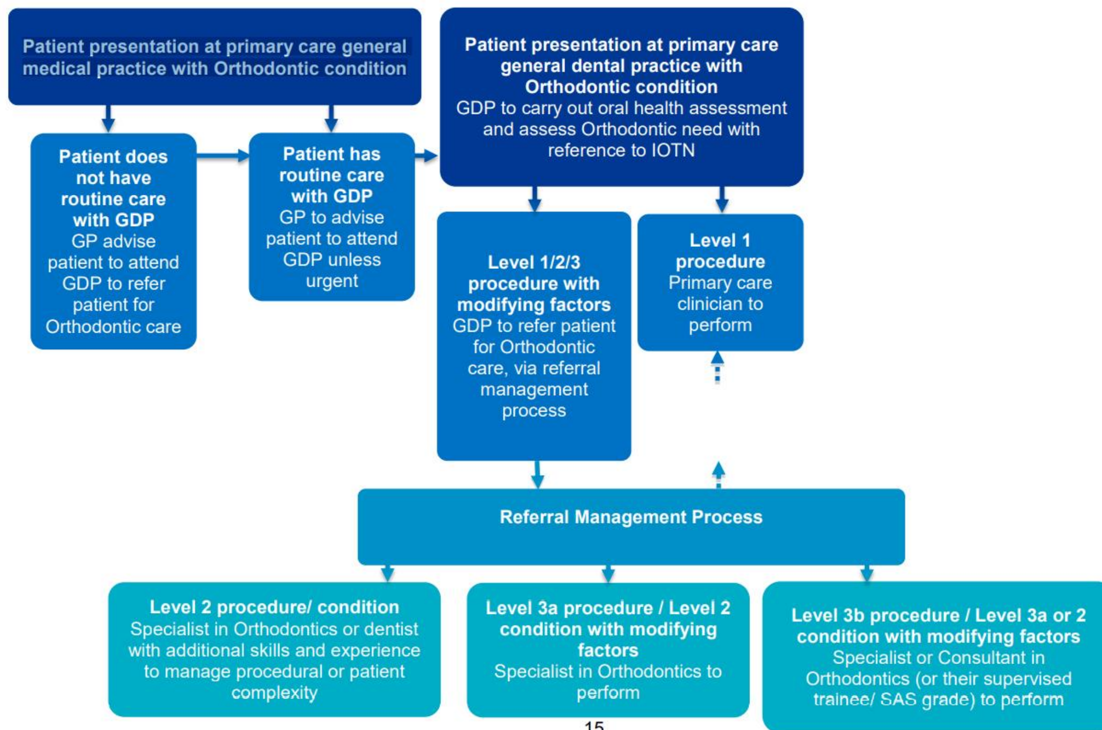
- Medical History
- Social Factors
- Patient anxiety
- Other patient-associated modifiers

2 Complexity Assessment – Orthodontic Treatment



3 Illustrative Patient Journey

Further details can be found in **Appendix 1**



4 Assessing need

There are three main elements to assessing Orthodontic treatment need:

- Normative need – the professionally-judged need in a population cohort using a standardised clinical index, such as IOTN. This represents the capacity to benefit from healthcare.
- Expressed need – patients with need presenting for treatment.
- Demand (felt need) – a patient's perception of need. This is generally a poor proxy for need and often reflects supply and other social factors.

Undertaking population orthodontic needs assessment and reviewing existing service provision as a minimum, should include:

- the orthodontic needs of the local population
- and if population projections will alter this needs assessment over the coming years
- audit of current providers and their service and contract delivery performance
- assessment of whether local Orthodontic services are sufficient to serve the population and are currently in the right locations

The population representative sample indicated that the prevalence of Orthodontic clinical need is between 30.5% & 33% of the population.

There are a number of methods for assessing need; however, published studies and surveys have consistently reported that around one third of children, in any given population, will need and want Orthodontic treatment. Demand is rising as the health and expectations of the population improve.

5 Understanding current provision

5.1 Current provision

Currently, orthodontic services are largely provided by specialist practitioners and dental practitioners appropriately trained or with enhanced skills and/ or experience operating within primary care. As well as specialist primary care services, there are providers in primary care who provide orthodontic services as part of a mixed contract under General Dental Services,

Orthodontic services are in the main provided to children and adolescents. The Index of Orthodontic Treatment Need (IOTN) is the criteria by which clinical need is assessed. This is currently set at IOTN 3.6 or above for NHS eligibility; however, the requirement for a patient to have excellent oral hygiene, want care and be prepared to commit to the demands of treatment are as important.

Under current arrangements, it is largely the referring GDP who determines if, where and when a patient is referred.

Improved clinical outcomes are reported in the majority of Orthodontic contract delivery through the requirements of Peer Assessment Review (PAR) scoring.

5.2 Outcomes

Orthodontics is one specialty where a clinical outcome measure has been developed and is in use in both primary and secondary care. The PAR index is a fast, simple and robust way of assessing the standard of Orthodontic treatment that an individual provider is achieving.

The PAR index is primarily designed to look at the results of a group of patients, rather than an individual patient, as there are always a small number of patients where the index does not fully represent the result obtained. However, only a sample is collected and for its use to be accurate and reproducible, any individual completing the PAR scoring service must be trained and calibrated.

As individual patient outcomes may be influenced by many factors, it has been proposed that an appropriate quality standard would be that 75% of completed cases should exhibit a reduction in PAR score greater than 70%, with 3%, or fewer, completed cases having a reduction in PAR lower than 30%[1]. Other PROMs and PREMs must also be used to assess the quality of patient care.

[1] McMullan R E, Doubleday B, Muir J D, Harradine N W, Williams J K 2003 Development of a treatment outcome standard as a result of a clinical audit of the outcome of fixed appliance therapy undertaken by hospital-based consultant Orthodontists in the UK. British Dental Journal 194: 81 – 84

6 Model of care

6.1 Current models

The following bullet points summarise the current models of care operating for the provision of Orthodontic services and have been discussed previously in the guide.

- GDPs decide where and when to refer a patient.
- Service provided in primary and secondary care settings.
- IOTN used to determine access to NHS-funded Orthodontic treatment.
    - Primary care: IOTN 3.6 and above
    - Secondary care: those requiring multidisciplinary treatment or with patient modifying factors
- Variable local referral pathways used with no nationally agreed Care Pathway.
- A variety of factors influence where patients are referred including:
    - General access to primary dental care
    - Historic referral patterns/ local Care Pathways
    - Patient satisfaction/preference
    - Geography (transport links) and availability of Orthodontic services
    - Teaching needs e.g., postgraduate and undergraduate programmes
    - Contracts and available resources (primary and secondary care)
    - Experience and knowledge of GDPs.
- MCNs/ LCNs are in existence but specific management/ effectiveness of these differs from region to region.
- Sample PAR outcome not routinely reported, and cases are selected by providers
- Limited patient experience measures are collected and reported in primary care.

6.2 Clinical team implications

- Multidisciplinary care managed through local MCNs
    - Consultant-led with administrative support required
        - Cleft (already established)
        - Orthognathic (secondary care)
        - Oral Surgery
        - Restorative
        - Paediatric Dentistry
- Appropriate workforce available to deliver care (e.g., for hypodontia patients)
- Effective communication with Commissioners and dental LPN through Orthodontic MCN to ensure high quality patient care
- Development of training models to improve quality and cost effectiveness to deliver additional benefit to patients
- Framework for maintenance of core skills and enhanced CPD

7 Clinical Standard

Minimum clinical standard requirements

All Level 2 and Level 3 care must meet the minimum clinical standards for Level 1. Level 2 care is described as below. Level 3 care includes suitably experienced and qualified specialist Orthodontists with the following qualifications: FDS(Orth)RCS (Level 3b)/ MOrth (Level 3a) or equivalent and must be on the GDC Orthodontist specialist list.

See level 2 care table 7.1

7.1 Level 2 care

Level 2 Care
Staff Composition/ Workforce The staff composition will be as follows: • Dentists Accredited to Perform Level 2 Complexity Care • Suitably trained, supervised and experienced dental healthcare professionals i.e., dental nurses/ hygienists • A qualified dental nurse who will support the Orthodontist at all times. **The provider will ensure:** • That robust practice management is in place to address issues arising from the patient pathway e.g., validation of patient data, management of patient complaints and issues, management of clinical information. • That all dental/ Orthodontic staff must have the appropriate clinical indemnity, either through an approved defence organisation or through their employment • That all staff supplied have valid registrations and evidence of continuing professional development for on-going registration including participation in peer review and audit • That the performers all have the ability to secure care for vulnerable patients who may have addiction, mental health illnesses and anxiety/ phobia. Days/ hours of operations • The service must be provided at times most convenient to patients, including early mornings and late afternoon appointments to ensure school children are not discriminated against. Consideration should be given to evening or weekend appointments and it is expected that a minimum number of after school sessions should be made available per week **Patient Focus** Providers will ensure that patients are provided with relevant verbal and written information in a variety of formats, where necessary utilising a translator service, outlining the service

They will also be required to provide information concerning the outcome of the assessment, such that the patient is clear why a specific treatment opinion has been selected.

Prior to initiation of treatment, the patient and/ or carer should be provided with the following information verbally and in writing:

- Treatment plan including length of treatment and frequency of visits
- What to expect during treatment?
- What is expected of them including self-care, compliance and under what circumstances treatment will be terminated e.g., poor attendance, poor oral hygiene, abusive behaviour
- Any additional costs the patients may experience e.g., payment for replacement of broken appliances under Regulation 11 and equipment such as wax, toothbrushes etc.

The information should be given in such a way that it supports the patient's ability to give formal consent to initiate treatment.

Providers will be required to:

- Ensure the patient has a clear understanding in advance of what will happen to them during the treatment, who will be responsible for delivering each element of care and why, for example, the patient may be returned to their GDP for extractions
- Ensure valid consent is gained from all patients prior to initiating assessment and/ or treatment
- Have effective and robust arrangements in place to promote and safeguard the health and wellbeing of young people and vulnerable adults
- Have in place a policy that meets the Commissioners' and CQC requirements for Safeguarding Child/ Young Person

Equipment/facilities

- Ensure that all equipment conforms with health and safety regulations and nationally accepted standards and is maintained regularly in line with national and manufacturers guidelines
- Be responsible for the funding of consumables, laboratory work and dental appliances
- Ensure any dental laboratory services used meet with GDC guidance and EU legislation
- Ensure that safe processes and working environment are in place. This will include training of staff in relevant processes and procedures
- Ensure all legal requirements relating to radiological guidance are met, compliance with information governance, and safe and secure transfer of patient data ie NHS net account's costs

Appropriate premises and equipment such as radiographic facilities e.g., Dental Panoramic Tomography, Lateral Cephalometric radiograph and any drugs and equipment made available as recommended by Research Council UK Other
All providers will be required to become active members of their local MCN

8 National Key Performance Indicators

Here are five national key performance indicators (KPIs) which form part of the service specifications of new commissioned orthodontic Personal Dental Service (PDS) agreements.

National Key Performance Indicators (KPIs)	***Excellent OR Band A*** (1)	***Acceptable OR Band B*** (2)	***Unacceptable OR Band C*** (3)
Number of Case Starts (Total number of commissioned UOAs divided by 22.5 - in line with agreement established with the profession) % UOAs assess and accept compared to total UOAs delivered	Above 93%	*Between 90% & 93%*	Less than 90%
A total of 20 cases to be PAR scored by an independent calibrated examiner and conform to BOS standards on an annual basis *(10 consecutive cases every six months between April and September and October and March, to be randomly selected by Dental Services)*	75% of patients assessed have a PAR score reduction of 80% or more	*75% of patients assessed have a PAR score reduction of between 70% & 79.9% or more*	*75% of patients assessed have a PAR score reduction of less than 70%* (4)
Case Starts vs Case Completions (5) *Options for period; six monthly; annual; cumulative – to be confirmed*	*Above 95%*	*Between 90% & 95%*	*Less than 90%*
PROMS/PREMS around patient experience – these are based on national patient survey produced by Dental Services on behalf of NHS England (6)	Not applicable – data will be used for triangulation purposes only	Not applicable – data will be used for triangulation purposes only	Not applicable – data will be used for triangulation purposes only
There must be active clinical (7) *participation in the Orthodontic Managed Clinical Network (MCN)* (8)	Engagement with (9) local MCN which includes attending meetings and participation in the MCN's programme of work		No engagement with (10) local MCN

Key information for commissioners when monitoring KPIs:

[1] No action required by contractor or commissioner.
[2] No action required by contractor or commissioner.
[3] Formal discussion between contractor and commissioner and a SMART action plan to be agreed by both parties to increase performance above band C – contractor to have an appropriate length of time to improve prior to a formal remedial notice being issued for example a quarter, six months, or less – the expectation is that this will be mutually agreed between both parties and give a reasonable length of time for the contractor to improve performance before any formal contract sanctions are considered.
[4] Provider should be given the opportunity to have a further 10 cases scored to avoid a situation where the low score is down to bad luck, this should form part of the action plan.
[5] Denominator to include all case starts, numerator to include cases completed, cases abandoned or discontinued are not to be included.
[6] Patient survey is currently undergoing a national refresh, led by our Clinical Advisor for Orthodontics.
[7] Representative must be a clinical specialist or dentist with enhanced orthodontic skills.
[8] It was envisaged this indicator could be reported via a self-declaration on the COMPASS system. A form will be designed which would include information on how the provider has engaged with the MCN. Evidence to support the self-declaration will be required from contractors.
[9] Expectations in band A and B are consistent.
[10] Lack of engagement with the MCN would be seen as a concern for Commissioners.

9 Quality and outcome measures

Generic PROMs & PREMs have been developed for all specialist services and these can be referenced in the Overarching Guide for Specialist Dentistry Services. The current Orthodontic indicators are detailed below and are measurable via existing datasets.

Indicator	Metric
Assessment	
O1. Assessments by category	% of assessments that are: Assess and accept Assess and refuse Assess and review
O2. Age at assessment	% of reported assessments and review where patient is aged 9 years or younger
Treatment	
O3. Cases reported concluded as a function assess and fit appliance	Ratio of reported concluded (completed, abandoned, or discontinued) courses of treatment to reported assess and fit appliance.
O4. Type of appliance used	% of concluded (completed, abandoned, or discontinued) courses of treatment reported as using removable appliances only (all outcomes, including completed, abandoned or discontinued)
Outcomes	
O5. UOAs reported per completed case	Ratio of the number of UOAs reported per reported completed case (not including abandoned or discontinued cases)
O6. Reported PAR scoring	Expected number of cases PAR scored based on completed courses of treatment reported versus actual number of cases reported PAR scored (year to date).
O7. Abandoned or discontinued care	% of concluded (completed, abandoned, or discontinued) courses of treatment where treatment is reported as abandoned or

Appendix 1 – Patient's Journey

This patient's journey should be considered locally:

Identifying Care Pathway for Patients – Orthodontic **Level 1/ Level 2/ Level 3 Complexity**

Primary Care dentistry			
Illustrative Patient Journey	**Standards**	**Metrics**	**Enablers**
Recognise malocclusion and normal occlusion. Understand the importance of monitoring the developing occlusion Evaluate the potential need for Orthodontic treatment and be familiar with the Index of Orthodontic Treatment Need (IOTN) in order to support referral decision making and advice to patients on alternative options if thy do not meet IOTN criteria.	• Timely valid referrals • Timely accurate extractions as requested by Orthodontic provider • Effective primary care management with regard to oral health during Orthodontic care and in maintenance post-treatment Patients referred need, want and are suitable for Orthodontic treatment or advice.	• Data submissions aligned with that expected of GDS contract Referral quality and validity: • Caries controlled at referral unless special circumstances • Good oral hygiene unless special circumstances Referrals should relate to a knowledge of IOTN and other special needs/ modifying factors	Specialist led local Orthodontic MCN communicating with GDS/PDS primary care contractors under the umbrella of a local professional network. Accessible IOTN update training to ensure primary care practitioner competency Contract reform Specialist led MCN

Ensure patient is:- • Caries free unless opinion is being sought with regard to special circumstances. • Aware of the importance of maintaining good oral hygiene throughout Orthodontic treatment. Primary care dentists should explain to patients what Orthodontic treatment may involve including: • removable appliances and/ or fixed appliances and what these might entail • possible length of treatment and required commitment to attend and complete treatment • the risks and benefits of Orthodontic treatment			

Be able to make valid and timely referrals adhering to NHS England Orthodontic referral guidelines (to be produced) Monitoring post-Orthodontic care maintenance			

Referral			
Illustrative Patient Journey	**Standards**	**Metrics**	**Enablers**
Ensure patient is Caries free unless;			
• Referrer completes the referral form ensuring consistent required data set is complete (to be developed) • The referral must include all relevant medical history • The referral must include any available relevant radiographs • It is explained to patients referred for Orthodontic assessment that they may not meet criteria for NHS	• Only refer patients who want Orthodontic care • Referrals adhere to Orthodontic referral guidance, including timely referral requirements • Consistent and accurate data set of referrer details • Consistent and accurate data set of patient demographics and contact details • Specific relevant medical history communicated to	• % of referrals received that have complete referrer details • % of referrals received that have complete patient demographic and contact details • % of referrals that are valid with regard to OH • % of patients who are informed and understand what Orthodontic therapy	Electronic pro-forma and referral processes Agreed data set and national Orthodontic referral guidance Accessible IOTN update training to ensure primary care practitioner knowledge of Index and awareness of NHS England Orthodontic referral guidelines and expectations

treatment where need is borderline • Patient choice of preferred providers for the appropriate level of specialist care required. Dentist referring within one week of the decision to refer being made	Orthodontic provider • Patient has good oral hygiene or, if complex, Orthodontic need or other special needs/modifying factor	may entail • % of patients who meet NHS criteria, want and are suitable for Orthodontic care or advice % of patients who are referred within 1 week of decision to refer.	Waiting lists, Outcome and performance indicators of all specialist providers available to referrers

Patient seen – assessment Specialist care level 2/3			
Illustrative Patient Journey	**Standards**	**Metrics**	**Enablers**
• Patient has all information about Orthodontic assessment, treatment options, average length of treatment and what committing to care will involve. • Ensure valid consent • Information on appliance and out-of-hours care after procedure • Patients are fully informed	• Competence and qualification of Orthodontic team meets the level of care provision • Formal appraisal, peer review and outcome measures (e.g. audited PAR scores) in place for all clinicians through a managed clinical network • Access to appropriate premises and equipment such as radiographic facilities Dental Panoramic Tomography, Lateral	• % of referral forms that are deemed valid • % of referrals forms received that confirm patient need, want and are suitable for specialist Orthodontic care or advice • % of DNAs/ cancellations by patient • Provider CQC compliance % of appointments available outside of school hours and term time.	Appropriate contracting mechanisms

about the risks and benefits of Orthodontic treatment including the likely need for long-term retention to maintain complete alignment. Referral process includes assessment for advice regarding on- going management, such as the need for extractions.	Cephalometric radiograph and any drugs and equipment made available as recommended by Research Council UK • Disability Discrimination Act, Equality Act and CQC compliant • Patient has choice of appointment time subject to availability of provider, but all providers should be able to offer appointments outside of school times All providers are working within an MCN and not working in isolation.		

Level 2 and 3 care			
Illustrative Patient Journey	**Standards**	**Metrics**	**Enablers**
Ensure good communication with patient's GDP throughout treatment. Referral to MDT e.g. Restorative, Oral Surgery, Maxillo-facial Surgery, Paediatric Dentistry, Plastic Surgery if necessary Monitor patient's compliance of oral hygiene throughout treatment and inform patient/ carer and GDP if support is necessary. Undertake Orthodontic treatment to a high standard and in a time efficient manner. Patient has all necessary information on advised self-care and who to contact during treatment should there be a problem.	• Start treatment within 18 weeks of initial assessment if patient meets necessary referral criteria • Timely management of problems during treatment • Consistent and accurate record keeping • Patients able to contact the Orthodontic providers during surgery hours throughout the course of treatment and maintenance period • Inter-visit length i.e. length between appointments should be appropriate to meet optimal clinical standards • Ensure valid consent for treatment is obtained throughout the course of treatment • Appropriate supervision of Orthodontic therapists and other non-specialist providers	• % of patients who are ready for treatment and commence within 18 weeks or decision to treat • % of incomplete or abandoned treatments • PAR scoring recorded for every completed case. • Robust external audit of PAR and outcomes reported and reviewed through the managed clinical network • % of completed cases	Effective use of resources e.g. skill mix Consistent diagnostic and procedure used by all Level 2 and 3 care providers The workforce with the relevant training to deliver care Access to appropriate MDT where required. Clear distinction between levels of care

Discharge Maintenance			
Illustrative Patient Journey	**Standards**	**Metrics**	**Enablers**
Patient has all necessary information at end of active treatment on retention regime and who to contact should there be a problem • what to expect in the retention period At discharge from the Orthodontic provider, following the supervised retention period, the patient is given all the necessary information regarding on-going management of retention and what they can expect from their GDP.	• Patient-friendly information available in a number of formats including information on what to expect and who to contact and what to do if problems occur • GDP informed of patient's discharge within 1 month • GDP and patient given discharge and retention plan	• PROMs collected and reported on routinely within one month of completion of care Through provider home check reporting and surveys • Did you get what you needed? • Did you have any problems over course of treatment? • Did you need to seek advice or assistance outside of scheduled appointments? • If the problem you were referred with caused you to be unable to eat comfortably or socialise with confidence – is that now resolved? • Would you recommend this provider to a friend?	Provider has all details of referring dentist correct from initial referral data Discharge information to referrer Responsive administrative support

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