



Hospital Dentistry

GIRFT Programme National Specialty Report

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Foreword from Professor Tim Briggs, GIRFT programme Chair

I am delighted to recommend this Getting It Right First Time review of hospital dentistry, led by Liz Jones.

This report comes at a time when the NHS has undergone profound changes in response to the COVID-19 pandemic. The unprecedented events of 2020 – and the extraordinary response from everyone working in the NHS – add greater significance to GIRFT’s recommendations, giving many of them a new sense of urgency.

The pandemic has reinforced the need for better oral health, with a greater focus on the prevention of dental decay and periodontal disease to reduce the need for invasive treatment in the future.

Actions in this report can help the NHS as it faces the substantial challenge of recovering services, while operating more effectively and safely than ever before.

Liz has applied the GIRFT approach to dentistry provided in the hospital setting, covering both dental and non-dental hospitals and across the different dental specialties. The work of hospital dentists can range from highly complex cases involving specialist knowledge, interdisciplinary working and patients with specific needs, to more routine procedures performed as part of essential dental training.

The findings and recommendations in this report are based on Liz’s deep-dive visits to 106 trusts, alongside the relevant data and her own expertise and experience in the field. Liz has identified substantial variation in how dentistry is being commissioned and provided across the NHS, while highlighting many gaps in the HES data. It is concerning to hear that levels of dental disease continue to be high among children in the most deprived areas in the country, especially as most of this disease is preventable, so this is suffering that could be avoided.

Implementing the 21 recommendations set out in Liz’s report would deliver substantial improvements across all the specialties, including better quality data, more effective management of referrals and greater recognition of the importance of oral health to overall wellbeing. The recommendations also address many of the specific issues faced by the different specialties.

GIRFT and the other Carter programmes, together with the Evidence-Based Interventions programme, are already demonstrating that transforming provider services and investing to save can bring huge gains in stabilising trusts and healthcare systems, both financially and in improvements to patient care.

It is very encouraging to hear about the high level of support shown by clinicians and managers on Liz’s visits. It is clear that there is an appetite to keep working to get better data and building stronger relationships.

These relationships are crucial, as GIRFT can only succeed with the backing of clinicians, managers and all of us involved in delivering care. I hope that with this shoulder-to-shoulder ethos, GIRFT will provide further impetus to keep improving the quality of dental treatment and care provided in NHS hospitals.



Professor Tim Briggs CBE

GIRFT Programme Chair and National Director of Clinical Improvement for the NHS.

Professor Tim Briggs is consultant orthopaedic surgeon at the Royal National Orthopaedic Hospital NHS Trust, where he is also Director of Strategy and External Affairs.

He led the first review of orthopaedic surgery that became the pilot for the GIRFT programme, which he now chairs.

Professor Briggs is also National Director of Clinical Improvement for the NHS.

Introduction from Elizabeth Jones OBE

I was delighted to join GIRFT as the clinical lead for hospital dentistry. Through the GIRFT process, I have visited 106 acute trusts all over England. It was a privilege to meet so many of my colleagues, learn from examples of good practice and share our analysis of the data to guide local improvement.

Hospital dentistry is not one specialty but 12 clinical specialties. These, together with dental public health, comprise the 13 distinct specialties regulated by the General Dental Council. Six of these specialties are covered in detail in my review. I have therefore worked collaboratively with colleagues and representatives from these different dental specialties, and their input has been invaluable in informing the themes and recommendations in this report.

The vast majority of dentistry takes place outside of hospital. It is estimated that only around 5% of dental care takes place in the hospital setting, with 95% taking place in primary care, either in the general dental service or community settings. But that 5% includes over two million outpatient appointments and many day case and inpatient episodes, involving the most complex and difficult cases.

It is therefore vital that we understand and reduce the unwarranted variations that can impact the effectiveness of hospital dentistry services and ultimately patient care. Our visits to acute trusts showed wide variations both in provision of dentistry within hospitals and in the commissioning of dental services by NHS England. We also found gaps and anomalies in the collection of data through Hospital Episode Statistics, which obscure our picture of several specialties, including those dealing with long term conditions. Issues with coding and the accurate recording of care delivered is a main thrust of the report.

We know that the population in England and the UK is an ageing one. Many now live with systemic disease and most go into old age with their own teeth. These factors increase the level of the dental need among older adults. However, we have also found that the dental disease burden for some children continues to be unacceptably high, and we have highlighted this in the report. In some areas of the country children wait for several months to have hospital treatment and this must be rectified.

Another theme running through the report is oral health and prevention. The two most common diseases of the oral cavity, dental decay and periodontal disease, are in the main preventable. We would like to see all healthcare professionals given the tools to advise and help patients to achieve good oral health and to understand the role of oral health in general health and wellbeing. Pharmacists, general practitioners and general dental practitioners all need to act together to achieve this.

Finally, I have been extremely impressed by the interest shown by clinicians in the analysis we presented. Many had no knowledge of their own data but all were keen to improve their recording to ensure more robust data in the future. I hope that this review will help not only to improve outcomes for patients but also increase engagement between clinicians and commissioners, and promote greater integration between primary care and hospital care.

COVID-19 observations

Since this report was drafted, the country has been in the throes of the COVID-19 pandemic, which has necessitated very significant changes in the delivery of dentistry. Hospitals stood down all routine dental care, while many dentists, dental nurses and trainees working in trusts were deployed to new roles. Dental practices were advised to stop dental treatment, provide telephone triage only and refer urgent cases to designated urgent dental care centres.

The resumption of elective dental care represents a huge challenge as dental professionals are at high risk from COVID-19, because of the face to face nature of treatment and close contact with the upper respiratory tract that harbours the virus.

Opinions vary widely on the long-term impact of the crisis. Some see a world in which the majority of outpatient consultations are virtual. However, the degree to which dentistry can be provided virtually will be limited by the particular challenges of intra oral examination and diagnosis.

I believe that the problems identified in this report still hold and will need to be addressed post COVID-19. We've engaged with stakeholders throughout the crisis and they continue to support our recommendations.

In fact, the challenges of resuming care are likely to exacerbate the issues we have highlighted. For example, waiting lists for children needing general anaesthetic are likely to grow longer because intubation and extubation procedures are aerosol generating procedures (AGPs) and likely to be restricted. Similar concerns surround waiting times for oral rehabilitation following oral cancer, oral surgery and orthognathic surgery, as well as for new patient appointments.

Along with challenges, there will also be opportunities to redefine what dentistry is, and what it should be. We stress in the report the need for more inter-professional working among health professionals in primary care – pharmacists, doctors and

dentists - and we would hope that this is the stimulus to ensure that happens. We mention the widening inequalities around oral health, and those vulnerable groups that need help to manage their own oral health needs. This should be a priority as we try to build back improved services.

We need a reinvigorated focus on prevention of dental decay and periodontal disease to reduce the need for invasive treatment in the future. We hope that the proposals on water fluoridation and supervised tooth brushing in the Government's consultation document on preventative healthcare will become a reality and that we can 'put the mouth back into the body' as part of the overall health and wellbeing agenda.



Elizabeth Jones OBE

GIRFT clinical lead for hospital dentistry.

Before her appointment as the GIRFT clinical lead for hospital dentistry Mrs Jones served as Dean of Postgraduate Dentistry for London from 2003 to 2016 and worked in various hospitals across London as a consultant orthodontist. She has been Lead Dean for both Orthodontics and Restorative Dentistry, and led on national recruitment to dental foundation training, which paved the way for other dental specialties to follow. In 2015, Mrs Jones was awarded an OBE for Services to Dental Education.

Statement of support

Faculty of Dental Surgery at the Royal College of Surgeons of England

The Faculty of Dental Surgery of the Royal College of Surgeons of England welcomes the publication of this report into hospital dentistry. It is the product of the commitment of Liz Jones to analysing and understanding the substantial volumes of dentistry activity being carried out across the different dental specialties and in different types of units.

Accurate and comprehensive data is vital to understanding the issues faced and action needed, but often there are issues with the accuracy and completeness of existing NHS data in dentistry. This report sets out in detail how we can improve the data we collect, a crucial first step in identifying further areas for improvement and monitoring progress.

This report also sets out recommendations which, if adopted nationally, may tackle some of the most substantial health inequalities in the NHS and, in particular, improve oral health for children from some of the most deprived areas. These recommendations include improving public oral health to help to reduce the number of people who may require dental interventions and, for those who do, ensuring that they are treated in the most appropriate setting and with the relevant expertise.

This GIRFT report provides a valuable, in-depth assessment of hospital dentistry based not only on existing data and information, but also on the many conversations with colleagues that Liz Jones had on her visits to units themselves. It is important that everyone working in hospital dentistry, wherever they work and whatever their role, reflects on these recommendations and takes necessary steps to implement them.



Matthew Garrett

*Dean of the Faculty of Dental Surgery at
the Royal College of Surgeons of England*

Executive summary

For the purposes of this report, we have defined hospital dentistry as all dentistry carried out by acute trusts across the 12 clinical dental specialties. These, together with dental public health, comprise the 13 distinct specialties regulated by the General Dental Council.

Dental hospitals provide care in all of the clinical dental specialties, both as commissioned services and as part of their remit as teaching hospitals. In non-dental hospitals, dental units mainly focus on the specialties with the highest demand – oral surgery and orthodontics – and are often located within oral and maxillofacial surgery (OMFS) departments.

There are around 2.2 million outpatient hospital appointments for dentistry each year¹. More than 180,000 people are admitted to hospital for dental procedures, either as overnight stay or day cases².

About our analysis

This report is based on analysis of Hospital Episode Statistics data, responses to questionnaires sent to more than 100 trusts and deep-dive visits to 106 trusts across England. We have focused on the specialties that have OPCS codes attached to procedures – oral surgery, orthodontics, restorative dentistry and paediatric dentistry. We have also considered oral medicine and special care dentistry, which we know see significant numbers of patients.

Common issues across the dental specialties

Coding: understanding the work being done and who does it

We found gaps and anomalies in the collection of data through Hospital Episode Statistics, which limits our understanding of both patient need and the people doing the work, which, in turn, affects our ability to measure outcomes, assure quality and plan the workforce we need.

- Main specialty codes and treatment function codes do not reflect the current landscape of dentistry. For example, some specialties, such as oral medicine, have no main specialty code or treatment function code, while other main specialty codes are either redundant or inappropriate to use e.g. surgical dentistry.
- Often, work is attributed to the consultant responsible (as mandated by NHS Digital) even though they may not be doing the work and have not seen the patient.
- OPCS procedure codes for non-surgical dental specialties, such as orthodontics and restorative dentistry, are poorly-defined and inconsistently applied.

We recommend that main specialty and treatment function codes should be reviewed to ensure they are fit for purpose and the clinician providing the care is identifiable (Recommendation 1), and that procedure codes are reviewed for consistency and clarity (Recommendation 4). We are hopeful that adoption of SNOMED CT may alleviate data issues such as this in the long term.

Primary and secondary (comorbidity) diagnoses are not captured for outpatients, which represent the vast majority of dental cases. We recommend that these details are recorded for dentistry, so that we can understand case-mix and referral patterns more effectively (Recommendation 3).

Hospitals are currently not mandated to record the type of anaesthetic used in any setting. We recommend that the type of anaesthetic used is recorded to enable scrutiny of anaesthetic use and to plan services (Recommendation 2).

Commissioning integrated dental pathways

Since 2013, dentistry has been commissioned directly by NHS England with the intention of providing consistent and equitable access to services across the country. Cases should be triaged between services based on levels of complexity – Levels 1-3 – as set out in the commissioning standards for each specialty. Level 3 cases are the most complex and are generally seen in a hospital setting.

However, we have found that this system is not yet working effectively. Services commissioned from hospitals vary widely from area to area, often depending on local contracts and availability of Level 1 and 2 services outside the hospital.

Many areas do not have referral management systems or, if they do, they are not working effectively to enable appropriate referrals.

¹ Hospital Episode Statistics 2018-19

² See footnote 1 (above)

Managed clinical networks (MCNs) are not yet in place in many areas to oversee integrated care pathways for each specialty and ensure equitable access across a region. Funding for MCNs varies widely and there is a lack of data to enable them to analyse trends and drive up quality.

Strategies to manage the oral health of the population over the longer term are patchy. Trusts need to engage more with local partners and initiatives as part of MCNs, to drive this forward.

We found shortages of consultants and specialists in all of the dental specialties. Lack of specialist staff can form a barrier to commissioning effective services in some areas (see the specialty sections below for specific workforce issues).

To enable integrated pathways and achieve the vision for dentistry set out in the commissioning standards, we recommend that:

- Dental referrals should be part of an e-referral system shared between secondary care and primary care (Recommendation 5).
- All areas should have effective, funded MCNs in each specialty (Recommendation 6).
- Workforce and training for each specialty should be reviewed to meet current and future needs (Recommendation 7).
- Oral health should be managed in an integrated way across primary and secondary care (Recommendation 8).

Managing intra-trust referrals

Oral surgery, OMFS, paediatric dentistry and restorative specialists are regularly asked by medical colleagues to carry out dental assessments as part of pre-operative preparation for cardiac, oncology or haematological, procedures or treatments. Some trusts reported that these requests are taking up an increasing amount of their time and that often the referral is ad hoc and difficult to manage. We recommend that local commissioning should support timely assessment of these complex medical patients in the most appropriate setting (Recommendation 9).

Paediatric dentistry

Reducing hospital extractions, general anaesthetics and waiting times

We found that tooth decay continues to affect children to an unacceptable degree in some populations and in some more deprived areas of the country. Around 33,000 children aged 0-9 had extractions in hospital in 2018/19, the vast majority as a result of tooth decay³.

Most are having their extractions undertaken under general anaesthetic, which should be avoided wherever possible, and many are waiting long periods – over a year in some trusts according to our questionnaire – often in pain. High demand for general anaesthetic is putting pressure on units which have limited access to the theatre facilities they need in order to anaesthetise.

These issues create bottlenecks and long waiting times, and may contribute to some trusts closing their waiting lists for paediatric exodontia and closing to new referrals. This may mean children have to attend dental hospitals, which may be a long way from where they live. Children may also be given antibiotics to manage the symptoms of dental infection while they wait for treatment.

Many children are having multiple general anaesthetics. Treatment needs to be planned in a co-ordinated way to avoid this. However, we found that the vast majority of non-dental hospital trusts do not have a paediatric dentistry specialist.

Inhalation sedation with local anaesthetic may be appropriate as an alternative to general anaesthetic where children are compliant, but we found that this is available in only a minority of trusts.

We recommend that, as part of measures to avoid repeat admissions, all referrals for general anaesthetic for children be accompanied by a robust treatment plan, and that waiting lists for exodontia are reduced through a mix of short and long term measures (Recommendations 10 and 11).

Improving oral health and prevention

We know that not enough children are visiting dentists early enough to receive the preventive advice that can help reduce tooth decay. Many parents do not access the dentist until their child is in pain and it's too late for conservative treatment by a general dental practitioner (GDP).

There are significant inequalities at national, regional and local level, with children from the most deprived areas having almost three times the level of decay than those from the least deprived⁴.

Budget pressures in recent years have led many local authorities to stop initiatives such as school checks, supervised tooth brushing and other targeted interventions to improve oral health, although we also found examples of good oral health programmes in some areas. Economic conditions may also lead to parents choosing cheap sugary foods over healthier options.

To address these issues, we recommend that commissioners and trusts implement the Children's Oral Health Improvement Programme Board (COHIPB) strategies and that child oral health should be included in the newly-created Paediatric Surgery Operational Delivery Networks (ODNs) (Recommendation 12).

Oral surgery

Understanding who is doing the work

Oral surgery care is provided by the dental specialty of oral surgery, and by the medical specialty of oral and maxillofacial surgery (OMFS).

We found the attribution of main specialty and treatment function codes between these specialties is inconsistent and many trusts could not tell us what activity is coded to which specialty.

Many procedures carried out by oral surgeons are attributed to OMFS, as they often work within OMFS departments under an OMFS consultant. Under the data dictionary, attribution of main specialty follows the consultant responsible.

The lack of clarity means we are unable to measure workloads or identify variation in the clinical outcomes of comparable staff to inform workforce planning. We think work done by oral surgeons should be identified as dentistry to help separate and define oral surgery and maxillofacial procedures, and the resources needed for each, to inform good commissioning decisions. This should form part of the wider coding review mentioned above (Recommendation 1).

Appropriate referral and triage

We found that, in many areas, referrals are not being managed according to the levels of complexity in the commissioning standard. Some areas do not have a functioning referral management system.

There is wide variation in the number of people referred for simple extractions in non-dental hospitals from almost none to 1,200 a year⁵. Where volumes are high, this suggests hospitals may be dealing with many less complex procedures which could be managed by GPs or a Level 2 service in primary care.

Some of this activity may be justified by modifiers such as the medical history, psychosocial issues or anxiety. But we cannot tell because these secondary diagnoses are not recorded.

Many areas do have a Level 2 service for oral surgery but there are large gaps in provision across the country. In some places, there are no Level 2 services, or they are not contracted to do the full range of work.

Referrals from general practitioners (GPs) account for 22% of referrals to oral surgery/OMFS⁶. These referrals bypass the appropriate triage system for dental cases and should be referred through a GDP, except in cases of medical necessity. Referrals should be managed in a consistent and co-ordinated way, supported by a managed clinical network (MCN) (Recommendations 5 and 6).

The right hospital setting

We estimate that around 50% of trusts record procedures carried out in an outpatient setting as a zero-day length of stay (day case). This may well be due to a financial incentive, or for historical reasons. Whatever the reason, it means we cannot tell if patients are being treated under the appropriate anaesthetic or in the most appropriate setting, how many general anaesthetics are used in dentistry, and under which circumstances.

We recommend a review of outpatient and day case prices to support appropriate choice of setting, such that day case setting should only be used and recorded where clinically necessary (Recommendation 13).

⁴ Oral health survey of five-year-old children 2017, PHE publications gateway number: 2018081

⁵ See footnote 1

⁶ See footnote 1

Reducing referrals for TMD

We found that many hospitals have no effective referral management system for temporomandibular disorder (TMD), and some accept every TMD case referred to them. From our questionnaire, we estimate there may be up to 73,500 hospital attendances for TMD each year. We think that many of these cases could be managed by appropriate dedicated services outside of hospitals and recommend clearer guidance on when to refer TMD patients, supported by action to reduce barriers to treatment in primary care (Recommendation 14).

Oral medicine

Improving equitable access across geographies

Oral medicine cases include potentially life threatening illnesses and oral manifestations of systemic health conditions. Patients should be triaged based on the level of complexity defined in the commissioning standard, ensuring equitable access, regardless of geography, and the most serious cases should be seen urgently by an oral medicine specialist.

However, we have found that this is difficult to achieve. One problem is that most oral medicine specialists work in dental hospitals based in the large cities. This makes it harder to ensure equitable access to specialist oral medicine care across regions. We recommend that dental and non-dental hospitals work together in hub and spoke networks to deliver care based on shared standards, irrespective of the specialty of the clinician involved, with clearly defined pathways (Recommendation 15).

The need for a main specialty code

Our picture of the specialty is obscured by the lack of a main specialty code or a treatment function code. We recommend that oral medicine codes are introduced as part of the wider review of codes mentioned above (Recommendation 1).

Restorative dentistry

Improving access to specialist care for complex oral rehabilitation

Restorative dentistry in hospitals (Specialist Restorative Dentistry) is for patients with complex dental problems requiring multidisciplinary, specialist dental care – such as those needing oral rehabilitation after surgery for head and neck cancer.

We recommend that the multidisciplinary team delivering their care should have a consultant in restorative dentistry as a core member of the team from the outset (Recommendation 16). This is not happening at the moment. We have found that around 20% of head and neck cancer MDTs do not have a consultant in restorative dentistry.

A workforce to meet future needs

Workforce issues, including a lack of restorative consultants in non-dental hospitals, mean that a restorative dentistry service cannot be commissioned in many non-dental hospitals. Demand for specialist restorative care is likely to grow as the population ages, and retain their natural teeth, requiring more restorative work to maintain their dentition.

Measures should be taken to ensure the workforce meets future needs (Recommendation 7), including possible new training pathways and links with RD-UK education networks.

Coding anomalies

We found anomalies in coding and recording of information that make it difficult to understand restorative dentistry volumes and plan services effectively. These include poorly defined procedure codes and a lack of codes for some procedures. These issues should be addressed by the review of procedure codes mentioned above (Recommendation 4). We also noted a widespread failure to record accurate numbers of implants provided, as these are often commissioned by local agreement.

Orthodontics

Improving quality and access to care

Orthodontic treatment in hospital includes corrective surgery for facial deformity (orthognathic surgery), and treatment for the most complex conditions, such as cleft lip and palate and severe hypodontia, and most often requires multidisciplinary care. Most patients are children and care should be provided as close to home as possible.

Cases should be referred based on the levels of complexity set out in the commissioning standard for orthodontics, with Level 3b complexity seen in hospital. However, efforts to commission Level 2 and 3a services outside of hospital have varied in success, partly depending on the supply of specialists in primary care. This has resulted in some regional inequalities in access to orthodontic care. We think that these issues can be helped by MCNs which can improve system design and advise on how to achieve equitable access across an area (Recommendation 6).

Workforce issues and skills mix

We have found significant problems with recruitment of orthodontic consultants in some areas. In some places, this had led to units closing their doors to new patients, or closing altogether. This can have a knock-on effect on surrounding hospitals – and cause significant inconvenience to patients and families.

Orthodontic therapists can perform a range of tasks that don't require specialist skills. We think hospitals should develop the therapist role, allowing consultants to focus on complex treatment, which enables more patients to be seen. These issues should be addressed by the workforce review mentioned above (Recommendation 7).

Waiting times for orthognathic surgery

In some cases, continuation of orthodontic treatment is held up waiting for oral surgery or OMFS treatment to take place. This may unduly prolong what is already a long orthodontic treatment process. This needs better planning and co-ordination. Patients should not have to wait more than 18 weeks for these treatments once orthodontic treatment has begun (Recommendation 17).

Poorly defined procedure codes

There is considerable variation and confusion in the use of orthodontic procedure codes, with codes poorly defined. Many cases are being recorded as non-specific orthodontic procedures. We support the work of the British Orthodontic Society's Consultant Orthodontic Group (COG) which has agreed definitions and developed guidance for trusts (Recommendation 4). We suggest that the changes should be audited after 12 months to measure the improvements.

Monitoring outcomes through Peer Assessment Rating (PAR)

We found that many trusts are not PAR scoring their cases; a key measure of performance and outcomes for quality management. Some trusts told us that they do not have sufficient staff to perform the assessment. We think this should be mandatory for all completed cases (Recommendation 18).

Special care dentistry

Special care dentistry is for adults who have physical, mental, medical or social care needs. It is most often commissioned from the Community Dental Service (CDS) as part of a personal dental services (PDS) contract.

We found that the contracts, services delivered and relationships between the CDS and hospitals, vary from area to area. This means we can't tell how much work is done in hospitals, whether any work could be done in a different setting or whether alternatives to general anaesthetic might be appropriate.

The main specialty code for special care dentistry is rarely, if ever, used and there are few special care dentists employed in non-dental hospitals. Special care patients might benefit from shared care arrangements with primary care dentists but we found these exist in very few areas.

We recommend that trusts work with GDPs and the CDS to coordinate care for people with special care needs, breaking down barriers between services (Recommendation 19).

Procurement

As in previous GIRFT reports, we advise providers to use a three-pronged strategy to improve procurement (Recommendation 20):

- Use procurement data, such as the NHS Spend Comparison Service (SCS), to understand the variation in products and brands used and identify optimum value for money.
- Develop benchmarks and specifications and look for sources of procurement best practice.
- Use the new NHS procurement Category Towers to benchmark and evaluate products and find opportunities to aggregate demand with other trusts to secure lower prices.

Litigation

Due to the crossover in claims coding and activity coding between OMFS and dental specialties, we grouped them together for our analysis. Data from NHS Resolution shows that clinical negligence claims, including OMFS, were estimated between £9.84m and £33.94m per year over the last five years. There is wide variation between trusts in cost of litigation per activity, with the best performers averaging £0 and one provider on an average of £692. However, overall, there has been a reduction in the volume of claims in recent years.

It was clear during GIRFT visits that many trusts had little knowledge of the claims against them. This means very few lessons have been learnt from the claims to inform future practice. Further work is needed at both a local and national level. We recommend that trusts implement the GIRFT five-point plan to reduce the impact of litigation (Recommendation 21).

Recommendations

Cross-specialty: Understanding the work being done and who is doing it

Recommendation	Actions	Owners	Timescale
1. A review of dentistry main specialty and treatment function codes is required to ensure they are fit for purpose and to better enable quality improvement, workforce planning and service re-design. The clinician responsible for care and the clinician who delivered the care should be identifiable.	a The Faculty of Dental Surgery to work with NHS Digital to ensure that main specialty and treatment function codes are suitable to support attribution of activity to the clinician responsible for care and the clinician who delivered the care, such that this data is suitable to support workforce planning. Concurrently, GIRFT will continue discussions with colleagues regarding how SNOMED may be used to better identify dentistry within national data.	GDC, FDS, GIRFT and NHSD	Within two years of report publication
2. The type of anaesthetic used should be recorded and reported using OPCS4 procedure codes as part of the Commissioning Data Set.	a Trusts to implement coding of anaesthesia using OPCS4 procedure codes for all dentistry day cases in the Commissioning Data Set.	GIRFT, NHS Digital and NHSE and NHSI	Within 12 months of publication
3. Primary and secondary diagnoses (comorbidities) should be recorded for all activity in an outpatient setting, in order to quality assure the services being provided.	a NHSE Dental Commissioning to consider with trusts how this data can be recorded with as little resource input as possible in SUS, and should consider agreeing a data quality improvement plan to guide implementation. Options may include administrative staff selecting diagnoses from a pre-determined list of codes based on referral letters.	NHSE and NHSI	Within 12 months of publication
4. Procedure code use should be reviewed and improved so that all colleagues have clarity on what they mean and they can be consistently applied across all trusts.	a Trusts to implement new code definitions developed by the British Orthodontic Society and GIRFT. BOS should review uptake of this guidance.	NHS Trusts, BOS	Immediate uptake of guidance, with review after 12 months.
	b GIRFT to use its work with the British Orthodontic Society to inform a similar review in restorative dentistry. This is currently underway, and we would hope for trusts to implement within 12 months of publication.	Royal colleges, specialist societies, GIRFT and NHS Digital	Within 12 months of publication

Cross-specialty: Commissioning integrated dental pathways

Recommendation	Actions	Owners	Timescale
5. Dental referrals should be part of an e-referral management system to ensure they are managed in a consistent and co-ordinated way, for example whether from a general dental practitioner, general practitioner or the Community Dental Service.	a Explore options for reducing the inconsistency between referral systems from area to area, and also between dentistry and the e-referral service.	NHSE and NHSI	For progress within one year of publication
	b Develop referral protocols aligned with the dental commissioning standards.	NHSE and NHSI	For progress within one year of publication
	c Based on 5a and 5b, develop a plan to support the implementation of the e-referral system.	NHSE and NHSI	To commence after delivery of 5b
	d Provide training for general dental practitioners and general practitioners to ensure they are aware of the referral criteria and the consequences of not referring patients correctly.	NHSE and NHSI	To commence after delivery of 5b

Cross-specialty: Commissioning integrated dental pathways

Recommendation	Actions	Owners	Timescale
<p>6. All areas should have funded and effective managed clinical networks (MCNs) in each dental specialty as set out in the dental commissioning standards, including representatives from primary care, public health, general practitioners and the Community Dental Service where relevant. MCNs should liaise with and feed into integrated care systems (ICS).</p>	<p>a Develop a baseline of which areas have MCNs, in which specialties and how they are aligned with the commissioning standards.</p>	GIRFT, NHSE and NHSI	For progress within one year of publication
	<p>b In liaison with NHS England and NHS Improvement, identify the barriers to establishing MCNs (as set out in the commissioning standards) and develop a plan to mitigate these.</p>	GIRFT, NHSE and NHSI	To commence following 6a
	<p>c Audit the MCNs to ensure they are functioning effectively.</p>	GIRFT, NHSE and NHSI	For continual action following 6b
<p>7. Workforce and training for each dental specialty should be reviewed to meet the current and future needs of the changing and ageing population in each location. The clinical academic workforce should be a priority to ensure that undergraduate and postgraduate training programmes can be delivered.</p>	<p>a Following the NHS People Plan, and in conjunction the Advancing Dental Care review, investigate workforce requirements and innovative training solutions for each specialty.</p>	NHSE and NHSI (with links to MCNs), HEE, royal colleges, specialist societies	To commence following report publication
	<p>b Develop an implementation plan based on 7a.</p>	NHSE and NHSI, HEE, royal colleges, specialist societies	Upon completion of 7a
<p>8. Oral health should be recognised as an essential part of general health and wellbeing. There should be a holistic integrated approach, with particular emphasis on hard to reach groups, across secondary care, primary care dentistry, medicine and pharmacy, through integrated care systems (ICS) and primary care networks (PCNs).</p>	<p>a Nationally, NHS England to develop clear policy direction on the inclusion of dentistry and oral health in the system transformation outlined in the NHS Long Term Plan.</p> <p>Regionally, NHS system leaders, commissioners of dentistry and Local Dental Networks should look to identify opportunities for the inclusion of dentistry in their local system design to support prevention, population health, personalised care and integrated services.</p>	NHSE and NHSI, along with local systems	To commence following report publication

Cross-specialty: Managing intra-trust referrals

Recommendation	Actions	Owners	Timescale
<p>9. Local commissioning should ensure that patients with complex medical conditions referred for dental assessment from departments such as oncology, haematology and cardiology, should be seen in a timely fashion in the most appropriate setting. National guidelines should be developed to enable this.</p>	<p>a Develop national commissioning standards for intra-trust referrals.</p>	NHSE and NHSI, specialist societies, Faculty of Dental Surgery	For progress within two years of report publication
	<p>b Use the commissioning standards to inform the local commissioning of pre-treatment dental examination.</p>	LDN working with their MCNs and commissioners	To commence following delivery of 9a
	<p>c Oversee the implementation of standards.</p>	LDN working with their MCNs and commissioners	Concurrent to 9b
	<p>d Carry out local audits to collect accurate data on referrals.</p>	LDN working with their MCNs and commissioners	As required following delivery of 9b and 9c

Paediatric dentistry

Recommendation	Actions	Owners	Timescale
<p>10. As part of measures to avoid repeat admissions for general anaesthetic, all referrals for children requiring GA for dental extractions should be accompanied by a robust and appropriate treatment plan. Dentists providing this, who are not specialists, must be aligned to a specialist-led paediatric dental MCN.</p>	<p>a Develop an action plan to support the development of shared paediatric treatment plans between general dental practitioners and specialist-led paediatric dental MCNs.</p>	NHSE and NHSI and MCNs	For substantial progress within one year of publication
	<p>b Consider ways of reducing the number of general anaesthetics, for example by piggy-backing dental extractions onto other procedures such as ENT, where this is appropriate and will not lead to delays in treatment.</p>	Trusts, MCNs	For substantial progress within six months of publication
	<p>c Establish a national audit and service evaluation of paediatric dental anaesthesia services, looking at access to services, quality, provision and need.</p>	NHSE and NHSI	For substantial progress within two years of publication
<p>11. Waiting lists for children requiring exodontia must be reduced. There should be a clear aspiration that children at risk of oral infection should wait no more than 14 days from referral to treatment, and should not be prescribed multiple courses of antibiotics as a result of the wait.</p>	<p>a Establish a working group to include providers and input from the Department for Health, Public Health England, commissioners and the wider paediatric community to come up with strategies and solutions for:</p> <ul style="list-style-type: none"> access to general anaesthetic facilities for children who need exodontia to reduce current waiting lists. reducing waiting times for children over the longer term. 	GIRFT, NHSE and NHSI	For immediate consideration upon publication
	<p>b The group should collect and review data to include:</p> <ul style="list-style-type: none"> numbers of children waiting in three categories: <ol style="list-style-type: none"> routine exodontia for fit and well children medically compromised children children who have been treatment planned for comprehensive care (restorations and extractions) under general anaesthetic what percentage are in pain what percentage have been prescribed antibiotics, number of courses, and by whom. 	GIRFT, NHSE and NHSI	To commence after formation of the working group, with data to be reviewed within 6-12 months
<p>12. Strategies from the Children's Oral Health Improvement Programme Board (COHIPB) should be implemented at provider and commissioner level. Children's oral health should be treated as a high priority as part of the overall paediatric wellbeing agenda and be included in the work of the newly-created Paediatric Surgery Operational Delivery Networks (ODNs).</p>	<p>a Liaise with the COHIPB Board to support the development of strategies to reduce inequalities in children's oral health.</p>	NHS England, MCNs and trusts	To commence immediately following publication, and on an ongoing basis
	<p>b The designated children's lead in each trust to include paediatric dentistry as part of their brief, including reporting on the number of extractions performed on children under general anaesthetic, linking with the ODNs. This supports the recommendation in the GIRFT report on paediatric surgery to ensure the children's voice is heard.</p>	NHSE and NHSI, trusts	Within six months of publication
	<p>c Develop and implement plans which will support dental care and oral health of children which includes:</p> <ul style="list-style-type: none"> providing simple preventative advice to families of children; championing the British Dental Association's 'Was Not Brought' safeguarding guidelines; 	Trusts	For progress within six months of publication

Recommendation	Actions	Owners	Timescale
<p>12. (Continued)</p> <p>Strategies from the Children's Oral Health Improvement Programme Board (COHIPB) should be implemented at provider and commissioner level. Children's oral health should be treated as a high priority as part of the overall paediatric wellbeing agenda and be included in the work of the newly-created Paediatric Surgery Operational Delivery Networks (ODNs).</p>	<ul style="list-style-type: none"> ensuring that the dental part of the Personal Child Health Record is completed by midwives and health visitors and that they have good knowledge of child and baby oral health improvement; making sure that waits of over 18 weeks are on the trust risk register; making sure that child dental lists are not cancelled, including those run by the CDS; establishing or supporting a child oral health programme; championing initiatives such as Smile4Life and Dental Check by One. 	Trusts	For progress within six months of publication

Oral surgery

Recommendation	Actions	Owners	Timescale
<p>13. Outpatient and day case prices for dental procedures should be reviewed to ensure they support clinically appropriate choices of setting and remove perverse incentives for inaccurate recording. Specifically, a day case setting should only be used and recorded where clinically necessary, for example where general anaesthetic or sedation requiring recovery is used.</p>	<p>a NHS England and NHS Improvement, with case-mix colleagues in NHS Digital, to review outpatient and day case prices, once Recommendation 2 on coding of anaesthetics has been implemented and the definition of an outpatient procedure has been reviewed (as recommended by the GIRFT report on Oral and Maxillofacial Surgery).</p>	NHSE and NHSI, NHSD, GIRFT	To commence after the definition of an outpatient procedure is reviewed and upon completion of action 2a.
<p>14. Forthcoming revised guidance from the Royal College of Surgeons should be used to provide general dental practitioners and general practitioners clarity on when to refer TMD patients to secondary care. The guidance should also be used to consider whether more care currently provided in hospitals could be provided by a level 2 service based in primary care. This should be supported by action to reduce barriers to treatment in primary care and embed the guidance into everyday practice.</p>	<p>a Establish a national multidisciplinary working group to be chaired by an expert in TMD who has sufficient depth and breadth of knowledge to deliver on the national scale but also to learn lessons from other countries and their systems of care.</p>	NHSE and NHSI	To commence upon publication of the guidance
	<p>b Review barriers to treating TMD in primary care, including the high cost to patients of some appliances, as part of the contract reform process.</p>	The multi-disciplinary group set up by action 14a	To commence following 14a
	<p>c Update and revise the Royal College of Surgeons guidelines for primary care management of TMD, with guidance on how services should be provided for TMD patients across primary and secondary care. This should take into account existing research such as the NIHR-funded DEEP study and on-going international collaborative research into self-management.</p>	The multi-disciplinary group set up by action 14a	To commence following 14a

Oral medicine

Recommendation	Actions	Owners	Timescale
15. Dental and non-dental hospitals and primary care should work together in regional oral medicine networks to manage referrals and deliver care to shared standards based on a hub and spoke model and clearly defined pathways as outlined in the NHS England commissioning standard.	a Oral Medicine MCNs to be set up to include hospital OMFS and oral surgery units, tertiary oral medicine consultants, GDPs and GPs so that shared standards and care pathways can be agreed.	GIRFT, NHSE and NHSI, providers	Discussion to begin following publication
	b Develop a plan for change.	MCNs, NHSE and NHSI, trusts	Upon completion of 15a

Restorative dentistry

Recommendation	Actions	Owners	Timescale
16. All head and neck cancer, cleft lip and palate and hypodontia MDTs should have a consultant in restorative dentistry as a core member of the team from the outset. The consultants from each specialty should ensure that the patient can move through the treatment seamlessly, without system delays that can cause iatrogenic damage. For children under 18 a paediatric dentist must be involved.	a Review the number of MDTs with a consultant in restorative dentistry.	NHSE and NHSI, GIRFT, RD-UK	For progress within one year of publication
	b Explore how to attract new consultants to work in non-dental hospital trusts. Consider linking with the RD-UK consultant and specialist group, which provides clinical excellence networks for cleft lip and palate, hypodontia and head and neck cancer. These networks provide education and improvement programmes to support delivery of high quality care.	MDTs, trusts, NHSE and NHSI, MCNs	For progress within one year of publication
	c Develop a plan which is aligned with the specialised commissioning of head and neck cancer to fill the gaps and support future needs.	NHSE and NHSI	For consideration following report publication

Orthodontics

Recommendation	Actions	Owners	Timescale
17. Where orthognathic surgery or oral surgery is planned after orthodontic treatment has already begun, patients should not have to wait more than 18 weeks for the surgery, so as not to unduly extend already lengthy orthodontic treatment times and increase the risk of iatrogenic damage.	a Review British Orthodontic Society audit data on waiting times for orthognathic surgery, tooth exposures and extractions required as part of the orthodontic treatment process.	Trusts	For progress within six months of implementation
	b Based on 17a, if the wait is longer than three months, put a plan in place to investigate the causes and reduce waiting times.	Trusts	
	c Participate in national audits of orthognathic treatment outcomes.	Trusts	
18. The Peer Assessment Rating Index should be recorded for every completed orthodontic case with robust external audit of outcomes reported and reviewed through the managed clinical network.	a Establish a champion to enable the monitoring of orthodontic treatment outcomes.	MCNs, trusts	For progress within one year of publication

Special care dentistry

Recommendation	Actions	Owners	Timescale
19. Trusts should work with general dental practitioners and the Community Dental Service (CDS) to provide joined-up and co-ordinated dental care for children and people with special care needs, identifying and breaking down traditional barriers between settings as envisioned by NHS Long Term Plan.	a Develop a working group including Public Health England, NHS England, Health Education England, NHS Business Services Authority and specialist societies to: <ul style="list-style-type: none"> • Develop a clinically-led review of the CDS and the General Dental Service • Understand current barriers and how to break them down to enable shared care of special care patients • Explore different models of collaborative working between secondary care, general dental practitioners and the CDS, such as sharing advice by telephone or email on how to treat patients with medical complexity. 	NHSE and NHSI, specialist societies	For consideration following report publication
	b Put a plan in place for system change to support shared care arrangements.	NHSE and NHSI, specialist societies	Following completion of 19a

Procurement

Recommendation	Actions	Owners	Timescale
20. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.	a Use sources of procurement data, such as the NHS Spend Comparison Service and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.	GIRFT	For progress within six months of publication
	b Identify opportunities for improved value for money, including the development of benchmarks and specifications. Locate sources of best practice and procurement excellence, identifying factors that lead to the most favourable procurement outcomes.	GIRFT	Concurrent to 20a
	c Use Category Towers to benchmark and evaluate products and seek to rationalise and aggregate demand with other trusts to secure lower prices and supply chain costs.	GIRFT, trusts, STPs	Concurrent to 20a and 20b

Litigation

Recommendation	Actions	Owners	Timescale
<p>21. Reduce litigation costs by application of the GIRFT Programme's five-point plan - see actions 21a-e.</p>	<p>a Clinicians and trust management to assess their benchmarked position compared to the national average when reviewing the estimated litigation cost per activity. Trusts would have received this information in the GIRFT litigation data pack.</p>	Trusts	For immediate action
	<p>b Clinicians and trust management to discuss with the legal department or claims handler the claims submitted to NHS Resolution included in the data set to confirm correct coding to that department. Inform NHS Resolution of any claims which are not coded correctly to the appropriate specialty via CNST.Help@resolution.nhs.uk</p>	Trusts	Upon completion of 21a
	<p>c Once claims have been verified clinicians and trust management to further review claims in detail including expert witness statements, panel firm reports and counsel advice as well as medical records to determine where patient care or documentation could be improved. If the legal department or claims handler needs additional assistance with this, each trusts panel firm should be able to provide support</p>	Trusts	Upon completion of 21b
	<p>d Claims should be triangulated with learning themes from complaints, inquests and serious untoward incidents (SUI)/serious incidents (SI)/patient safety incidents (PSI) and, where a claim has not already been reviewed as SUI/SI/PSI, we would recommend that this is carried out to ensure no opportunity for learning is missed. The findings from this learning should be shared with all front-line clinical staff in a structured format at departmental/directorate meetings (including MDT meetings, morbidity and mortality meetings where appropriate).</p>	Trusts	Upon completion of 21c
	<p>e Where trusts are outside the top quartile of trusts for litigation costs per activity GIRFT we will be asking national clinical leads and regional hubs to follow up and support trusts in the steps taken to learn from claims. They will also be able to share with trusts examples of good practice where it would be of benefit.</p>	Trusts	For continual action throughout GIRFT programme

What is hospital dentistry?

For the purposes of this report, we have defined hospital dentistry as all dentistry carried out by acute trusts across the 12 clinical dental specialties. These, together with dental public health, comprise the 13 distinct specialties regulated by the General Dental Council.

Generally, these are the most complex dental cases that require specialist skills and knowledge and multi- and inter-disciplinary working. Children and patients with special care needs may be seen in hospital if their care cannot be managed by either general dental practitioners (GDPs) or dentists working within the Community Dental Service (CDS) and they need a general anaesthetic for their dental treatment.

Less complex procedures, such as simple extractions on patients without comorbidities, may also be carried out in hospitals for training purposes at both undergraduate and post-graduate levels, so the next generation of dentists can gain experience, or as part of local commissioning agreements.

There are around 2.2 million outpatient hospital appointments for dentistry each year⁷. More than 180,000 people are admitted to hospital for dental procedures, either as overnight stay or zero-day length of stay (day cases)⁸.

Other dentistry services

Hospital dentistry accounts for around 5% of all dentistry, with around 95% provided in primary care by GDPs, both NHS and private, and other locally-based services often provided in dental practices or health centres⁹. These include the CDS, which provides services for children and/or adults with special care needs. In many areas, the CDS has links with acute trusts.

This mix of primary and secondary care services is intended to provide a range of options, so patients can receive appropriate care in the most appropriate setting based on the level of complexity. However, there are significant variations in the availability of community dental services across the country.

Dental hospitals

Dental hospitals provide care in all of the dental specialties as part of their remit to train undergraduates, and as commissioned services receiving referrals from GDPs for patients who require specialist care (see *The dental specialties*, below). They also act as a tertiary care provider for the most complex cases that need to be referred from non-dental hospitals. The majority of dental hospitals in England are affiliated to dental schools and based in major population centres including London, Birmingham, Manchester, Liverpool, Newcastle, Sheffield, Leeds and Bristol.

Non-dental hospitals

Most acute hospital trusts in England host dental specialties, either standalone or within oral and maxillofacial surgery departments. They mainly focus on the specialties with the highest demand: oral surgery and orthodontics. Some also offer paediatric and restorative dentistry but many hospitals do not have specialists available in these specialties (see *Main specialties: the national picture*, page 24). A number of non-dental hospitals train postgraduates and therefore, like the dental hospitals, they also need a wide case-mix including some simple procedures.

The dental specialties

There are 13 dental specialties, which we have described below. All the specialties have their own specialist list held by the General Dental Council (GDC). Twelve of the specialties are clinical, with one non-clinical specialty (dental public health).

Dental and maxillofacial radiology

Involves all aspects of medical imaging which provide information about anatomy, function and diseased states of the head and neck, teeth and jaws.

Dental public health

A non-clinical specialty devoted to the prevention of oral disease and promotion of oral health, focusing on the whole population rather than individual patients.

⁷ See footnote 1

⁸ See footnote 1

⁹ National Association of Primary Care: *Primary Care Home - exploring the potential for dental care to add value*, 2018 page 12 <https://napc.co.uk/wp-content/uploads/2018/01/Dental-care-and-PCH.pdf>

Endodontics

Diagnosis, prevention and treatment of diseases and injuries of the tooth root, dental pulp, and surrounding tissue.

Oral and maxillofacial pathology

Diagnosis and assessment made from tissue changes characteristic of disease of the oral cavity, head and neck, jaws and salivary glands.

Oral medicine

Oral medicine involves the diagnosis and non-surgical management of chronic, recurrent and medically-related disorders of the mouth, such as mucosal disease, salivary gland disease and orofacial pain. Oral medicine is often grouped with the specialties of oral and maxillofacial pathology, oral and maxillofacial radiology and oral microbiology, and referred to as 'dental medicine specialties'. Until relatively recently, specialist training in oral medicine required dual qualification in medicine and dentistry and completion of a three-year training programme. More recently a five-year training programme and curriculum has been established for those with an undergraduate qualification in dentistry only.

Oral microbiology

Diagnosis and assessment of facial infection, typically bacterial and fungal disease. This is a clinical specialty undertaken by laboratory-based personnel who provide reports and advice based on interpretation of microbiological samples, as well as having a national advisory role.

Oral surgery

Oral surgery deals with the diagnosis and management of the pathology of the mouth and jaws that requires surgical intervention. It includes the treatment of children, adolescents and adults, and the management of dentally anxious and medically complex patients. The emerging specialty of special care dentistry also provides these services for adults with complex needs – see below.

Oral surgery procedures range from simple extractions to complex cases involving bone or tissue removal, and those with a high risk of complications such as nerve damage or alveolar fracture. Oral surgery care is provided by oral surgeons and by oral and maxillofacial surgeons (OMFS) as the curricula and clinical competencies of these two specialties overlap (see Oral surgery, page 47).

Orthodontics

Orthodontics is the dental specialty concerned with facial growth, development of the teeth and the occlusion (the contact between the upper and lower teeth), and the diagnosis and treatment of malocclusions and facial irregularities.

Orthodontic treatment involves appliances and includes treatment for complex conditions such as severe hypodontia, and corrective surgery for facial deformity (orthognathic surgery) and patients with cleft lip and palate and craniofacial anomalies.

Paediatric dentistry

Paediatric dentistry provides specialist oral healthcare for children from birth to adolescence. This includes children and young people up to 16 and, in some cases, 18, who:

- have extensive oral disease or developmental disorders of the teeth and mouth;
- experience moderate or severe dental trauma;
- present with congenital facial abnormalities, such as craniofacial anomalies or cleft lip and palate;
- have intellectual, medical, physical, social, psychological or emotional complications or disabilities that affect their oral healthcare;
- are either too anxious or too young to accept routine dental treatment.

Periodontics

Diagnosis, treatment and prevention of diseases and disorders (infections and inflammatory) of the gums and other structures around the teeth.

Prosthodontics

The replacement of missing teeth and associated soft and hard tissues by prostheses (crowns, bridges, dentures) which may be fixed or removable, or may be supported and retained by implants.

Restorative dentistry

Specialist restorative dentistry is for patients with complex dental problems requiring multidisciplinary care and is usually consultant-delivered in a hospital setting. It includes replacing missing teeth, repairing damaged teeth and rehabilitation of the whole mouth, based on specialist skills and knowledge from prosthodontics, periodontics and endodontics.

Specialist care includes management of developmental conditions such as hypodontia, cleft lip and palate and amelogenesis imperfecta in conjunction with paediatric dentistry, oral rehabilitation of head and neck cancer and complex dental trauma, and treatment of aggressive periodontitis.

A broader range of specialist restorative dentistry can be provided in dental hospitals including the individual mono-specialties of prosthodontics, periodontics and endodontics (see above).

Special care dentistry

Special care dentistry focuses on improving the oral health of people over 16 who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability or a combination of these issues. It includes the important period of transition as the adolescent moves into adulthood.

About our analysis

The analysis we carried out in developing this report is based on the Getting It Right First Time (GIRFT) programme model (see page 81).

First, we gathered all of the relevant existing data related to NHS dentistry provided in both dental hospitals and non-dental hospitals from the Hospital Episode Statistics (HES). Using these data, we benchmarked providers on key measures which identified variation in practise and outcomes.

We also sent extensive questionnaires to over 100 hospital trusts across England.

A data pack specific to each trust was developed. We then visited trusts to present the data in depth to clinicians, senior management and all those involved in delivering services. We visited 95 non-dental hospitals and all of the dental hospitals affiliated to dental schools. During these deep-dive visits we discussed the variation in the data and how the trust stands in relation to their peers. These discussions have informed our findings and recommendations.

This report has been reviewed and considered by relevant stakeholders before publication, and secured strong support for both the overall direction of travel and specific recommendations.

Data limitations

In trying to form a clear picture of the data for hospital dentistry we faced a number of data limitations as a result of anomalies in coding and recording of information. This is discussed further in the section of this report *Common issues across the dental specialties*, page 24.

The scope of this report

In this report we focus on the four main specialties that have OPCS codes attached to procedures:

- paediatric dentistry
- oral surgery
- orthodontics
- restorative dentistry

We also consider oral medicine and special care dentistry. Although there are no specific procedure codes for these two specialties, we understand that hospitals are doing a significant amount of work in these areas.

We have not looked at the other specialties, including dental and maxillofacial radiology, oral and maxillofacial pathology and oral microbiology because they are not primarily or directly patient-facing. We wanted to look at maxillofacial radiology and included the specialty in the questionnaires sent to trusts but we received very few responses on this activity.

Some trusts told us that they are seeing high attendances in A&E for dental problems but we were unable to look at this issue as analysis of emergency care is outside the scope of this GIRFT review.

Findings and recommendations

Common issues across the dental specialties

Through the GIRFT process and our deep-dive visits, we found common system-wide issues and challenges recurring in hospital trusts, across the dental specialties and geographic areas. In particular, many of the trusts we talked to highlighted that:

- Inconsistent data capture limits our understanding of both patients and the people doing the work which, in turn, affects our ability to measure outcomes, assure quality and plan the workforce we need.
- The commissioning of dental services between primary care, secondary care and community services is inconsistent across England with the availability of managed clinical networks (MCNs) patchy. This makes it difficult to ensure that patients are seen in the most appropriate setting based on the level of complexity and need.

Understanding and managing these issues is particularly important in dentistry because of its unique structure. Unlike in medicine, where most procedures take place in hospital, the vast majority of dental procedures are carried out in primary care and only a small proportion, albeit the most complex, in secondary care. Changes in referral patterns from primary care have a significant impact on hospitals' ability to cope with demand, which can increase treatment waiting times and affect patient care.

We have outlined the key overarching challenges here. They are also addressed in detail as they apply to each specialty in the following sections of the report.

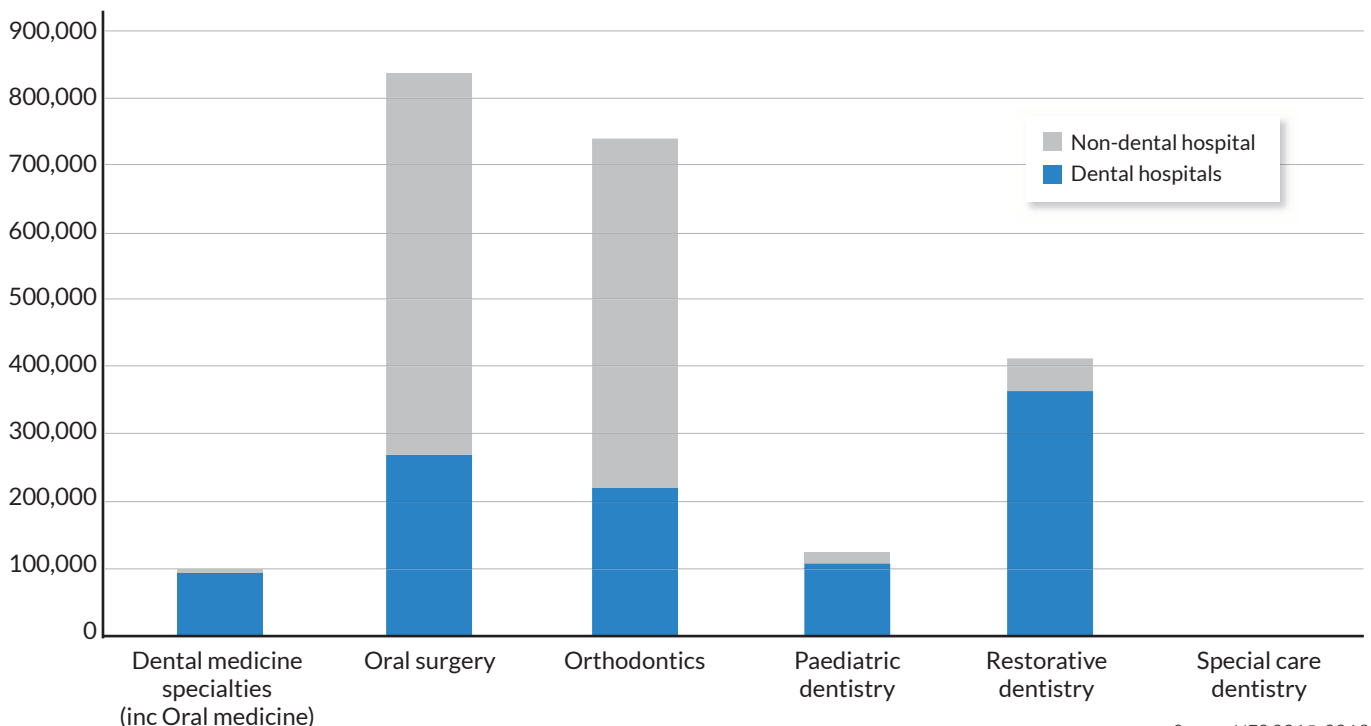
Coding: understanding the work being done and who does it

There is a lack of clarity across hospital dentistry about the work being done, volumes of work in each specialty and who is doing it.

Main specialties: The national picture

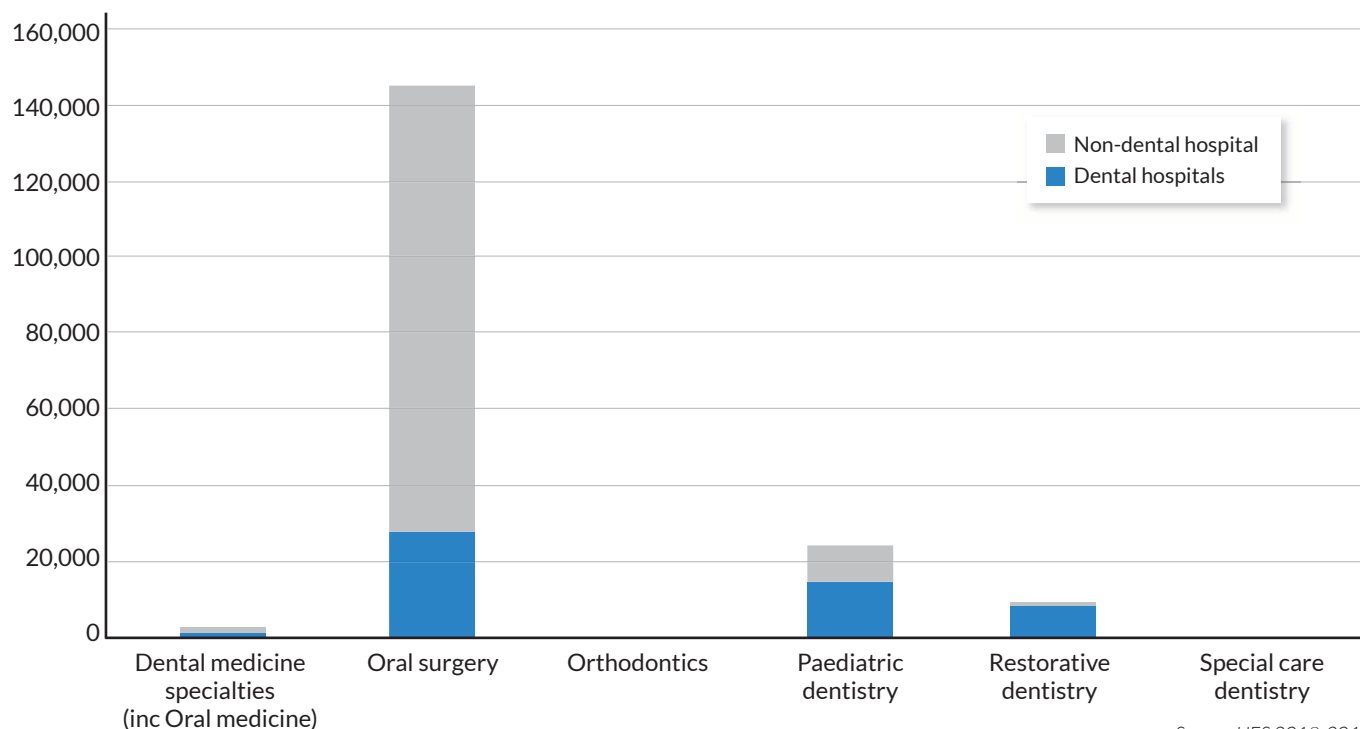
Figure 1 shows the volumes of work attributed to the dental specialties covered in this report. The charts show oral surgery and orthodontic care are widely available in hospital trusts but there is limited recording of paediatric dentistry, restorative dentistry and oral medicine services outside of the dental hospitals due to coding issues.

Figure 1a: Total national volumes of hospital dentistry cases, outpatient by main specialty



Source: HES 2018-2019

Figure 1b: Total national volumes of hospital dentistry cases, elective inpatients by main specialty



Source: HES 2018-2019

However, these charts record only the main specialties of the responsible consultant and do not measure dental activity precisely. For example in non-dental hospitals, where there are very few consultants in paediatric dentistry, we found that a lot of dentistry on children is being carried out, but this is generally undertaken by oral surgery or OMFS and attributed to their main specialty¹⁰. This means some specialty-specific activity is hidden.

To measure the true level of dentistry being performed on children, we need to look at the individual procedure codes and the ages of the patients having those procedures. Using this method, we found that the number of people aged 0-18 being seen for exodontia in non-dental hospitals is more than 47,600 but only around 20,000 of these are attributed to paediatric dentistry¹¹. Most of the other 27,600 cases (58% of the total) are attributed to oral surgery or OMFS.

In special care dentistry (SCD), which provides dentistry for adults with special care needs, the main specialty code is rarely used. It is almost impossible to identify the level of provision from the HES data, as the specific comorbidities that would identify these patients are not captured for outpatients, and only variably captured for inpatients.

The main specialty code of 'dental medicine specialties' is also used infrequently and has little meaning or relevance today. Many trusts could not tell us what procedures had been attributed to this code and there is a general lack of clarity about what specialties the code is meant to include.

Anomalies in main specialty and treatment function codes

Our picture of who is doing the work is clouded by gaps and anomalies in the main specialty and treatment function codes allocated to dentistry, highlighted in table 1 below.

- In some cases, there is no main specialty code even though there is a specialty, for example oral medicine (see *Oral Medicine*, page 56).
- In others, a main specialty code exists but is not being used, for example *Special care dentistry* (see page 71).
- Often, the work is attributed to the consultant responsible (as mandated by NHS Digital) even though they may not be doing the work, or indeed may never have seen the patient. This is discussed in the *Oral Surgery* section, page 47.
- Surgical dentistry has a main specialty code but it is no longer a recognised dental specialty.

¹⁰ For an explanation of the main specialty code, see https://www.datadictionary.nhs.uk/data_dictionary/attributes/m/main_specialty_code_de.asp?shownav=1

¹¹ See footnote 1

- Dental medicine specialties includes three dental specialties, so is of limited use and is inappropriate to use.
- General practice and general dental practice have codes even though there are no consultants in these categories.
- Dentistry has more main specialty codes than treatment function codes.

Table 1: Main specialty and treatment function codes in dentistry for use from April 2021

Main specialty codes	Treatment function codes
140 Oral Surgery	140 Oral Surgery Service
141 Restorative Dentistry	141 Restorative Dentistry Service
142 Paediatric Dentistry	142 Paediatric Dentistry Service
143 Orthodontics	143 Orthodontic Service
	144 Maxillofacial Surgery Service
145 Oral and Maxillofacial Surgery	145 Oral and Maxillofacial Surgery Service
146 Endodontics	
147 Periodontics	
148 Prosthodontics	
149 Surgical Dentistry	
	217 Paediatric Oral and Maxillofacial Surgery Service
450 Dental Medicine	450 Dental Medicine Service
451 Special Care Dentistry	451 Special Care Dentistry Service
601 General Dental Practice	
902 Community Health Services Dental	
904 Public Health Dental	
950 Nursing	
960 Allied Health Professional	

The need for a review of main specialty and treatment function codes

It is clear that the main specialty codes and treatment function codes do not reflect the current landscape of dentistry and need to be reviewed. The Faculty of Dental Surgery of the Royal College of Surgeons of England should be responsible for reviewing the main specialty and treatment function codes, in liaison with the Data Co-ordination Board, NHS Digital and professional groups to ensure they are fit for purpose for dentistry. Codes should be added or retired as appropriate.

This is particularly important for dentistry as around 95% of dentistry is provided in primary care (unlike medicine), and in many cases by specialists on a specialist list held by the GDC. Depending on the outcome of this work, it may be helpful to review how main specialty is described in the NHS data dictionary to best reflect clinical practice.

Main specialty and treatment function codes

The **main specialty** code is a unique code that identifies the specialty delivering the service, as designated by the royal colleges. Under the NHS Data Dictionary, work should be attributed to the specialty of the consultant responsible.

The **treatment function** code identifies the service setting under which the patient is treated such as a clinic or ward. According to the NHS Data Dictionary, treatment function codes should not be selected on the basis of the procedure carried out, meaning a maxillofacial procedure performed in an oral surgery clinic would be recorded as oral surgery under the treatment function code.

Examples of main specialty and treatment function code attribution:

A. A patient referred to an OMFS service, a specialist oral surgeon delivers the surgical procedure in an oral surgery day unit.

Main specialty would be OMFS under data dictionary rules.

Treatment function code is oral surgery as the 'clinic or facility' is oral surgery.

B. A patient is referred to an OMFS unit for an oral medicine condition. The patient is seen by an OMFS surgeon in an outpatient clinic designated as an oral medicine clinic.

Main specialty is OMFS.

The treatment function code might logically be oral medicine, as the clinic should be an oral medicine clinic, but an oral medicine treatment function code is not available.

C. A patient with significant comorbidities such that they have special care needs is referred to an OMFS service and has comprehensive care delivered by the Community Dental Service which has a service level agreement with the trust to use the trust's facilities. The patient's care is undertaken in an oral surgery day unit.

Main specialty would currently be OMFS but might be recorded as Special Care Dentistry or Community Health Services dental.

Treatment function code will be oral surgery unless that session is designated as special care dentistry or, in the absence of a special care dentistry service or clinic, community health services dental.

D. A patient referred to the OMFS service for a dental surgical procedure and is treated as an outpatient by an oral surgeon.

Main specialty would be General Dental Practice or OMFS but may appropriately be specialist oral surgeon

Treatment function code is oral surgery if the outpatient clinic is designated as an oral surgery clinic.

Poorly defined procedure codes

Procedure codes (codes from the OPCS classification – see glossary) were originally designed for surgical specialties. So the codes for oral surgery are mostly well-defined with clear descriptors. However, in the non-surgical dental specialties, such as orthodontics and restorative dentistry, the codes are poorly-defined and inconsistently applied.

One trust we visited recorded 5,000 procedures under a 'non-specific' orthodontic procedure code but could not tell us what was included in that code. Outpatient clinics tend to use outcome slips to record activity rather than the coding teams reviewing clinical notes and we have found wide variation in the orthodontic outcome slips used in hospitals.

Only by having a consistent approach can variation in treatments and outcomes be measured. GIRFT has worked with the Consultant Orthodontic Group (COG) of the British Orthodontic Society (BOS) to come up with agreed interpretations of the definitions for the orthodontic codes and to suggest which codes should be used for which procedures (see *Improving definitions of orthodontic procedure codes*, page 70). We suggest similar work is undertaken for the other non-surgical dental specialties so consistency of coding is improved.

Understanding each patient: recording of diagnosis, comorbidities and anaesthesia

All outpatient visits are recorded on HES but primary and secondary (comorbidity) diagnoses are not captured. This was highlighted when we tried to look at the number of patients attending hospital for temporomandibular disorder (see page 10).

The lack of recording of primary and secondary diagnoses for outpatients means we are not able to tell the level of complexity that may be involved in a procedure based on the patient's mental and physical health, and therefore whether appropriate cases are being referred and treated in the hospital setting.

There is no mandated requirement for trusts to record the type of anaesthesia used. For dentistry, it is important to know which anaesthesia is being used in all settings – outpatient, zero-day length of stay (day case) and inpatient. In particular, it would be good to know what levels of sedation are being used, for example whether local anaesthesia is being used with conscious sedation or if intravenous sedation is being used. Intravenous sedation may be used in certain circumstances for procedures that would otherwise need a general anaesthetic and therefore theatre facilities.

Knowing more about the use of sedation would allow comparison between trusts and might encourage those trusts with a higher than average general anaesthetic rate to consider providing a sedation service for appropriate cases.

Coding recommendations

Recommendation	Actions	Owners	Timescale
1. A review of dentistry main specialty and treatment function codes is required to ensure they are fit for purpose and to better enable quality improvement, workforce planning and service re-design. The clinician responsible for care and the clinician who delivered the care should be identifiable.	a The Faculty of Dental Surgery to work with NHS Digital to ensure that main specialty and treatment function codes are suitable to support attribution of activity to the clinician responsible for care and the clinician who delivered the care, such that this data is suitable to support workforce planning. Concurrently, GIRFT will continue discussions with colleagues regarding how SNOMED may be used to better identify dentistry within national data.	GDC, FDS, GIRFT and NHSD	Within two years of report publication
2. The type of anaesthetic used should be recorded and reported using OPCS4 procedure codes as part of the Commissioning Data Set.	a Trusts to implement coding of anaesthesia using OPCS4 procedure codes for all dentistry day cases in the Commissioning Data Set.	GIRFT, NHS Digital and NHSE and NHSI	Within 12 months of publication
3. Primary and secondary diagnoses (comorbidities) should be recorded for all activity in an outpatient setting, in order to quality assure the services being provided.	a NHSE Dental Commissioning to consider with trusts how this data can be recorded with as little resource input as possible in SUS, and should consider agreeing a data quality improvement plan to guide implementation. Options may include administrative staff selecting diagnoses from a pre-determined list of codes based on referral letters.	NHSE and NHSI	Within 12 months of publication
4. Procedure code use should be reviewed and improved so that all colleagues have clarity on what they mean and they can be consistently applied across all trusts.	a Trusts to implement new code definitions developed by the British Orthodontic Society and GIRFT. BOS should review uptake of this guidance.	NHS Trusts, BOS	Immediate uptake of guidance, with review after 12 months.
	b GIRFT to use its work with the British Orthodontic Society to inform a similar review in restorative dentistry. This is currently underway, and we would hope for trusts to implement within 12 months of publication.	Royal colleges, specialist societies, GIRFT and NHS Digital	Within 12 months of publication

Commissioning integrated dental pathways

Dentistry is commissioned directly by NHS England, rather than by local clinical commissioning groups (CCGs). This was introduced in 2013 with the aim of commissioning the entire dental pathway in a consistent integrated way to achieve better care for patients and reduce inequalities in access to services¹².

This change led to the development of national commissioning guides, now referred to as standards, for each of the main dental specialties¹³, which set out an integrated pathway approach based on three levels of complexity, indicating the level of competency required of the clinician treating the case.

Levels of complexity

Level 1 care includes simpler procedures that all general dental practitioners (GDPs) should be able to provide in primary care.

Level 2 includes more complex cases that require a clinician with additional skills and experience who may or may not be on a specialist list. This care may require additional equipment or resource but can usually be provided in primary care, with onward referral to a specialist if needed as part of the treatment pathway.

Level 3a and **Level 3b** includes the most complex cases. This care is usually provided in dental hospitals or general hospital trusts. Level 3a procedures should be performed by a consultant or a clinician on one of the specialist lists, while Level 3b procedures should only be done by consultants who are on a specialist list held by the GDC and who have additional training to deliver more complex care.

We have found that commissioning practice still varies widely from area to area. How patients are referred to hospitals and for which treatment is determined by local contracts between NHS England as the commissioner, and hospital trusts. The services contracted from hospitals, and the level of provision, may depend on what services and facilities are available outside the hospital in that area – for example, Level 2 oral surgery services provided by GDPs with enhanced skills.

Referral management systems

We have found many areas do not have referral management systems or, if they do, that they are not working effectively. In some cases, the acceptance criteria for referrals is not aligned with the complexity levels set out in the commissioning standards. This can lead to less complex cases being referred to hospitals which would be more appropriately treated by GDPs in primary care or in a Level 2 service. Many cases are being referred from GPs bypassing appropriate triage for dental cases.

We need to reduce these variations and ensure that patients are referred to hospital through a consistent, co-ordinated pathway, whether they present to a dentist or a doctor. These issues are discussed in more detail in the Oral surgery section under *Appropriate referral and triage*, page 48.

There is evidence to suggest that implementing electronic referral management systems, with effective triage of cases, can lead to fewer unnecessary referrals and more cases diverted to primary care¹⁴. However, further research is needed in this area, including the impact of the proposed dental contract reform on the volume and appropriateness of referrals to specialist services. Referral management systems also need to be audited to make sure they are effective and integrated with managed clinical networks (see below).

The need for managed networks of care

Many of the issues around commissioning and referral of dental services could be addressed by managed clinical networks (MCNs) involving clinicians from hospital teams, GDPs, community-based providers, GPs where appropriate, and commissioners, working together in a co-ordinated way.

MCNs are crucial to ensure there are integrated care pathways, with equitable access for patients regardless of geography, and clear referral criteria between primary, secondary and tertiary care. They can also balance needs within the system and ensure that the impact that any changes in secondary care might have on delivery in primary care are carefully considered.

The establishment of MCNs was set out by NHS England in the introductory commissioning standard for dentistry¹⁵. It was described as ‘a way of working where clinicians from all settings across a clinical pathway can focus on patients and services

¹² See <https://www.england.nhs.uk/wp-content/uploads/2013/02/commissioning-dental.pdf>

¹³ See <https://www.england.nhs.uk/primary-care/dentistry/dental-commissioning/dental-specialities/>

¹⁴ Joanna Goldthorpe, Tanya Walsh, Martin Tickle, Stephen Birch, Harry Hill, Caroline Sanders, Paul Coulthard and Iain A Pretty *An evaluation of a referral management and triage system for oral surgery referrals from primary care dentists: a mixed-methods study*

¹⁵ NHS England *Introductory Guide for Commissioning Dental Specialties* <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/intro-guide-comms-dent-spec1.pdf>

rather than being constrained by organisational boundaries'. Page 65 of the standard gives details of what a functioning MCN should include.

Each MCN should sit within a wider Local Dental Network (LDN) which sets overall direction and strategy, and provides multidisciplinary leadership across specialties. The LDN should include NHS England, Health Education England (HEE), Public Health England (PHE), clinical leads across all sectors and patient representatives. It should look at workforce needs across the region and ensure that planning takes account of future population needs.

However, we have found that progress in establishing MCNs for the dental specialties has been slow and they are not yet established in several regions of the country. Funding of MCNs also varies widely from region to region. Throughout this report, we highlight the need for well-established MCNs to bring a joined-up approach across the system, ensure equitable services for patients and improved outcomes.

Securing the right dental workforce

We have found there are distinct workforce challenges across the different specialties, which limit our ability to plan the workforce we need, commission services effectively, redesign services and operate multidisciplinary teams, all of which has an impact on patient care. These include:

- **Oral medicine:** the need for specialists and consultants is likely to increase as more people live with long-term conditions or polypharmacy that have oral manifestations requiring oral medicine care.
- **Oral surgery:** the commissioning of dentists for Level 2 complexity work varies across the country, as does the number of consultant oral surgeons employed in acute trusts.
- **Orthodontics:** a shortage of consultants in many areas of the country resulting in a risk to the quality and viability of the orthodontic service, and thus patient care.
- **Paediatric dentistry:** a shortage of specialists and consultants in many areas of the country available to train clinicians to provide Level 2 services, meet the demand of numbers of children needing a general anaesthetic, safeguarding and dental trauma. Specialists are also required to carry out treatment planning and to lead networks of clinicians in primary care.
- **Restorative dentistry:** a shortage of consultants in some areas of the country for the most complex head and neck cancer rehabilitative work, and the treatment planning and treatment of complex trauma cases, cleft lip and palate, hypodontia, dental anomalies such as amelogenesis imperfecta and transition of children into adult services. There is also a significant shortage of suitably trained specialists to deliver Level 2 commissioned services.
- **Special care dentistry:** There are wide variations in how the service is organised. There are few postgraduate training places and many specialists currently on the specialist list were grandfathered on to the list and are due to retire in the near future.

Workforce planning is essential for the future of dentistry to meet the needs described above. Advance planning should be done on a national basis to remove geographical inequalities. It should also be system-wide, covering not only the scope and functions of specialist dentists but also the role of GPs with enhanced skills, so that more care can be provided outside hospitals where that is appropriate. Training programmes should be matched to the skills required to ensure we have a sustainable workforce.

It should be easier for staff grade and associate specialist dentists with the right skills and experience to progress into specialist positions or consultant posts. We note that the GDC has an Assessed Application Route but we have not considered this further in the context of this report.

Many of these priorities are now being considered as part of the Health Education England (HEE) Advancing Dental Care (ADC) Education and Training Review which aims to develop a dental education and training infrastructure that supplies a dental workforce with the skills to respond to the changing oral health needs of patients and services. The review is now in its second phase¹⁶ and the final findings are due in 2021.

Where there are workforce challenges affecting specific dental specialties, they are discussed in the relevant specialty sections.

An integrated approach to oral health

Tooth decay and periodontal disease are, in the main, both preventable. These problems start long before the patient presents at hospital, usually with poor oral health and lack of prevention.

If we want to improve dental health overall, we need to engage earlier in this cycle and take a more holistic approach, seeing oral health and prevention as integral to general health and wellbeing.

This is particularly important for the most vulnerable groups in society – children, who may lose sleep and miss days of school, and those with special care needs who can't manage their own oral health. Support for robust prevention could avoid visits to hospital and general anaesthetic for these groups.

Preventing child tooth decay

Despite many years of initiatives, levels of child tooth decay remain stubbornly high, causing a range of problems which could be avoided. Poor diet, including sugary foods and fizzy drinks, as well as lack of basic oral hygiene, remain enormous challenges. These issues are discussed in detail in the Paediatric dentistry section of this report (see page 34).

Protecting older adults

The vast majority of older people now retain their natural teeth. As the population grows older, this means people will need more support to maintain the ageing dentition, especially those in care homes and those living with conditions such as dementia.

Older people are also living longer with chronic conditions. The drug regimes they are on can impact on their oral health and the maintenance of their dentition. Likewise, poor oral health can impact on their general health and has been associated with longer length of stay among older people admitted to hospital¹⁷.

To address all of these issues requires an integrated approach across primary and secondary care dentistry, medicine and pharmacy, so that risks are identified and targeted interventions planned to deal with them before they become a serious dental issue. Managed clinical networks (MCNs, see page 29) could help to co-ordinate oral health strategies and joint working arrangements across regions and settings. It is important to ensure that dentistry is part of each Primary Care Network (PCN), and to ensure that barriers to holistic patient care are removed.

“

The focus is on commissioning the entire dental pathway as a single, consistent, integrated model of service delivery.

NHS commissioning guidance for dentistry

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¹⁷ Hashem IW, Gillway D, Doshi M. Dental care pathways for adult inpatients in an acute hospital: a five-year service evaluation. *Br Dent J.* 2020;228(9):687-692. doi:10.1038/s41415-020-1446-5

Commissioning integrated dental pathways recommendations

Recommendation	Actions	Owners	Timescale
<p>5. Dental referrals should be part of an e-referral management system to ensure they are managed in a consistent and co-ordinated way, for example whether from a general dental practitioner, general practitioner or the Community Dental Service.</p>	<p>a Explore options for reducing the inconsistency between referral systems from area to area, and also between dentistry and the e-referral service.</p>	NHSE and NHSI	For progress within one year of publication
	<p>b Develop referral protocols aligned with the dental commissioning standards.</p>	NHSE and NHSI	For progress within one year of publication
	<p>c Based on 5a and 5b, develop a plan to support the implementation of the e-referral system.</p>	NHSE and NHSI	To commence after delivery of 5b
	<p>d Provide training for general dental practitioners and general practitioners to ensure they are aware of the referral criteria and the consequences of not referring patients correctly.</p>	NHSE and NHSI	To commence after delivery of 5b
<p>6. All areas should have funded and effective managed clinical networks (MCNs) in each dental specialty as set out in the dental commissioning standards, including representatives from primary care, public health, general practitioners and the Community Dental Service where relevant. MCNs should liaise with and feed into integrated care systems (ICS).</p>	<p>a Develop a baseline of which areas have MCNs, in which specialties and how they are aligned with the commissioning standards.</p>	GIRFT, NHSE and NHSI	For progress within one year of publication
	<p>b In liaison with NHS England and NHS Improvement, identify the barriers to establishing MCNs (as set out in the commissioning standards) and develop a plan to mitigate these.</p>	GIRFT, NHSE and NHSI	To commence following 6a
	<p>c Audit the MCNs to ensure they are functioning effectively.</p>	GIRFT, NHSE and NHSI	For continual action following 6b
<p>7. Workforce and training for each dental specialty should be reviewed to meet the current and future needs of the changing and ageing population in each location. The clinical academic workforce should be a priority to ensure that undergraduate and postgraduate training programmes can be delivered.</p>	<p>a Following the NHS People Plan, and in conjunction the Advancing Dental Care review, investigate workforce requirements and innovative training solutions for each specialty.</p>	NHSE and NHSI (with links to MCNs), HEE, royal colleges, specialist societies	To commence following report publication
	<p>b Develop an implementation plan based on 7a.</p>	NHSE and NHSI, HEE, royal colleges, specialist societies	Upon completion of 7a
<p>8. Oral health should be recognised as an essential part of general health and wellbeing. There should be a holistic integrated approach, with particular emphasis on hard to reach groups, across secondary care, primary care dentistry, medicine and pharmacy, through integrated care systems (ICS) and primary care networks (PCNs).</p>	<p>a Nationally, NHS England to develop clear policy direction on the inclusion of dentistry and oral health in the system transformation outlined in the NHS Long Term Plan.</p> <p>Regionally, NHS system leaders, commissioners of dentistry and Local Dental Networks should look to identify opportunities for the inclusion of dentistry in their local system design to support prevention, population health, personalised care and integrated services.</p>	NHSE and NHSI, along with local systems	To commence following report publication

Managing intra-trust referrals from medical specialties

Oral surgery, OMFS, paediatric dentistry and restorative specialists working in hospitals are regularly asked by medical colleagues to carry out dental assessments on patients as part of their pre-operative preparation for procedures such as heart and cancer surgery and haematological treatments.

This assessment should normally be done by their GDP, but for a variety of reasons this might not happen – for example, there isn't enough time before the operation, the patient does not have a dentist or their dentist finds it difficult to certify them as dentally fit without having the full information about their condition.

These requests by medical colleagues for dental assessments are, by definition, for complex patients and are much more time consuming than the same assessment on a healthy patient. However, these complex patients cannot be identified.

Variation in requests for pre-surgery assessments

It is impossible to know how many pre-surgery assessment requests are made as they are often not recorded. From discussing this with trusts, we found a wide variation in the number of pre-surgery assessments they are asked to do, ranging from 0 in some trusts to an estimated 20 per week in others. Some trusts reported that these requests are taking up an increasing amount of their time and that often the referral from medical colleagues is ad hoc and difficult to manage.

This can impact patient care and can put added pressure on capacity. We heard examples where cardiac operations had to be postponed because no dental clinician was available to undertake the assessment and certify the patient as dentally fit.

While pre-surgery assessment is an essential service, the current position means we don't know the number of referrals being made, how complex they are, or even who is making the referral. We need to manage this better with stronger guidance on when it's appropriate to make a referral, how the assessments should be carried out and how to record them so the work is attributed correctly.

Intra-trust referral recommendations

Recommendation	Actions	Owners	Timescale
<p>9. Local commissioning should ensure that patients with complex medical conditions referred for dental assessment from departments such as oncology, haematology and cardiology, should be seen in a timely fashion in the most appropriate setting. National guidelines should be developed to enable this.</p>	<p>a Develop national commissioning standards for intra-trust referrals.</p>	NHSE and NHSI, specialist societies, Faculty of Dental Surgery	For progress within two years of report publication
	<p>b Use the commissioning standards to inform the local commissioning of pre-treatment dental examination.</p>	LDN working with their MCNs and commissioners	To commence following delivery of 9a
	<p>c Oversee the implementation of standards.</p>	LDN working with their MCNs and commissioners	Concurrent to 9b
	<p>d Carry out local audits to collect accurate data on referrals.</p>	LDN working with their MCNs and commissioners	As required following delivery of 9b and 9c

Paediatric dentistry

Paediatric dentistry provides specialist oral healthcare for children from birth to adolescence. This includes children and young people up to 16 and, in some cases, 18, who:

- have extensive oral disease or developmental disorders of the teeth and mouth;
- have moderate or severe dental trauma;
- have intellectual, medical, physical, social, psychological or emotional complications or disabilities that affect their oral healthcare;
- are either too anxious or too young to accept routine dental treatment.

The NHS Long Term Plan promises a strong start in life for children and young people¹⁸. Oral and dental health is an integral part of this and, when neglected, can affect children's and young people's ability to sleep, eat, speak, play and socialise with other children, which in turn can impact on their development and school performance. This should be a priority for our health system.

Yet tooth decay, which is almost entirely preventable, continues to be a major problem – and the leading cause of admissions to hospital among children aged 5-9¹⁹. More than 78,000 children in this age group were admitted to hospital for tooth decay in 2015-18, double the number of admissions for tonsillitis²⁰.

Through the GIRFT process, we found that the vast majority of 0-9 year olds having extractions in hospital are as a result of tooth decay. Most are having their extractions under general anaesthetic, and many are waiting for long periods to have their teeth extracted, resulting in pain and risk of infection.

To deal with these issues, we need to look beyond what can be done in hospitals to a whole system approach focused on prevention, involving primary and secondary care, as well as schools, local authorities and other agencies (see *Improving child oral health and preventing decay* – page 42).

Paediatric dentistry in hospitals

As we discussed in *Common issues across the dental specialties* on page 24, there are few paediatric dentistry consultants in non-dental hospitals. Therefore, many paediatric dental referrals to these hospitals are seen by oral surgery/OMFS and the treatment coded to those specialties.

Where there are non-consultant paediatric specialists doing the work, the work would currently be coded to the consultant responsible rather than paediatric dentistry. Only 13 of the 95 non-dental hospitals we visited recorded activity under the paediatric dentistry main specialty code in 2016-17.

This means we cannot see how much paediatric dentistry is being done by looking at the specialty data. To get a picture of the work being done, we looked instead at dental procedures and reviewed them by age bands. Using this measure, it appears that dentistry among 10-18 year olds largely consists of surgical exposure of teeth and surgical extractions, mostly generated by an orthodontic need and requiring appropriate hospital care under general anaesthetic.

High levels of extractions among 0-9 year olds

The situation is more worrying when we look at younger children. In the year March 2018 to March 2019, more than 33,000 children aged between 0-9 had procedures recorded as simple tooth extractions carried out in the 106 dental hospitals and non-dental hospitals we reviewed in the GIRFT process²¹. Of these extractions, 87% were due to tooth decay, as shown in figure 2. In total, there were more than 102,000 hospital admissions due to tooth decay among children under the age of ten between 2015-18²² (78,000 aged 5-9).

¹⁸ NHS Long Term Plan, 3.44 page 55

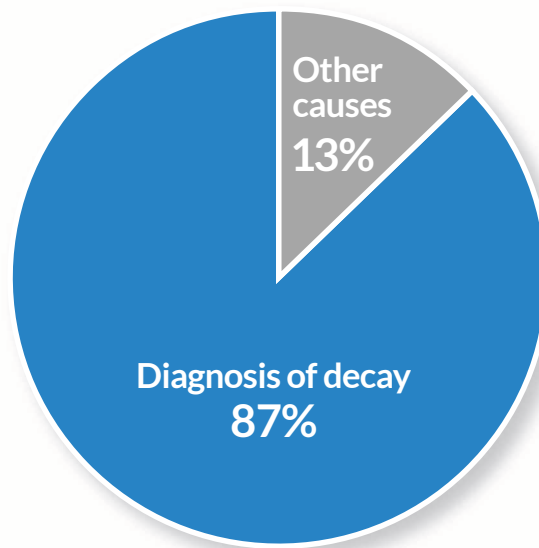
¹⁹ FDS Position Statement on Children's Oral Health 2019 <https://www.rcseng.ac.uk/news-and-events/media-centre/press-releases/childrens-oral-health-2019/>

²⁰ <https://digital.nhs.uk/data-and-information/publications/statistical/hospital-admitted-patient-care-activity>

²¹ See footnote 1

²² NHS Digital, Hospital admitted patient care activity data for 2015-16, 2016-17, 2017-18

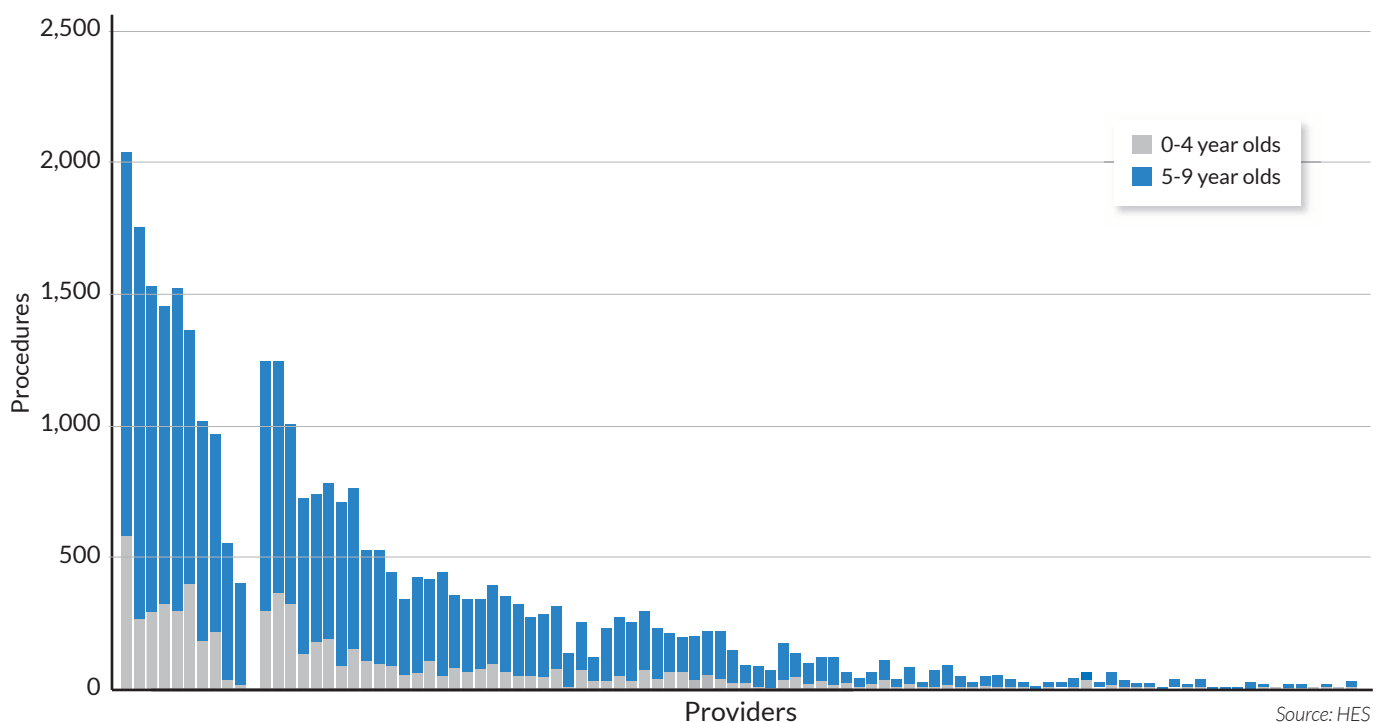
Figure 2: Proportion of simple extractions in children aged 0-9 due to tooth decay in 106 hospitals visited by GIRFT



Source: HES 2018-2019

Figure 3 shows the variation in the number of extractions performed on young children in the year 2018-19. Some dental hospitals (represented by the bars on left of the chart) undertook almost 1,500 a year in the 5-9 age group. While some non-dental hospitals do very few, ten trusts undertook more than 400 with the highest at 700⁴. We have not investigated whether the variation is linked to availability of a local dental service, availability of the CDS, or levels of decay. However, it is likely that some of the high volumes will be due to children having repeat admissions for general anaesthetic – this is discussed further in *Reducing avoidable cancellations and readmissions*, page 39.

Figure 3: Child simple extractions by age group, Apr 18-Mar 19



Source: HES

Although there appears to have been a slight reduction (5%) in the number of extractions performed on children 0-9 over the last two years, it has not been significant enough to bring the problem under control or to relieve pressure on busy hospital departments. One trust told us that they are still seeing the same number of children for extractions as they were 20 years ago.

Procedures under general anaesthetic

As discussed on page 28, the type of anaesthetic is not mandated to be recorded in hospitals and is not generally recorded for dental procedures. Given the personal cost to children and parents, it is worrying that we don't know how many children have a general anaesthetic. There is also a cost to the NHS – hospital extractions among children aged under five, who are all likely to require a general anaesthetic, are estimated to cost £7.8million a year²³.

This issue was discussed in an earlier paper *What do we really know about UK paediatric dental general anaesthesia services?*²⁴ (2012), which called for a universal monitoring system for dental paediatric general anaesthetics to get a clearer view of the service needed; we support this proposal.

To get some idea of current numbers, we followed the same methodology used in the above paper, which took the setting as a proxy, assuming that all children aged 0-9 seen as inpatients or zero-day length of stay had a general anaesthetic. Using this measure, we found there were 29,588 children aged between 0-9 who had a general anaesthetic in 2018-19.

Alternatives to general anaesthetic

Children have extractions carried out in hospital mainly because they need a general anaesthetic for the procedure. They may be very young and therefore unable to co-operate, have multiple teeth requiring extraction, have infections or very broken down teeth. If they are able to co-operate, dental treatment can be done in the dental chair with inhalation sedation as an adjunct to local anaesthesia, either in hospital or by general dental practitioners (GDPs) or the Community Dental Service (CDS) in line with NICE Guideline CG112²⁵, so long as the dental professional is experienced and appropriately trained to treat Level 2 complexity.

This is not happening at the moment in the majority of non-dental hospital trusts. On our deep-dive visits, we heard of few instances of inhalational sedation being commissioned from trusts but large numbers of children having general anaesthetic in hospital. Even where inhalation sedation is commissioned, we know there are differences in the criteria applied – for example, in some regions the CDS will not accept children under seven years of age for inhalation sedation.

Children are often not being taken to the dentist early enough. If a child is seen by a dental professional at an early age it will help them acclimatise and co-operate in the dental chair. However, we know that in many cases children are only going to the dentist once they are in pain or have a dental infection, by which time it would be inappropriate to give a local anaesthetic and they may be too anxious and not acclimatised to sit in the dental chair.

There are encouraging signs of improvement in early access to dental services as a result of the Dental Check by One initiative. These issues are discussed further in *Barriers to good oral health and prevention*, page 42.

Another issue is that some GDPs do not feel they have the skills to treat very young children and may need further training.

²³ <https://www.gov.uk/government/publications/health-matters-child-dental-health/health-matters-child-dental-health>

²⁴ Robertson, S., Chaillai, A. & Dyer, T. *What do we really know about UK paediatric dental general anaesthesia services?* *Br Dent J* 212, 165–167 (2012). <https://doi.org/10.1038/sj.bdj.2012.138>

²⁵ NICE CG112 *Sedation in under 19s: using sedation for diagnostic and therapeutic procedures* <https://www.nice.org.uk/guidance/cg112>

The role of the Community Dental Service

We did not look specifically at the role of the CDS as part of the GIRFT hospital dentistry review. However, as part of the deep-dive visits we did ask about the role of the CDS in the treatment of children. We found wide variation in the role and function of the CDS around the country. In some areas, the CDS is well-embedded and carries out a lot of the Level 2 care identified in the commissioning standard, while in other areas it is virtually non-existent. In some areas, the CDS runs clinics and theatre lists within the trust and in others it is a separate entity. In some areas, specialist training takes place within the CDS. However, even where the CDS is well-established, it often has no permanent specialists in paediatric dentistry.

From our deep-dive discussions, we found the CDS contracts for paediatric dentistry vary from area to area. It's not clear exactly what's included in them or how referrals are managed. We don't know how many referrals to hospitals come from the CDS and for what reason – for example, whether they have tried and failed to treat the child with inhalation sedation before referral for a general anaesthetic.

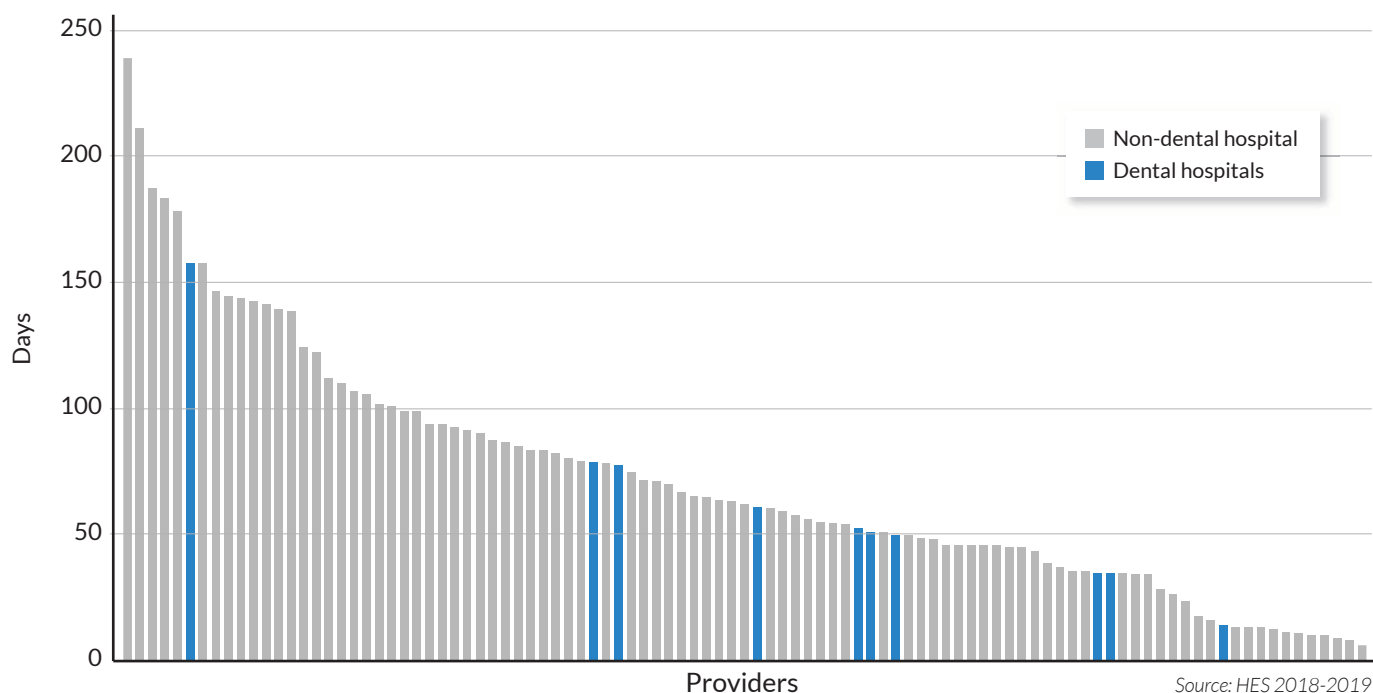
All of this leads to gaps and inequalities in the mix of services and settings available to deliver appropriate care for children and may result in higher referrals to secondary care in these areas. Further work is needed to investigate the variations in CDS provision, contracting and referral systems.

High waiting times in many areas

Figure 4 shows the wide variation in waiting times for children aged 5-9 between the extraction being done and their previous outpatient attendance. The average wait is 52 days (7-8 weeks) but there are more than 20 trusts with a wait of over 100 days (14 weeks). However, in responses to our questionnaire, trusts have reported waiting times for paediatric exodontia of over 40 weeks and in some cases over a year. Added to this is the waiting time from referral to first outpatient attendance, which we could not determine from our data but we have been told is generally around 15-16 weeks.

The waiting time for medically compromised patients can range from a couple of weeks to several months depending on level of need and the medical and anaesthetic challenge.

Figure 4: Median waiting time in days between inpatient extraction and previous outpatient appointment, patients aged five to nine



One reason for these delays is the high volume of children being seen for extractions, discussed above. This, in turn, leads to high demand for general anaesthetic, which puts pressure on units which have limited access to the theatre facilities they need in order to anaesthetise. There is also a lack of clear guidance on the facilities required for paediatric general anaesthetic. In some trusts we visited, anaesthetists will only use a hospital theatre to anaesthetise, while in others, they are able to work in temporary standalone facilities, if needed.

These issues create bottlenecks and long waiting times, and may contribute to some trusts closing their waiting lists for paediatric exodontia, and closing to new referrals, which puts enormous pressure on dental hospitals, since they do not have the option of closing their doors.

This situation is not satisfactory. Not only are the waits for treatment unacceptable, but the dental hospital providing the treatment may be a long way from where the child lives, adding a further burden to families and carers responsible for that child. The closure of non-dental hospital waiting lists appears to be a particular problem in the north, affecting Liverpool, Manchester, Sheffield, Leeds and Newcastle dental hospitals, and they are looking to adopt a network approach to address it.

The long delays also mean that children are often given antibiotics to manage the symptoms of dental infection while they wait for treatment. We found examples of children waiting in pain for primary tooth extraction being prescribed more than one course of antibiotic treatment before being prioritised as urgent for tooth extraction. This is a serious issue given the need for antibiotic stewardship, as outlined in NICE Guideline NG15²⁶ and the fact that tooth decay is a largely preventable disease.

Action is needed to reduce waiting lists for children needing exodontia, including short-term measures, such as validating the lists to remove any patients who no longer need hospital treatment, and longer term solutions, such as reducing referrals and increasing the use of local anaesthetic with sedation.

CASE STUDY

Breaking down barriers between services to reduce general anaesthetics

University Hospitals of North Midlands NHS Trust

Hospital-based specialists support practitioners in the community with remote advice and support, which enables them to provide more care for children outside of hospital and reduce the need for extractions using general anaesthetic.

Remote advice and support

The service grew out of requests from community practitioners for rapid access to another opinion in cases where children present in pain, including children with carious first molars. The UHNM team encouraged the practitioner to take photographs of the teeth and organised a day photography course with information on the records needed to support diagnosis. Practitioners can email their pictures to the hospital with their requests. Sometimes they need reassurance on an existing treatment plan or advice on whether and where to refer the patient.

Results

The service has helped to improve communication and break down barriers. Community practitioners are not afraid to ask even simple questions that might help in managing their patients or how to direct referrals. Many patients have been treated without needing to go to hospital who might have been referred previously.

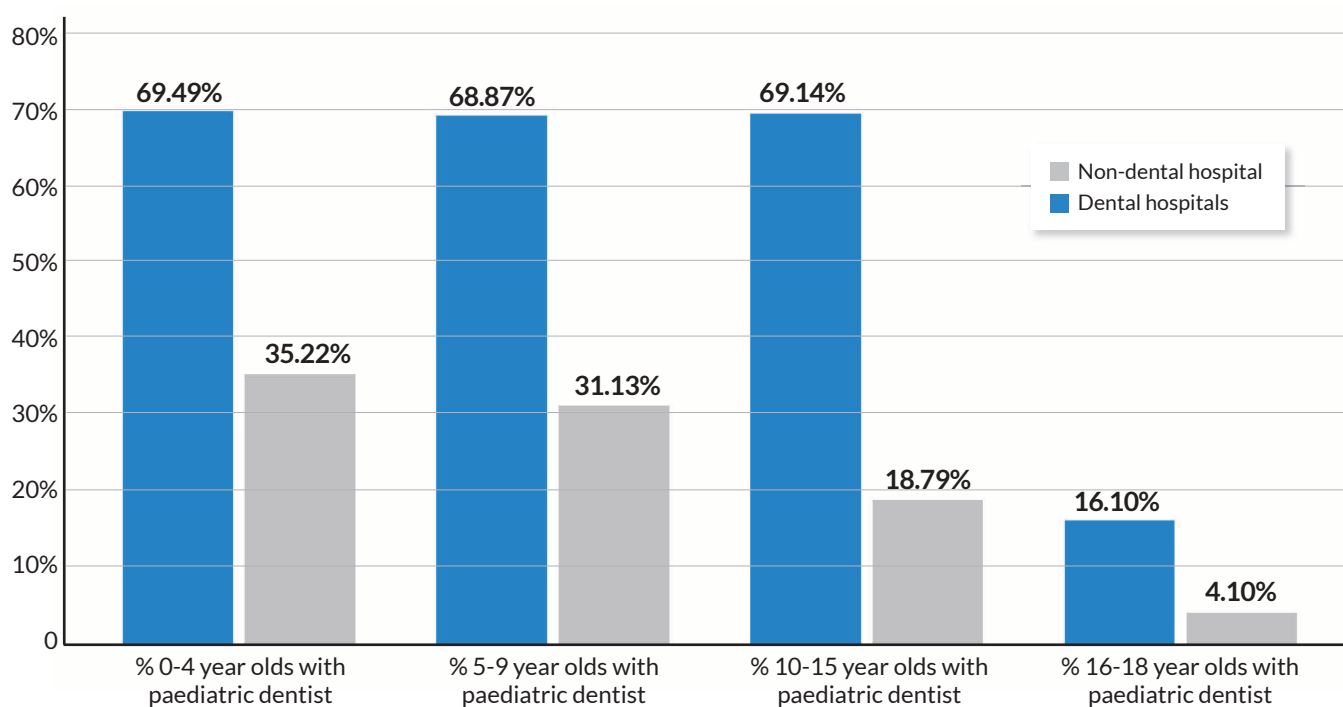
Access to paediatric specialists for treatment planning

Treatment planning is essential for children who need extractions so care can be planned in a co-ordinated way, avoiding the need for multiple general anaesthetic appointments.

However, on our deep-dive visits, we found that in many areas, children with an average age of 7 and below who are being treated in hospitals with general anaesthetic have not been treatment planned by a specialist in paediatric dentistry.

The vast majority of non-dental hospital trusts do not have a paediatric dentistry consultant or specialist who has specific training and experience in paediatric dental treatment planning. Figure 5 shows only around a third of 0-9 year olds having extractions in a non-dental hospital are treated under a paediatric consultant. The data does not tell us how many are treated under a specialist in paediatric dentistry. Many of the children referred will be treated under oral surgery/OMFS, who are not specifically trained to provide this kind of treatment planning.

Figure 5: Percentage of children who had a simple extraction under a paediatric consultant by age group, dental and non-dental hospitals



Source: HES 2018-2019

Reducing avoidable cancellations and readmissions

Effective treatment planning by a specialist in paediatric dentistry should reduce the number of re-admissions for treatment requiring a general anaesthetic – for example, by planning for multiple extractions to take place in one care episode.

A study carried out at Sheffield Children's Hospital suggests that having a paediatric specialist available for treatment planning helped to reduce the rate of repeat general anaesthetic within two years to less than 0.7%, significantly lower than repeat rates in other centres in England²⁷.

Another approach is for dental departments to work with other medical and surgical specialties to 'piggy back' dental procedures on to other planned procedures under one general anaesthetic. This could be considered in hospitals where there are specialists in paediatric dentistry, including dental hospitals and children's hospitals, based on the overall wellbeing of the child – and provided that linking with other procedures does not unduly delay the dental treatment. We have found examples of where it works well – see case study on page 40.

²⁷ J. Kirby, E. Walshaw, A. Morgan, Prof C. Deery Repeat dental general anaesthesia at Sheffield Children's NHS Foundation Trust

CASE STUDY

Piggybacking procedures to avoid multiple general anaesthetics

Alder Hey Children's NHS Foundation Trust

Children's exposure to general anaesthetic is being reduced at Alder Hey by combining dental treatment with medical and surgical procedures. An electronic system makes it easier to refer and manage these piggyback procedures, without the risk of delays to treatment.

Minimising the number of general anaesthetics not only reduces the risk of anaesthetic-related morbidity and mortality but also reduces the emotional, psychosocial, and educational costs that are associated with repeated or prolonged hospitalisation.

Electronic system makes the service more accessible

Alder Hey had piggybacked dental procedures with non-dental lists for several years but had no formal protocol. In 2018, the trust introduced its electronic service, which standardises the pathway for these patients, as they are all referred through a single centralised system. This also means that all members of the hospital's dental team are made aware of future piggybacks.

Results

The piggyback service contributes to better, more holistic care for a complex patient group with medical and surgical comorbidities, many of whom would not be suitable for day case general anaesthetic. The electronic system has made the service more widely known and accessible throughout the hospital, extending the opportunities for piggybacking.

Preparing children better for procedures could also help reduce postponements and cancellations and enable units to work more efficiently. We found some had their surgery postponed because they had eaten just before they were due to undergo a general anaesthetic, or they had a respiratory infection. Some trusts have improved preparation by contacting the parents by phone the day before to check the child's status for a general anaesthetic – see case study below.

CASE STUDY

Communicating with parents to reduce cancellations and DNAs

Epsom and St Helier NHS Trust

Child attendance for day case oral surgery with general anaesthetic has improved significantly since the dental team began contacting parents the day before their child's appointment.

The trust offers more than 500 day case dental procedures a year with general anaesthetic. To make sure this runs smoothly and maximise efficiency, the team proactively manages appointment booking and operating lists.

Making contact the day before operation

First the point of delivery team fills each 240-minute operating session with appropriate cases in time slots from 10 to 90 minutes, based on the estimated time for each procedure. They contact parents by phone and confirm by post. Details of all patients are captured on the PiMS booking software.

One working day before the operating session, the ward team contacts parents by phone and confirms that the child is fit and well for surgery and that they understand the fasting instructions. If the child is not fit for surgery, the delivery team rebooks them for a future date and fills their place with another child from the waiting list.

Results

During 2019, only 22 (4%) of a total of 509 potential day case patients were cancelled on the day due to not being fasted or fit for surgery. The point of delivery team has a stronger relationship with day case nurses, which helps in finding other patients at short notice when cancellations occur.

Conservative management of early tooth decay

In many cases, the need for an extraction in small children can be avoided by preserving decayed, weak or damaged baby teeth by methods such as a stainless steel crown which can stay in place until the child gets their second teeth. Although this technique is taught to undergraduates in dental school, and through Health Education England (HEE) courses for GDPs, we found very little evidence that it is being used as an alternative to extraction in non-dental hospitals, and we know the uptake of this treatment modality is low in general dental practice.

The National Institute for Health Research's FiCTION trial²⁸ is currently exploring this, along with other ways of managing decay in children's primary (baby) teeth, comparing the clinical and cost-effectiveness of each to find out which works best.

Managing child dental trauma

Dental trauma caused by injuries and accidents needs good early management if sequelae are to be minimised. GDPs should be in a position to manage straightforward child dental trauma but we found that the care pathways in many areas were unclear. Many clinicians we spoke to felt that child dental trauma is not managed well by GDPs and that they should have further training in how to deal with it.

Because child dental trauma is an outpatient diagnosis, with no specific procedure code linked to it, we don't know the volume of cases being referred to hospitals or the pathway prior to referral. We think this warrants further investigation.

The need for paediatric dentistry networks

The lack of paediatric dentistry consultants in non-dental hospitals and patchy Level 2 services makes it essential that there are consultant-led managed clinical networks (MCNs) for paediatric dentistry that can guide non-specialist practitioners and ensure quality of care. The commissioning standard²⁹ states that non-specialists must be aligned to a specialist-led paediatric dental MCN and follow its protocols and undertake training and audit under its direction.

However, from responses to our questionnaire, it is clear that they have yet to be set up in many areas. Even in some places where there is a large provision of paediatric dental care in a dental hospital setting, we found that the MCN is not well developed or functioning properly. This means that the co-ordination of care that is so badly needed for children is missing.

As well as providing guidance and co-ordination, MCNs should work with Health Education England (HEE) to develop new training posts and consider bolt-on training for suitably experienced GDPs so they can meet Level 1 and 2 care needs and provide basic treatment planning as part of a consultant-led network to prevent repeat admissions. MCNs may need to cover a broad geographic area to ensure that specialist leadership is available across the country.

The importance of paediatric dentistry MCNs has been recognised by the Royal College of Surgeons, which has organised study days focused on providing insight and considering the future training needs within an LDN and MCN framework³⁰.

Making paediatric dentistry a priority within hospitals

On our deep dives, we visited trusts that do not employ a paediatric dentistry specialist or consultant and are not aware of the true number of paediatric dentistry cases they are seeing or how many of those children are having general anaesthetic. Those that do not have a consultant in paediatric dentistry may not regard themselves as having a paediatric dental service, even though the number of children aged 0-9 being seen annually may be in the hundreds. Across the system, not enough priority is given to the dental care of young children and this needs to change.

Having MCNs for paediatric dentistry across the country, as discussed above, would help, as would having better and more accurate data on the type of anaesthesia used and who is undertaking the work (see *Common issues across the dental specialties*, page 24). This would not only give us a clearer picture of the paediatric dental specialty but would also provide the evidence base to give greater priority to child oral health as a critical factor in child development and wellbeing as envisioned in the NHS Long Term Plan.

We believe that paediatric dentistry should be included in the wider paediatric wellbeing discussions within a trust and as part of integrated care systems (ICS) to help improve outcomes and ensure we have the infrastructure we need (see *What's needed longer term: an integrated partnership approach*, page 45). To support this, we recommend that the planned new Paediatric Surgery Operational Delivery Networks (ODNs) proposed in the NHS England and NHS Improvement paediatric critical care and surgery review³¹ include paediatric dentistry and that the paediatric MCNs link in with them.

²⁸ <https://research.ncl.ac.uk/fictiontrial/>

²⁹ *Commissioning standard for Paediatric Dentistry*

³⁰ <https://www.rcseng.ac.uk/education-and-exams/courses/search/the-role-of-ldns-and-mcns-in-the-development-of-specialist-paediatric-and-special-care-dentistry/>

³¹ *Paediatric critical care and surgery in children review Summary report* <https://www.england.nhs.uk/wp-content/uploads/2019/11/paediatric-critical-care-and-surgery-in-children-review-summary-report-nov-2019.pdf>

The ODNs are intended to improve:

- sustainability of services and equity of access across the country
- delivery of more joined-up services for children with different levels of need.

Improving child oral health and preventing decay

When neglected, poor oral health can affect children’s ability to sleep, eat, speak, play and socialise with other children, which in turn can impact on their development and school performance. Other associated impacts include pain, infection, poor diet and impaired nutrition. To improve outcomes and help give children a good start in life we need to look at the root causes and involve providers across primary and secondary care in a holistic and equitable approach to oral health and prevention of decay.

Barriers to good oral health and prevention

We have found that not enough children are visiting dentists early enough to receive the preventive advice that can help reduce tooth decay. Many parents do not access the dentist until their child is in pain when it is often too late for conservative treatment by the GDP. According to a position statement on child oral health from the Faculty of Dental Surgery, more than three-quarters (77%) of 1-2 year olds did not visit a dentist in 2018³². This may be due to a variety of factors including:

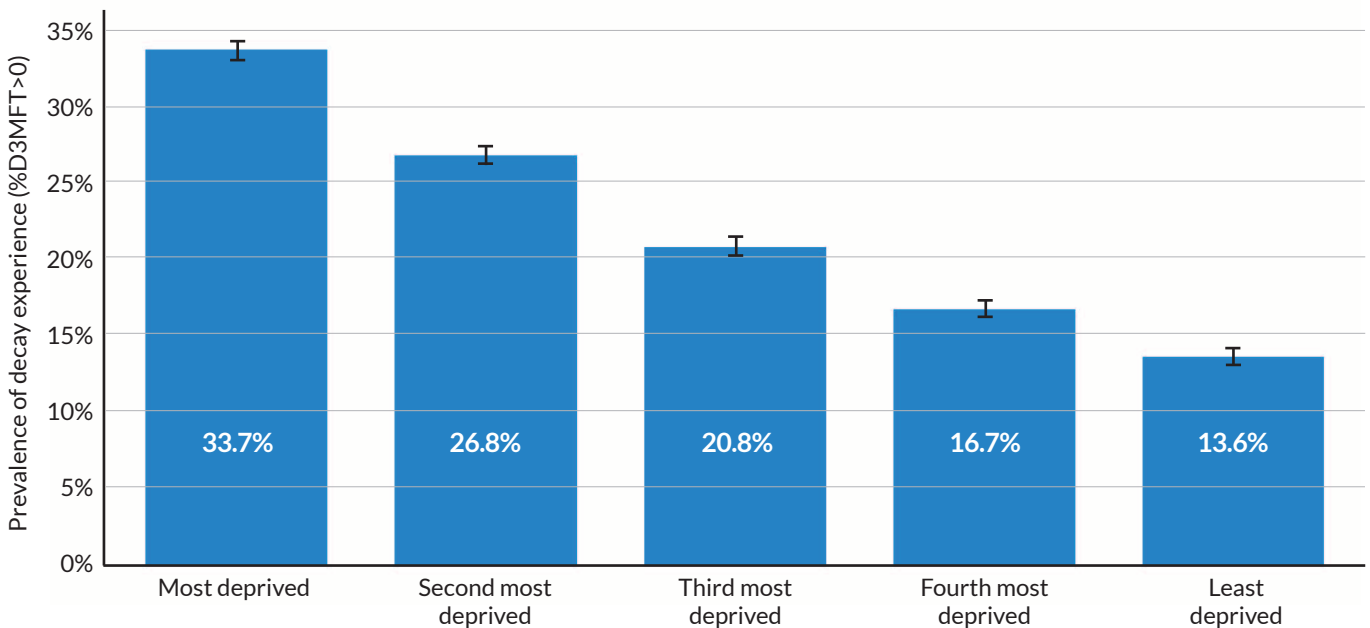
- fear of the dentist
- parents may not be aware that dentistry is free for children
- a culture that you don’t go for regular check-ups and only seek treatment when you have a problem
- a belief that baby teeth don’t matter.

There is a perception among some dentists that there is no payment available for preventative advice or treatment. However, payment is available for preventative advice given to children under three and the Chief Dental Officer has written to all GDPs to clarify this³³. The Dental Check by One and Starting Well Initiatives are both intended to encourage early visits (see page 43).

Regional inequalities

There are significant inequalities at national, regional and local level, with children from the most deprived areas having approximately 2.5 times the level of decay than those from the least deprived³⁴. As shown in figure 6, in the most deprived decile in England, over a third of children have dental decay (34.3%), compared to just 13.7% in the least deprived quintile.

Figure 6: Percentage of five-year old children with decay in England by national index of multiple deprivation quintile



Source: Public Health England oral health survey of five-year-old children 2017 & index of multiple deprivation 2015

³² FDS Position Statement on Children’s Oral Health 2019 See <https://www.rcseng.ac.uk/news-and-events/media-centre/press-releases/childrens-oral-health-2019/>

³³ <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/letter-chief-dental-officer-visitsfor-children-under-3.pdf>

³⁴ See footnote 3

Current challenges

Since budgets for oral health improvement and oral disease prevention in young people were devolved to local authorities, we have seen regional variations in commissioning oral health programmes. There are good examples, such as Leicester City Council's Happy Teeth, Happy Smiles supervised tooth brushing programme, which has reduced the prevalence of child tooth decay.

However, in many areas, initiatives such as school checks and supervised tooth brushing, which are recommended in Public Health England's commissioning guidance for local authorities³⁵ have been stopped. In other localities, oral health has been incorporated into general wellbeing programmes.

Economic conditions may also lead to parents choosing cheap sugary foods over healthier options. High-sugar fizzy drinks, in particular, are leading to widespread erosion of back teeth, which is a growing concern reflected in PHE's All our Health Programme³⁶. A soft drinks levy has also applied to soft drinks with added sugar since April 2018³⁷.

The need for targeted interventions

We have found a lack of direct targeted interventions which are needed to improve the oral health of all children, particularly those who are not taken to the dentist. We're pleased to see that these issues are addressed in the Government's 2020 consultation document on preventative healthcare³⁸, which includes:

- a proposed roll out of a school tooth-brushing scheme in more pre-school settings and primary schools in England
- a proposal to remove the funding barriers to fluoridating water to encourage more local areas that are interested to come forward with proposals
- a prospect that the Soft Drinks Industry Levy would be extended to sugary milk drinks, if enough progress is not made on reducing the sugar content of these drinks.

Oral health as part of child safeguarding

Oral health should be regarded as part of the safeguarding of young children, some of whom may be vulnerable or at risk of neglect. The Care Quality Commission states that safeguarding children and young people should be integrated into existing dental practice systems and processes for delivering care³⁹. Statutory guidance from the Department for Education defines safeguarding as:

- protecting children from maltreatment
- preventing impairment of children's health or development
- ensuring that children grow up in circumstances consistent with the provision of safe and effective care
- taking action to enable all children to have the best outcomes.

To support safeguarding the British Dental Association has developed guidance on safeguarding children who miss appointments⁴⁰.

The impact of oral health initiatives

Despite current limitations, there are some notable oral health programmes which are making a difference.

Dental Check by One: The British Society of Paediatric Dentistry (BSPD) launched the Check by One⁴¹ campaign in 2017 in partnership with the Office of the Chief Dental Officer. The aim of the campaign is to ensure all children see a dentist as their baby teeth come through, or by their first birthday at the latest. It has now been adopted by commissioners in some areas as part of their contractual agreements with GDPs. By December 2018, the programme announced an increase of 2.5% in children aged 0-2 accessing a dentist⁴² compared to December 2016.

³⁵ Public Health England Local authorities improving oral health: commissioning better oral health for children and young people An evidence-informed toolkit for local authorities https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/321503/CBOHMaindocumentJUNE2014.pdf

³⁶ Public Health England (2019) Child Oral Health: Applying All our Health, available via: <https://www.gov.uk/government/publications/child-oral-health-applying-all-our-health/child-oral-health-applying-all-our-health>

³⁷ HM Revenue and Customs (2016) Soft Drinks Industry Levy, available via: <https://www.gov.uk/government/publications/soft-drinks-industry-levy/soft-drinks-industry-levy#background-to-the-measure>

³⁸ Department of Health and Social Care Advancing our health: prevention in the 2020s - consultation document <https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document>

³⁹ See <https://www.cqc.org.uk/guidance-providers/dentists/dental-mythbuster-29-safeguarding-children-young-people-risk>

⁴⁰ BDA Implementing 'was not brought' in your practice <https://bda.org/advice/Documents/Was%20Not%20Brought%20Implementation%20guide%20AW.pdf>

⁴¹ <https://dentalcheckbyone.co.uk/>

⁴² <https://dentalcheckbyone.co.uk/the-impact-of-dental-check-by-one/>

Starting Well initiative from Smile4Life⁴³: This programme targets parents of children aged under one and those under two who are not currently visiting the dentist in 13 local authorities, which were chosen based on their level of deprivation and high rates of general anaesthetic for paediatric exodontia. Parents are provided with evidence-based preventive advice about reducing sugar intake and increasing the exposure to fluoride on teeth. Since Starting Well began, 12 of the local authorities have now progressed into the top 50% for dental attendance aged 0-2, while seven are in the top 25% and none are in the lowest 25%.

What trusts can do now

Drawing on the lessons from the initiatives described above, there are steps that trusts can take now to improve oral health and prevent decay in co-operation with local partners to help reduce inequalities. These include:

- Providing simple preventative advice to families of children, based on the guidance in Public Health England's toolkit on better oral health and prevention⁴⁴.
- Championing the implementation of the British Dental Association's 'Was Not Brought' safeguarding guidelines⁴⁵ for children who miss dental appointments and may be at risk of neglect.
- Ensuring that the dental part of the Personal Child Health Record (the red book) is completed by midwives and health visitors.
- Making sure that waits of over 18 weeks are on their risk register and considered as part of a child wellness programme alongside other paediatric waits.
- Making sure that child dental lists are not cancelled, including those run by the CDS.
- Establishing or supporting a child oral health programme. Some trusts have already done this, demonstrating what can be achieved within limited resources (see case study below).
- Championing initiatives such as Smile4Life including the Starting Well initiative and Dental Check by One⁴⁶.

CASE STUDY

Using social media to increase children's engagement with oral health

University Hospitals of North Midlands NHS Trust

The Keep Stoke Smiling campaign led by the UHNM's orthodontic team has increased engagement with young patients and local schoolchildren regarding oral health.

Stoke has four times more child tooth decay than the average for England. Audits showed that patients and parents were not aware of the risks to dental health from sugary and fizzy drinks. Traditional information leaflets were not cutting through, so the team decided to reach them through social media instead.

Instagram, Facebook and billboards

They launched Keep Stoke Smiling and opened accounts on Facebook, Instagram and Twitter, posting regular oral health messages and videos. Staff quickly became interested and contributed ideas, while local GPs, pharmacies and schools also backed the campaign. Students at a local sixth form college designed posters, which the council and billboard companies displayed at low or no cost.

Results

Keep Stoke Smiling posts have received more than 1.2 million views. It made patients feel more involved in their care and generated interest from local children, parents and educators. Several local schools have pledged to go 'fizz-free' as a result of the campaign, which has attracted national and local press attention and won endorsement from local celebrities.

⁴³ <https://www.england.nhs.uk/primary-care/dentistry/smile4life/starting-well-13/>

⁴⁴ PHE Delivering better oral health: an evidence-based toolkit for prevention
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/605266/Delivering_better_oral_health.pdf

⁴⁵ <https://bda.org/advice/Documents/Was%20Not%20Brought%20Implementation%20guide%20AW.pdf>

⁴⁶ <https://www.bspd.co.uk/patients/dental-check-by-one>

CASE STUDY

Oral health improvement for children having orthodontic treatment

The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust

Children are more aware of how to maintain good oral health and are better prepared for orthodontic treatment thanks to a nurse-led oral health clinic.

Oral hygiene advice and support

The clinic is held after 3pm so children can get there from school. Orthodontists can refer patients to improve their oral health before starting orthodontic treatment, or to help maintain good oral hygiene during treatment. Nurses offer encouragement and advice on how to reduce sugar intake, the best way to brush your teeth, and safe use of plaque disclosing tablets. The trust asked dental companies for support and made sample bags from donations of oral hygiene equipment.

Results

There has been a marked improvement in the oral hygiene of children having orthodontic treatment, which increases the effectiveness of treatment, with long term benefits for oral health. Looking forward, the clinic will offer patients a food diary to complete for a week to monitor sugar intake before their appointment.

What's needed longer term: an integrated partnership approach

It is clear that hospital trusts cannot improve child oral health working alone. As outlined in the recent NHS guide *Breaking down barriers to better health and care*⁴⁷, the government, local authorities, schools, primary and secondary care all need to play their part, along with others such as charities and community groups, in sustainable and equitable oral health awareness and prevention across the country. Public Health England's Children's Oral Health Improvement Programme Board (COHIPB) will be key to defining the strategies which will help improve the health of all children, and reduce the oral health gap for disadvantaged children. The Board's objectives are to ensure:

- child oral health is on everyone's agenda;
- the early years and dental workforce have access to evidence based oral health improvement training;
- oral health data and information is used to the best effect by all key stakeholders;
- child oral health improvement information is communicated effectively.

Paediatric dentistry recommendations

Recommendation	Actions	Owners	Timescale
10. As part of measures to avoid repeat admissions for general anaesthetic, all referrals for children requiring GA for dental extractions should be accompanied by a robust and appropriate treatment plan. Dentists providing this, who are not specialists, must be aligned to a specialist-led paediatric dental MCN.	a Develop an action plan to support the development of shared paediatric treatment plans between general dental practitioners and specialist-led paediatric dental MCNs.	NHSE and NHSI and MCNs	For substantial progress within one year of publication
	b Consider ways of reducing the number of general anaesthetics, for example by piggy-backing dental extractions onto other procedures such as ENT, where this is appropriate and will not lead to delays in treatment.	Trusts, MCNs	For substantial progress within six months of publication
	c Establish a national audit and service evaluation of paediatric dental anaesthesia services, looking at access to services, quality, provision and need.	NHSE and NHSI	For substantial progress within two years of publication

⁴⁷ See <https://www.england.nhs.uk/publication/breaking-down-barriers-to-better-health-and-care/>

Recommendation	Actions	Owners	Timescale
<p>11. Waiting lists for children requiring exodontia must be reduced. There should be a clear aspiration that children at risk of oral infection should wait no more than 14 days from referral to treatment, and should not be prescribed multiple courses of antibiotics as a result of the wait.</p>	<p>a Establish a working group to include providers and input from the Department for Health, Public Health England, commissioners and the wider paediatric community to come up with strategies and solutions for:</p> <ul style="list-style-type: none"> • access to general anaesthetic facilities for children who need exodontia to reduce current waiting lists. • reducing waiting times for children over the longer term. 	GIRFT, NHSE and NHSI	For immediate consideration on publication
	<p>b The group should collect and review data to include:</p> <ul style="list-style-type: none"> • numbers of children waiting in three categories: <ol style="list-style-type: none"> 1. routine exodontia for fit and well children 2. medically compromised children 3. children who have been treatment planned for comprehensive care (restorations and extractions) under general anaesthetic • what percentage are in pain • what percentage have been prescribed antibiotics, number of courses, and by whom. 	GIRFT, NHSE and NHSI	To commence after formation of the working group, with data to be reviewed within 6-12 months
<p>12. Strategies from the Children's Oral Health Improvement Programme Board (COHIPB) should be implemented at provider and commissioner level. Children's oral health should be treated as a high priority as part of the overall paediatric wellbeing agenda and be included in the work of the newly-created Paediatric Surgery Operational Delivery Networks (ODNs).</p>	<p>a Liaise with COHIPB Board to support the development of strategies to reduce inequalities in children's oral health.</p>	NHS England, MCNs and trusts	To commence immediately following publication, and on an ongoing basis
	<p>b The designated children's lead in each trust to include paediatric dentistry as part of their brief, including reporting on the number of extractions performed on children under general anaesthetic, linking with the ODNs. This supports the recommendation in the GIRFT report on paediatric surgery to ensure the children's voice is heard.</p>	NHSE and NHSI, trusts	Within six months of publication
	<p>c Develop and implement plans which will support dental care and oral health of children which includes:</p> <ul style="list-style-type: none"> • providing simple preventative advice to families of children; • championing the British Dental Association's 'Was Not Brought' safeguarding guidelines; • ensuring that the dental part of the Personal Child Health Record is completed by midwives and health visitors and that they have good knowledge of child and baby oral health improvement; • making sure that waits of over 18 weeks are on the trust risk register; • making sure that child dental lists are not cancelled, including those run by the CDS; • establishing or supporting a child oral health programme; • championing initiatives such as Smile4Life and Dental Check by One. 	Trusts	For progress within six months of publication

Oral surgery

Oral surgery deals with the diagnosis and management of the pathology of the mouth and jaws that requires surgical intervention. Oral surgery procedures range from simple extractions to complex cases involving bone or tissue removal, and those with a high risk of complications such as nerve damage or alveolar fracture.

Oral surgery care is provided by two specialties: oral surgery, a dental specialty regulated by the General Dental Council, and oral and maxillofacial surgery (OMFS), regulated by the General Medical Council. OMFS also includes emergency care for trauma to the face or neck, and treatment for head and neck cancers. OMFS surgeons must hold both dental and medical qualifications. Both specialties are commissioned nationally by NHS England.

Understanding who is doing the work

In many trusts, it is not clear whether procedures are being performed by oral surgeons or oral and maxillofacial surgeons, nor which level of clinician is doing the work – consultants, staff and associate specialist (SAS) grades, or more junior non-specialist grades and trainees.

Often the attribution of main specialty and the use of treatment function codes are inconsistent and in many trusts the management couldn't tell us what activity is coded to which specialty. In a number of trusts there is attribution to both OMFS and oral surgery but for what is often unclear.

The lack of clarity means we can't measure workloads or tell how many procedures are being done by oral surgeons, nor can we identify variation in the clinical outcomes of comparable staff to inform workforce planning.

Attribution to the consultant responsible

Most oral surgery work is carried out within OMFS departments, which tend to employ OMFS consultants as they are dual-qualified in medicine and dentistry, and can therefore be part of an on-call rota, rather than oral surgery consultants who are not qualified in medicine. We have found that only around 5% of non-dental hospital trusts employ consultant oral surgeons.

Under the data dictionary rules, work should be recorded under the lead consultant, which, in the absence of a consultant oral surgeon, will be OMFS. This means that many procedures carried out by oral surgeons are not attributed to the oral surgery main specialty.

The GIRFT national report for OMFS recommended that all work done under an OMFS consultant is attributed to the OMFS main specialty according to the data dictionary rules. Although this would follow the data dictionary rules on main specialty, it does not allow the hospital dentistry workstream to interrogate the data to find out essential information, such as:

- the amount of oral surgery work being done
- how much is being done by oral surgeons under their scope of practice based on levels of complexity
- how much is being done by OMFS consultants that could potentially be done by others.

NHS dental commissioners (NHSE) and managed clinical networks (MCNs) should be able to interrogate the dental case volume in this way to understand what services are being delivered and by whom, and determine value for money based on those volumes to inform good decision making.

Identifying oral surgery work as dentistry

We know from our deep dives, responses to our questionnaire, and the findings identified in the GIRFT OMFS report, that a large proportion of OMFS work undertaken in hospitals is oral surgery. This work should be identified as dentistry to help separate and define oral surgery and OMFS procedures, and the resources needed for each, to inform good commissioning decisions. This would help with:

- Workforce planning: by identifying current workloads of different professional groups.
- Workforce productivity: by identifying variation in productivity between comparable staff.
- Quality improvement: by identifying variation in the clinical outcomes of comparable staff, and providing outcomes analysis to staff groups specifically related to their practice.

Greater clarity could also support service redesign by enabling the system to better understand the productivity and clinical outcome benefits different service models could provide. This could help in the development of a hub and spoke service model outlined in the GIRFT report on OMFS.

Appropriate referral and triage

The commissioning standard for oral surgery describes levels of complexity to help inform appropriate referral⁴⁸:

Level 1: general dental practitioners (GDPs) are expected to undertake routine oral surgery, such as extraction of teeth and buried roots.

Level 2: more complex cases requiring some additional skills, such as surgical removal of buried roots and minor soft tissue surgery, can be provided by appropriately-trained GDPs, the Community Dental Service (CDS), or a Level 2 service.

Level 3: hospital-based specialists should treat cases such as complex dental injuries and infections, patients with relevant comorbidities that impact dental care, procedures that require general anaesthetic, complex special care needs cases, and patients on medications that impact on treatment, such as bisphosphonates.

However, we found that in many areas, referrals are not being managed appropriately according to the care pathways. Of the 101 trusts that participated in our questionnaire, more than a third (36) said they do not have a referral management system in place or did not respond.

In some cases, where a system is in place, we found it is not being used effectively. Many clinicians mentioned that they have little faith in their referral management system. This often appeared to be due to a lack of communication between commissioners and trusts, highlighting the need for local networks to facilitate closer working relationships (see *The need for managed clinical networks*, page 51).

Lack of data on case-mix and modifying factors

We wanted to look at reasons why patients are being seen in hospital and whether any of them could be treated more appropriately and cost-effectively in another setting. However, we found large gaps in the data available for analysis.

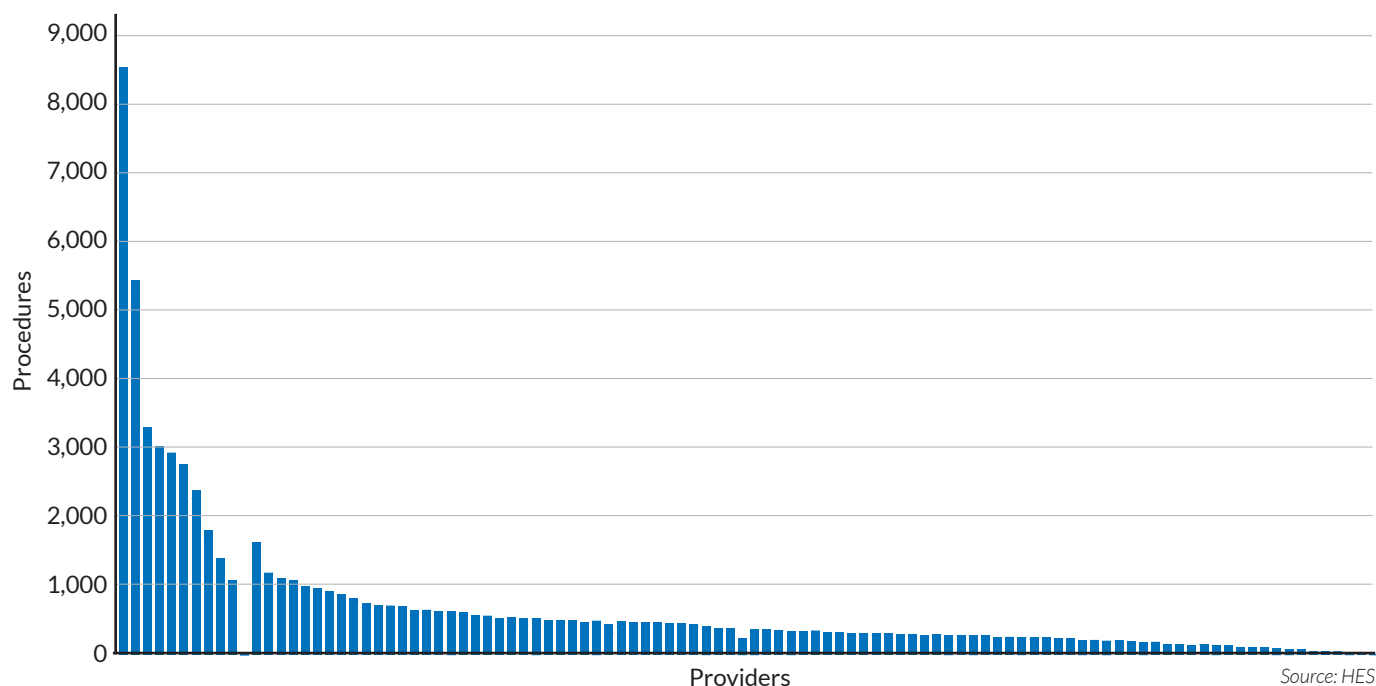
As discussed in *Common issues across the dental specialties*, page 24, recording the type of anaesthesia used would be helpful, and secondary diagnoses (comorbidities) for outpatient attendances would give some indication of the level of complexity involved in treating a patient, but these details are not captured.

Some hospitals are seeing high numbers of less complex oral surgery cases. This may be justified by modifiers such as the medical history, psychosocial issues or anxiety. For example, an apparently simple Level 1 procedure which appears to be suitable for treatment in primary care will become Level 3 complexity requiring hospital care if the patient has significant comorbidities. However, as described above, we can't tell whether these modifiers exist because they are not recorded.

Volumes of simple extractions performed in hospitals

Looking at the information we do have, figure 7 shows the total number of simple extractions performed in hospitals. Among the non-dental hospitals (shown on the right), some trusts received as few as 120 referrals for simple tooth extractions, while others had 1,200 – ten times as many. These high numbers suggest that, even allowing for modifiers, hospitals in some areas may be seeing many less complex procedures which could be managed by GDPs or a Level 2 service.

Figure 7: Adult simple extractions for all providers, April 2018 - March 2019



Extractions performed with or without other procedures

We found that more than a third of simple extractions (38%) performed in hospitals are done as part of a larger procedure or to take advantage of the general anaesthetic given for a larger procedure⁴⁹. This seems to indicate that clinicians are working in an efficient, co-ordinated way between teams to combine procedures so that the patient only has to undergo a single general anaesthetic.

For example, where a tooth needs to be surgically exposed under a general anaesthetic, a simple extraction might be done at the same time, or a simple extraction performed at the same time as an orthognathic procedure.

However, we know that 61% of all simple extractions done in hospitals were performed on their own and not accompanying a larger procedure⁵⁰. In some locations, this proportion is higher, reaching 87% at the upper end of the range in non-dental hospitals⁵¹. Again, even allowing for possible comorbidities and other modifiers among these patients, this suggests that at least some of those are less complex procedures that could have been undertaken in primary care relieving pressure on hospital waiting lists.

Why patients are being referred

Where the number of referrals is high, the reasons may be complex and have to do with longer term shifts in the way dentistry is organised, as well as demographic and societal changes over time. Table 2 gives a snapshot of the changes that may underlie the increase in the number of cases being seen in hospitals.

⁴⁹ See footnote 1

⁵⁰ See footnote 1

⁵¹ See footnote 1

Table 2: changes in service organisation, practice and attitudes to dentistry since 1990

1990	2020 (pre-COVID)
GDPs are paid a fee per item of service.	Under the dental contract of 2006, payment is based on the number of completed treatments. This had the effect of reducing the value of some procedures in primary care and led to a rise in referrals to secondary care ⁵² . The Department for Health and Social Care is now working on a programme of contract reform ⁵³ to address this issue and support patients on a care pathway to prevent disease and improve oral health, which will prioritise access to dental services in a primary care setting.
NHS dentists available in most areas of England.	Fewer NHS dentists in some areas may mean that people go to their doctor or A&E and get referred to hospital dentistry from there.
Dentistry not perceived as expensive by the public.	Dentistry perceived as expensive in primary care. This may be another reason why people go to their general practitioner (GP) or A&E. GDPs may also refer patients who are concerned about costs to hospital, where treatment is (usually) free.
GDPs have little fear of litigation and are not very risk averse.	There is greater fear of litigation, particularly among young dentists, reinforced by messages from insurers.
The dentistry workforce is not highly-specialised. GDPs generally offer a full range of treatments.	An increase in specialisation has led GDPs to think it is in the patient's best interest to be referred to someone with more experience or training. Young GDPs may not have the confidence or experience to treat patients, especially those with significant comorbidities or polypharmacy.
More of the population had more of their teeth extracted.	The population is ageing and retaining their teeth. More patients are being treated with complex medical conditions, including cancer, and on complex drug regimes, which have implications for oral surgery procedures thus leading to more referrals.

The potential for electronic referral backed by consultant-led triage

One study funded by the National Institute for Health Research looked at the potential of electronic referral systems integrated with GDP surgeries to save cost on secondary care and improve patient outcomes. When the system was implemented, with triage performed remotely by hospital consultants and active deflection of referrals to a Level 2 service, it resulted in significant cost savings. Patients surveyed were happy to receive their care outside of hospital.

Commissioning of Level 2 services

Level 2 services, which offer oral surgery, such as removal of wisdom teeth and removal of retained roots, performed by GDPs with additional skills, or specialists working in primary care can help to manage referrals outside of hospitals. Patients who suffer from a dental anxiety or phobia that makes them difficult to treat in general practice may also be seen at Level 2 where there is a contract to deliver local anaesthetic with conscious sedation or intravenous sedation.

⁵² *Guide for commissioning oral surgery and oral medicine, NHS England, 2015, page 38*
<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-oral.pdf>

⁵³ <https://www.pcc-cic.org.uk/article/dental-contract-reform>

Many areas already have a Level 2 service for oral surgery but there are large gaps in provision across the country. In some places, there are no Level 2 services, or they are not contracted to do the full range of work. Commissioners must ensure that the auditing and performance management of Level 2 services is robust.

Patients who request a general anaesthetic

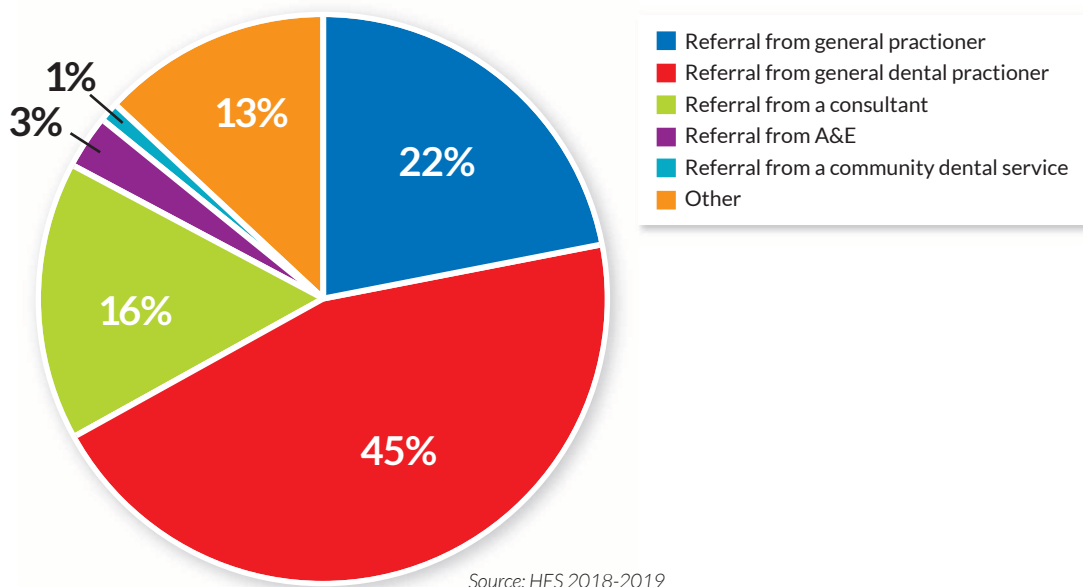
Some patients request a referral for general anaesthetic even though it is not clinically necessary. GDPs should advise these patients of the risks, albeit small, of general anaesthesia and encourage them to have local anaesthetic with sedation in primary care as a more appropriate alternative. General anaesthetic should only be given out of necessity, based on the complexity of the procedure or other modifying factors.

Referrals from GPs and others

Referrals from GPs account for 22% of referrals to oral surgery/OMFS as shown in figure 8. This high percentage might be partly due to the cost of visiting a dentist and/or problems accessing a local dentist. These referrals bypass the appropriate triage system for dental cases. We believe that doctors should refer to a GDP rather than straight to hospital for dental conditions, as outlined in the oral surgery commissioning standard⁵⁵ – except in cases such as suspected oral cancer, where sending cases via a GDP might delay diagnosis of a serious illness and be a barrier to good patient care.

As many as 16% of all referrals to oral surgery/OMFS are from consultants in other departments, many of which are for pre-operative dental assessments. It is important that this internal process is well managed so that these referrals do not add to capacity pressures on oral surgery/OMFS (see *Managing intra-trust referrals*, page 33).

Figure 8: Outpatient activity in dental specialties by referral source



The need for managed clinical networks (MCNs)

To address all of these issues, we need an effective triage system to ensure that hospitals only see the cases that need specialist attention and that GDPs, the CDS and Level 2 services all provide the appropriate level of care based on levels of complexity as set out in the commissioning standards.

This should be overseen by MCNs, which provide clinical input, expertise and advice to commissioners planning service delivery. Commissioners and MCNs operating within transformed services should ensure that the correct level of quality and outcome are being achieved for patients regardless of setting.

MCNs are not yet established in many areas and when we asked the trusts if they worked with an oral surgery MCN only

⁵⁵ *Guide for commissioning oral surgery and oral medicine, NHS England, 2015, page 20*

43 (out of 106 questioned) confirmed that they do (see page 29 for more on the structure of MCNs and how they fit into wider Local Dental Networks).

The right hospital setting: outpatient, day case and inpatient

Inconsistent recording

We found that the care settings for oral surgery procedures are recorded inconsistently across the country.

Approximately 50% of trusts record procedures carried out in an outpatient setting as a zero-day length of stay (day case) – see *Price variation outpatient vs day case* (below). This means it is impossible to tell if all patients are being treated under the appropriate anaesthetic, or how many general anaesthetics are used in dentistry, and under which circumstances.

Knowing the anaesthetic given would also allow us to look at the variation between trusts and identify areas of good practice. However, the type of anaesthetic is not recorded on HES, and cannot be assumed from the recorded care setting.

Price variation outpatient vs day case

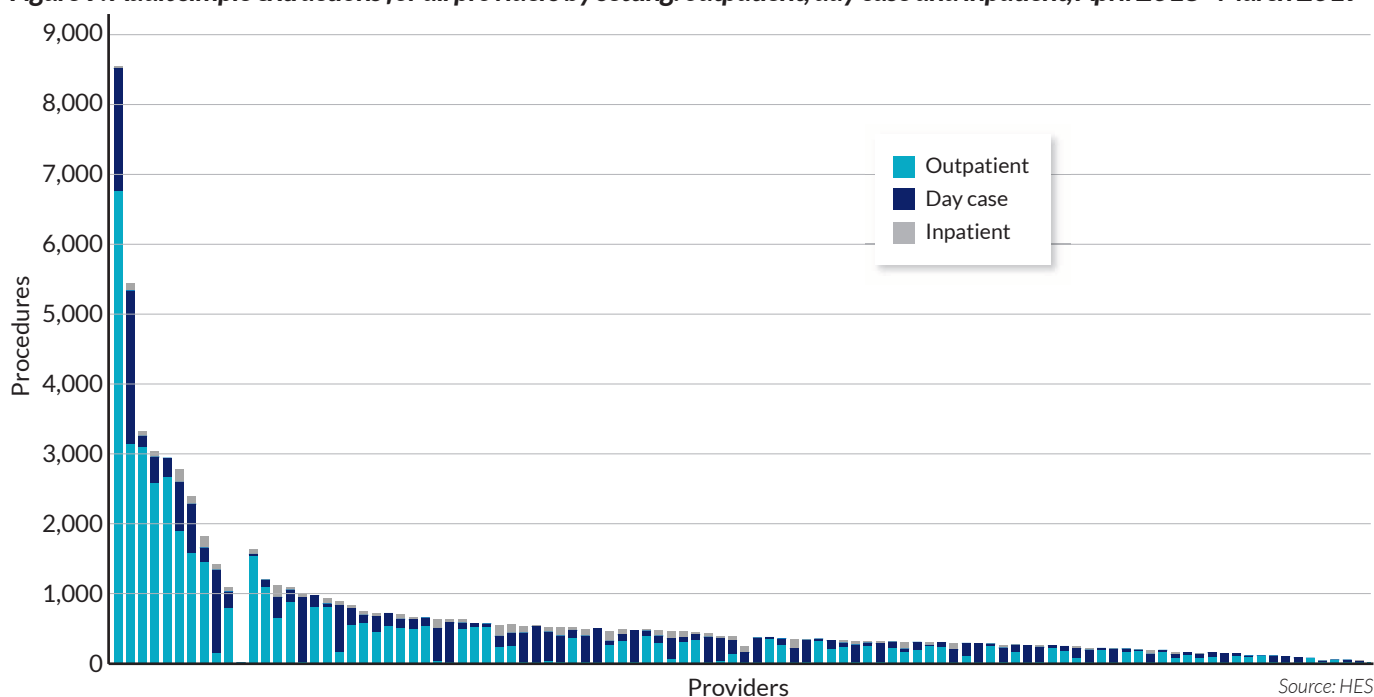
In oral surgery/OMFS, there is a significant price difference depending on whether the appointment is recorded as an outpatient or day case.

Some trusts we visited acknowledge that some outpatient procedures are recorded as a day case even though the treatment was delivered as an outpatient, because there is a higher payment. From analysis of the available data and observations from our deep-dive visits, we estimate that around 50% of trusts are recording all invasive procedures as day cases whether or not they were performed in a dental chair with a local anaesthetic. In some cases, this recording is accepted by the commissioners, in others it appears that the commissioners do not know of this inaccurate recording.

The confusion isn't helped by the fact that there is no clear definition of an outpatient procedure, or how it differs from a day case. For example, does it depend on the nature of the procedure or the place where the procedure takes place? This lack of clarity leaves the coding choice open to discretion, resulting in unwarranted variations that need to be addressed.

These anomalies are further reflected in figure 9 which shows a wide variation in the proportion of day cases and outpatients recorded – in some non-dental hospitals (shown on the right), all adult simple extractions are recorded as day cases or inpatients.

Figure 9: Adult simple extractions for all providers by setting: outpatient, day case and inpatient, April 2018 - March 2019



Source: HES

The variation in recording procedures as day case or outpatient is causing financial disparity between trusts since those who record a procedure as a day case are financially rewarded compared with those who record the same procedure as an outpatient.

This anomaly might create a perverse incentive in favour of recording procedures as day cases, reducing the accuracy of the HES data.

To address this anomaly, we recommend that outpatient and day case prices for dental procedures should be reviewed to ensure they support clinically appropriate choices of setting and remove any perverse incentives for inaccurate recording.

Volumes of inpatient overnight stays

Some hospitals report a significantly larger proportion of oral surgery/OMFS care as inpatient overnight stay compared to others. We found examples of trusts where almost 20% of cases were overnight stays against a national average for oral surgery/OMFS cases of 5%⁵⁶. Inpatient stay for some straightforward procedures, such as simple extractions, are surprisingly high at 7% nationally⁵⁷.

Although some straightforward dental procedures are performed at the same time as a more complex procedure, such as head and neck cancer surgery or orthognathic surgery, this only accounts for 38% of cases⁵⁸. This suggests that inpatient stays for dental procedures should be at a lower level. The reasons for inpatient variations should be looked at in more detail once we have a consistent way of recording care settings.

Given the pressure on theatre sessions generally within acute trusts, the overnight stay needs to be kept to an absolute minimum, unless clinically necessary.

In some cases, trusts told us there were social reasons for patients staying overnight when clinically there was no indication. On our deep-dive visits, we heard examples of innovative ways around this, such as chaperoning patients at home and the use of remote support.

We would expect the hub and spoke service model recommended by the GIRFT OMFS national report to significantly reduce the level of overnight stays for dental surgical procedures undertaken in spoke hospitals.

Some trusts we visited challenged the data on overnight stays. We found instances where overnight stay was recorded in error because the patient hadn't been discharged before the administrator went home the previous day and so was assumed to have stayed overnight.

The need to code procedures in all settings

If procedures were coded consistently, whether outpatient, day case or inpatient, with consistent recording of information on anaesthesia and comorbidity, we would be able to see more clearly which patients should be seen in hospital, in which setting, and which patients should be referred back to primary care. This would help us reduce unwarranted variations, enable more effective referral management and help to relieve pressure on busy oral surgery departments.

⁵⁶ See footnote 1

⁵⁷ See footnote 1

⁵⁸ See footnote 1

The right hospital setting recommendation

Recommendation	Actions	Owners	Timescale
<i>Also see cross-specialty recommendations 1-9</i>			
13. Outpatient and day case prices for dental procedures should be reviewed to ensure they support clinically appropriate choices of setting and remove perverse incentives for inaccurate recording. Specifically, a day case setting should only be used and recorded where clinically necessary, for example where general anaesthetic or sedation requiring recovery is used.	a NHS England and NHS Improvement, with case-mix colleagues in NHS Digital, to review outpatient and day case prices, once Recommendation 2 on coding of anaesthetics has been implemented and the definition of an outpatient procedure has been reviewed (as recommended by the GIRFT report on Oral and Maxillofacial Surgery).	NHSE and NHSI, NHSD, GIRFT	To commence after the definition of an outpatient procedure is reviewed and upon completion of action 2a.

Reducing referrals for temporomandibular disorder (TMD)

Temporomandibular disorder (TMD), also known by names such as facial arthromyalgia, pain dysfunction syndrome and temporomandibular joint disorder (TMJD), are the second most frequent orofacial pain after odontogenic pain, and are a common reason for referral to secondary care⁵⁹. However, as outpatient diagnoses are not recorded and management of TMD does not involve coded procedures, accurate data on the volume of cases being referred to hospital are not available from usual sources.

This lack of clarity isn't helped by the fact that other orofacial pain conditions, such as burning mouth syndrome, trigeminal neuralgia and 'phantom' tooth pain are not recorded either, so we can't refer to data on these conditions as a proxy by which to estimate numbers of TMD referrals.

To understand the volume of activity, the GIRFT team discussed TMD care with hospitals during our deep-dive visits and, in the pre-visit questionnaire, asked them to provide answers to the following:

Q1 - Who provides treatment for patients presenting with TMD?

Q2 - How many patients per year present for treatment for TMD?

Of the 106 trusts visited, the response rate was 92% for Q1 and 67% for Q2.

Based on the responses, oral surgery and OMFS are the two specialties most commonly seeing patients for TMD, and we estimate that there are between 32,000 and 73,500 attendances at hospital for TMD each year. This represents between 12% and 29% of all oral surgery/OMFS outpatient clinic appointments.

We have no method to identify the complexity of TMD cases presenting in hospitals. But epidemiological data suggests that only 14% of TMD cases have high pain-related disability⁶⁰ which might require bespoke or specialist-led intervention.

It is therefore likely that many patients could have been managed by appropriate, dedicated services outside of hospitals. However, we found that many hospitals have no effective referral management system for TMD and some accept every TMD case referred to them.

Recent evidence from the DEEP study⁶¹ suggests that presentation in hospitals is likely to be the result of a complex, and potentially unnecessary, series of inter-linked referrals which don't necessarily improve the patient's condition.

The variation in reported numbers of TMD cases raises questions about the consistency of our approach to care for these patients, given that a large number could be treated in non-invasive ways away from hospitals.

⁵⁹ Aggarwal et al., 2012, #93191; Beecroft et al., 2013, #63466; Durham et al., 2016, #92390

⁶⁰ <https://pubmed.ncbi.nlm.nih.gov/24275219-summary-of-findings-from-the-opera-prospective-cohort-study-of-incidence-of-first-onset-temporomandibular-disorder-implications-and-future-directions/>

⁶¹ Durham, J, Breckons, M, Araujo-Soares, V, Exley, C, Steele, J, Vale, L. 2014. Developing effective and efficient care pathways in chronic pain: DEEP study protocol. BMC Oral Health. 14:6.

RCS national guidelines on the management of TMD in primary care⁶², which were due to be updated in 2020, provide guidance for GDPs and GPs on how to diagnose and treat TMD. We believe the revised guidelines should include clearer guidance on when to refer patients to secondary care. Contract reform may also be needed to remove barriers to treatment in primary care – for example, addressing the high cost to patients of bite-raising appliances – as part an overall strategy to ensure that the guidelines are embedded and followed in day-to-day practice.

Wide variation between trusts

We found wide variation in how cases are managed once they've been referred. Some hospitals have multidisciplinary clinics with psychologists and physiotherapists who can help direct patients towards self-help, while others have no MDT.

In some trusts, patients are seen by a senior consultant on their first visit who can advise them and discharge them if hospital treatment is unnecessary. In others, patients are seen by junior staff, who may be unsure of the condition and how to review cases effectively. This means they are reluctant to discharge patients and instead make repeat appointments.

There needs to be a review, led by an expert in the field, on how services should be provided for care of TMD patients across primary and secondary care.

Management of TMD recommendation

Recommendation	Actions	Owners	Timescale
14. Forthcoming revised guidance from the Royal College of Surgeons should be used to provide general dental practitioners and general practitioners clarity on when to refer TMD patients to secondary care. The guidance should also be used to consider whether more care currently provided in hospitals could be provided by a level 2 service based in primary care. This should be supported by action to reduce barriers to treatment in primary care and embed the guidance into everyday practice.	a Establish a national multidisciplinary working group to be chaired by an expert in TMD who has sufficient depth and breadth of knowledge to deliver on the national scale but also to learn lessons from other countries and their systems of care.	NHSE and NHSI	To commence upon publication of the guidance
	b Review barriers to treating TMD in primary care, including the high cost to patients of some appliances, as part of the contract reform process.	The multi-disciplinary group set up by action 14a	To commence following 14a
	c Update and revise the Royal College of Surgeons guidelines for primary care management of TMD, with guidance on how services should be provided for TMD patients across primary and secondary care. This should take into account existing research such as the NIHR-funded DEEP study and on-going international collaborative research into self-management.	The multi-disciplinary group set up by action 14a	To commence following 14a

⁶² Temporomandibular Disorders (TMDs): an update and management guidance for primary care from the UK Specialist Interest Group in Orofacial Pain and TMDs (USOT) by J.Durham, V.Aggarwal, S.Davies et al

Oral medicine

Oral Medicine involves the diagnosis and non-surgical management of chronic, recurrent and medically-related disorders of the mouth in adults and children. This includes mucosal disease, salivary gland disease and orofacial pain.

Providing oral medicine treatment in the right setting

Oral medicine cases cover a wide range from oral disorders such as dry mouth to potentially life threatening illnesses and oral manifestations of systemic health conditions. Care should follow a pathway approach as outlined in the standard for commissioning oral surgery and oral medicine⁶³, with patients triaged based on the level of complexity (see below) and in close co-ordination with paediatric dentists who diagnose and treat some oral medicine conditions in children.

The pathway should ensure equitable access to oral medicine services, regardless of geography, and that the most serious cases get seen urgently by an oral medicine specialist:

- General dental practitioners (GDPs) and general practitioners (GPs) should refer to OMFS/oral surgery clinicians working within oral medicine pathways
- OMFS/oral surgery should refer patients on to an oral medicine specialist, based on complexity and urgency
- Shared care arrangements and patient-focused standards should support delivery of equitable care across the pathway.

However, we have found that this is difficult to achieve. One problem is that most oral medicine specialists in England work in the country's dental hospitals, based in the large cities. This makes it harder to ensure equitable and timely access to specialist oral medicine care across regions.

Oral medicine levels of complexity

Level 1: GDPs can diagnose and treat issues such as minor salivary and mucosal changes, orofacial pain or numbness, and triage suspected cases of cancer for urgent referral.

Level 2: appropriately-trained GDPs, OMFS or oral surgery specialists can review and treat cases, such as mucosal disease or salivary gland disease, where these are not critical. They can also sometimes provide care at Level 3 under the direction of oral medicine specialists.

Level 3: patients who have serious illnesses, complex comorbidities, or oral complaints that manifest other underlying medical conditions, should be seen by oral medicine specialists.

The need for strong regional networks

The commissioning standard outlines a service redesign based on a regional hub and spoke model that would help to improve access to specialist care and enable a better care pathway. Each dental hospital would work with non-dental hospitals and primary care in their region, overseen by a managed clinical network. The MCN would make best use of resources, including team working with staff from other specialties, to ensure that patients are seen in the right setting depending on their need.

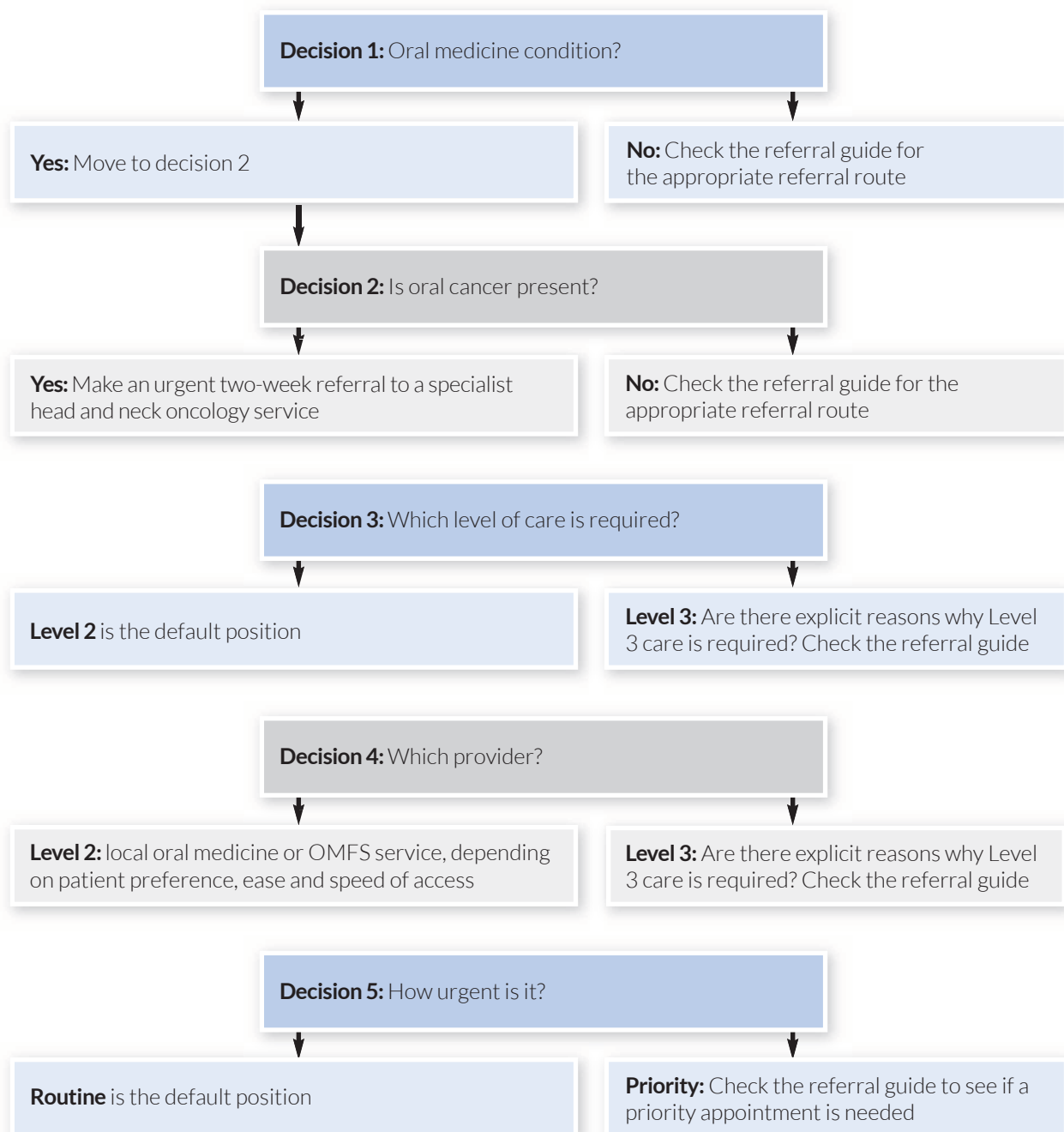
The commissioning standard doesn't distinguish if there should be a separate MCN for oral medicine distinct from oral surgery. However, the panel below describes an example of an integrated MCN working effectively to provide equal access to care for all patients in the region.

Yorkshire and Humber Oral Medicine MCN hub and spoke model

In the Yorkshire and Humber region, provision of oral medicine care was inconsistent with limited planning of services and little co-ordination between primary and secondary care. A step-wise approach is being taken across the region to introduce an MCN hub and spoke model that reflects co-operative working between oral medicine, oral surgery, OMFS and other stakeholders.

The model was developed in West Yorkshire, where all referrals to the three specialties are managed through a network that includes an oral medicine specialist unit in a dental hospital, five OMFS units and GPs in primary care. The aim is to ensure equal access to quality care across the network of providers by working together in a coordinated way to make best use of NHS resources.

A key element of their approach is a referral system based on five core decisions supported by a detailed referral guide for reference.



Data and coding issues

Although oral medicine is a specialty, it does not have distinct main specialty or treatment function codes and there are no specific procedure codes as the activity is mostly diagnostic tests rather than procedures.

In non-dental hospitals, the lack of oral medicine consultants discussed above means that most of the cases are seen by OMFS or oral surgery⁶⁴. In dental hospitals, patients are often treated by oral medicine consultants, but the work is nevertheless coded to OMFS or oral surgery because of the lack of a main specialty code. Some hospitals record oral medicine under a dental medicine main specialty code, which also covers specialties such as oral and maxillofacial pathology and oral radiology, which is not helpful for data analysis.

As a result of these issues, we cannot know the true number of patients presenting with an oral medicine condition. Recording diagnoses and comorbidities for outpatient attendances would help us understand the numbers of patients being referred for oral medicine conditions. However, there are no diagnostic codes and comorbidities are generally not recorded.

We therefore have no accurate picture of the work being done in this area, the scale of the need, or how patients are being managed. We need a better system to record the volumes and type of oral medicine cases. This will require a change in the recording of outpatient diagnoses, and unique main specialty and treatment function codes for oral medicine (Recommendation 1, action 1b).

Managing referrals for oral biopsies

Where a risk of oral cancer is identified, patients will be referred to secondary care for further examination and biopsy. We found variation in the pathway for this activity across the country. In the majority of the trusts we visited, these patients are being seen by OMFS or oral surgery and in some cases by junior staff who may not be experienced enough to clinically assess the presenting lesion. We also found variation in how the results are fed back to patients and how quickly.

The number of cases being referred in for biopsy is large, with an England average per trust of over 300 per year being recorded as either a biopsy of the mouth or lesion of the jaw or mouth.

Many of these cases are referred under the two-week urgent pathway. But often they turn out to be benign cases that did not require an urgent referral. In most cases, consultants in OMFS and oral surgery will step down an obviously benign condition, such as a mucocele or polyp, from the two-week pathway.

Variations in review of oral biopsies

We found wide variation in the systems used in trusts for review of patients who have undergone biopsies. In some trusts, consultants will review in person everyone who has had a biopsy. In others, depending on the clinical appearance of the lesion, the consultant will organise a telephone review if they are confident the lesion is benign.

The need for accurate data

Much of the information we have related to biopsies is anecdotal – we need more data to be sure of what is happening in local trusts, including who is seeing the patient, how their results are fed back and how quickly this is done, which should be collected in local audits. Defining what is meant by the commonly used codes related to biopsies would also be extremely useful, including a clearer distinction between incisional and excisional.

CASE STUDY

Providing a streamlined biopsy service through single visit clinics

Portsmouth Hospitals NHS Trust

One-stop clinics have shortened biopsy waiting times for patients with soft tissue mouth lesions and reduced the need for multiple appointments, freeing up capacity in a busy OMFS unit.

Convenient, one-stop appointments

The team identifies appropriate non-urgent referrals with soft tissue lesions likely to require a biopsy. Selected patients receive a letter, explaining that they can have their biopsy at the same time as their consultation, without the need for a second visit. The clinics are held in the evening, so patients and their family members don't have to take time off work to attend. Unless contra-indicated, patients are offered a telephone follow-up instead of another hospital appointment. If there are any concerns at follow-up, the patient is seen in person at the next clinic.

An alternative to two-week referrals

Because the service is faster and more streamlined, it is hoped that GPs will use it as an alternative to two-week referrals in instances where there is a stronger likelihood the lesion is benign. Two week referrals remain high however, and more action is needed to change referring behaviour.

Results

Clinic 'did not attend' rates have gone down and waiting times are shorter for patients. By reducing the number of appointments and face-to-face follow-ups, the service has freed up clinic capacity and clinician time, so that more urgent cases are seen quickly. Feedback from patients has been positive, especially for evening appointments and telephone follow-ups.

Oral medicine recommendation

Recommendation	Actions	Owners	Timescale
15. Dental and non-dental hospitals and primary care should work together in regional oral medicine networks to manage referrals and deliver care to shared standards based on a hub and spoke model and clearly defined pathways as outlined in the NHS England commissioning standard.	a Oral Medicine MCNs to be set up to include hospital OMFS and oral surgery units, tertiary oral medicine consultants, GDPs and GPs so that shared standards and care pathways can be agreed.	GIRFT, NHSE and NHSI, providers	Discussion to begin following publication
	b Develop a plan for change.	MCNs, NHSE and NHSI, trusts	Upon completion of 15a

Restorative dentistry

Specialist restorative dentistry is for patients with complex dental problems requiring multidisciplinary care and is usually consultant-delivered in a hospital setting. Examples include:

- Treatment planning and oral rehabilitation of people who have had surgery for head and neck cancer, often involving extensive reconstruction of the face and mouth.
- Management of developmental conditions such as cleft lip and palate, hypodontia (missing teeth), amelogenesis imperfecta and dentinogenesis imperfecta in conjunction with paediatric dentistry.
- Treatment and long-term management of oral manifestations of systemic conditions, such as periodontal disease associated with diabetes.
- Oral rehabilitation after major dental trauma.
- Care for patients whose dental problems are not complex but whose comorbidities increase the complexity of their treatment, requiring treatment in hospital.
- Managing the transition of patients from paediatric dentistry to adult specialist restorative dentistry.

Restorative care for patients with complex dental problems, as described above, should be delivered as part of a multidisciplinary team with a consultant in restorative dentistry as a core member of the team from the outset, following nationally agreed pathways and guidelines⁶⁵.

However, this is not possible in many trusts around the country. We have found variations in the specialist care available, and serious workforce issues, including a lack of restorative consultants in some non-dental hospitals. Anomalies in coding and recording of information also make it difficult to understand volumes and plan services effectively.

In making these observations and our recommendations, we note that the Commissioning Standard for Restorative Dentistry was published in July 2019 – the last among the main dental specialties – and we expect that service provision will improve over time as the guidance is bedded in.

Understanding what happens in the hospital

We tried to look at the volume and complexity of cases being carried out in hospitals but we faced problems analysing the HES data:

Modifying factors not recorded: The vast majority (88%) of dental restorative procedures are undertaken as outpatients⁶⁶ as most do not require a general anaesthetic. Diagnoses and comorbidities are not recorded for outpatient procedures and therefore the modifying factors that can mean a relatively straightforward procedure is complex to treat are unknown.

Poorly defined procedure codes: There is a lack of clarity as to what activity should be included under some procedure codes. For example, one trust we visited, where there was no restorative specialist, included frenectomies under a periodontal procedure code. The procedure code for the provision of an obturator (a prosthesis to cover a gap or tissue opening in the mouth following surgery for head and neck cancer) is the same as that for a denture. This lack of clarity needs to be rectified to enable accurate data analysis.

There may not be a procedure code: In some units the restorative team is responsible for the provision of splints for temporomandibular disorder (TMD) but there is no procedure code for this treatment (see *Reducing referrals for TMD*, page 54).

Activity not recorded: The number of implants is difficult to tell from the procedure codes as these are commissioned individually in many areas with separate requests for funding from NHS England. Even though this should not have affected the HES recording of this activity, the GIRFT team feels it might explain the low recorded numbers (see panel on page 61).

⁶⁵ NICE Cancer Service Guideline CSG6 (2004) Improving outcomes in head and neck cancers <https://www.nice.org.uk/guidance/csg6>

⁶⁶ See footnote 1

Understanding implants

The overall numbers of implants recorded in the HES data is very low at 1,452 nationally across dental hospitals and hospital trusts. Some trusts record less than three procedures in a year.

Less than a third of implant procedures (491) are in non-dental hospitals. Of these, 50% record no appointment with a restorative dentist in the previous six months. This points to a lack of planning for the final restoration.

We need to understand what's happening with implants as they are the restoration of choice for many patients who have undergone significant trauma or surgery.

What's causing the anomalies?

With no specific commissioning guidance on implants, there is wide variation with some areas not commissioning any dental implant surgery.

In some areas, activity may be higher but is not recorded due to incorrect coding. Funding arrangements for implants may also contribute to the low numbers. The cost of implants means that their provision is restricted and often individual funding requests are needed, which is time consuming. Responses to funding requests are often inconsistent within CCGs and across regions.

In 2019, the Faculty of Dental Surgery considered this as part of a review of standards of care for NHS-funded implants, and issued guidance⁶⁷, which said: 'Ideally, funding for implant treatment for all providers should be based on an annual block contract with compliance submissions, thus ensuring equitable access to implant provision for patients who meet the criteria outlined. It is anticipated that following pilot work undertaken by NHS England on funding and provision of implant treatment, the revised system for funding will address this variation.'

We support this review and look forward to the results of the NHS England pilot.

What's needed: a review of the current procedure codes

We believe that NHS Digital and the GIRFT coding workstream should work with RD-UK (the association of consultants and specialists in restorative dentistry) to review current clinical coding to capture, more effectively, the volume and extent of restorative treatment in hospitals, particularly for patients with head and neck cancer, hypodontia, cleft lip and palate and maxillofacial trauma. The addition of comorbidities as outlined above will also be useful.

A process for clarifying procedure code definitions is already underway in orthodontics (see page 70) – and this could be used to inform a similar review in restorative dentistry.

Improving access to specialist restorative care

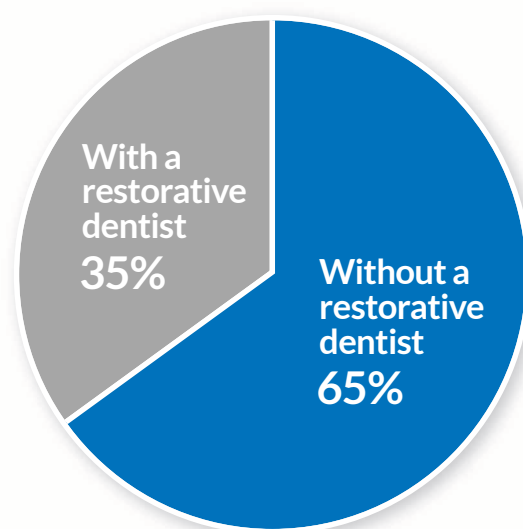
We found significant variation in provision of the mono-specialties of prosthodontics, endodontics and periodontics in dental hospitals. In some, the caseload is dominated by one of the mono-specialties. Some dental hospitals do not appear to offer an implant service, although this may be the result of poor coding practice (see *Understanding implants*, above).

Availability of restorative dentistry in non-dental hospitals

Among non-dental hospitals, we found that only 35% of restorative dentistry procedures have been coded to a consultant in restorative dentistry, as shown in figure 10. Some of this may be due to inaccurate coding, but it would appear that a lot of restorative work, such as implants, dentures, obturators, periodontal surgery and endodontics, is being done by oral surgery or oral and maxillofacial surgery (OMFS) in the absence of restorative specialists. This needs further investigation.

⁶⁷ Royal College of Surgeons Faculty of Dental Surgery and RD-UK Guidance on the standards of care for NHS-funded dental implant treatment 2019 <https://www.rcseng.ac.uk/dental-faculties/fds/publications-guidelines/clinical-guidelines/>

Figure 10: Attribution of restorative dentistry procedures carried out in non-dental hospitals to a restorative dentistry specialist, April 2018 - March 2019



Source: HES

Restorative dentistry as part of MDTs for cancer and complex conditions

Having a restorative specialist presence in non-dental hospitals matters because it is essential for the care of people undergoing treatment for head and neck cancers, cleft lip, cleft palate, hypodontia and other complex congenital conditions. As discussed at the start of this chapter, these patients should have their care delivered as part of a multidisciplinary team with a consultant in restorative dentistry as a core member of the team – and a paediatric dentist for conditions affecting children.

However, we have found that around 20% of head and neck cancer MDTs do not have a consultant in restorative dentistry. The problem may be partly due to a difficulty in recruiting consultants. During our deep-dive visits, hospitals have told us they have advertised positions but have been unable to fill them because of a lack of suitable applicants – see *A workforce to meet future needs of a population*, page 63.

Issues with availability of a specialist workforce have contributed to a situation where NHS commissioners cannot commission a restorative dentistry service in many non-dental hospitals.

This is having an impact on patients. In some cases, it means people who have been through traumatic surgery having to travel long distances to a dental hospital because the right professional is not available to do the work more locally.

NHS England is currently carrying out a review into service configuration which may help to address this issue related to head and neck cancer.

CASE STUDY

Improving head and neck cancer care with restorative presence on MDT

Bradford Teaching Hospitals NHS Foundation Trust

Having a consultant in restorative dentistry on the head and neck cancer multidisciplinary team at Bradford has improved outcomes and reduced waiting times for patients.

A restorative consultant attends weekly MDT meetings and associated oncology clinics. This supports the smooth running of the head and neck cancer service, ensuring patients are dentally fit throughout the oncology journey and that dental support is available when needed before and after surgery.

More joint working, co-ordination and planning

Patients experience an improved pathway with better co-ordination of surgery, joint operations and appointments, and fast access to dental treatment when needed. Benefits include:

- Reduced risk of post-operative complications through early planning and discussion of oral rehabilitation needs
- Extractions are performed at the same time as surgery where possible, allowing more time for post-operative healing
- Dedicated weekly extraction slots allocated for head and neck cancer patients
- Improved access to dental hygiene therapy for long term maintenance of oral health.

Results

Head and neck cancer patients receive the right dental treatment and support when they need it, improving their oncology journey. Treatment times have improved – patients having radiotherapy are assessed and imaged on the day if possible, or at the latest 4-5 days after treatment decision. Those who need dental extractions have them within 4-6 days.

Access for patients with complex orthodontic needs

We have found that hypodontia and cleft lip and palate patients undergoing orthodontic treatment may also have to travel long distances to access specialist restorative care. On transitioning from child to adult, these patients will need complex treatment to restore the dentition, as well as paediatric dentistry to help with advice and treatment planning. This treatment should be provided close to home wherever possible (see *Orthodontics*, page 65).

A workforce to meet the future needs of the population

As well as meeting the needs of those with complex conditions and diseases, restorative dentistry will face increasing demands from the ageing population. Unlike previous generations, 'baby boomers' have largely kept their teeth through extensive restorative dentistry, which will need to be maintained as they get older.

More suitably trained dentists are likely to be needed to manage these more complex issues, such as recycling, revision and replacement of restorations. This is a relatively new phenomenon and dental graduates will need to be supported in coping with these issues.

There will also be an increased need for complex dental management of the ageing population in hospitals and care homes whose treatment will be challenging. Flexible routes to training and bolt-on competency training for higher complexity work will be essential if this vulnerable group are to be cared for and managed. Where possible and appropriate, this treatment should be provided within primary care by suitably trained and experienced dentists.

Innovative approaches to training and development

The scale of current and likely future needs – from cancer care to the ageing population – suggests that Health Education England (HEE) needs to consider more radical and innovative training pathways for restorative dentistry to meet demand. HEE has begun to look at the dental workforce and future training needs. The Advancing Dental Care (ADC) project is due to report in 2021.

Likewise, trusts need to explore how to attract new consultants to work in non-dental hospital trusts and retain them over the long term. As in *Orthodontics* (see page 65), we are seeing trainees turning to private practice after qualification for a variety of reasons, including financial.

One approach trusts should consider is linking with the RD-UK consultant and specialist group, which provides clinical excellence networks for cleft, hypodontia and head and neck cancer. These networks provide education and improvement programmes that both support delivery of high quality care and provide opportunities for career development. Trusts should also look at how positions can be made more attractive in hub and spoke models, for example by offering staff in spoke hospitals more opportunities to work and develop through links with the hub.

Managing referrals

Some hospitals may accept referrals for treatment planning where capacity allows, often under ‘shared care’ arrangements where most of the work is carried out by general dental practitioners (GDPs). However, we don’t know how many cases are referred in this way, or how much of the work is done in hospitals because the information is not recorded.

Most non-dental hospital trusts offering a restorative dentistry service do not accept referrals from GDPs for treatment unless space and facilities allow. However, restorative specialists in some hospitals, such as Oxford University Hospitals and St Georges in London, do support local GDPs with advice and treatment planning.

The guidelines in the Commissioning Standard for Restorative Dentistry set out in detail which professional should provide care in which setting, based on three levels of complexity. Commissioners and trusts should follow these guidelines wherever possible and ensure that they are embedded in local referral systems, and overseen by managed clinical networks that support and quality assure the process.

The need for restorative managed clinical networks (MCNs)

Given the issues described above – including the lack of restorative dentistry consultants to support MDTs and treatment planning in many non-dental hospitals, serious workforce challenges and variation in referral systems – there is a strong case for regional restorative MCNs to provide clinical leadership and to guide commissioning of services, as recommended in the Commissioning Standard for Restorative dentistry.

MCNs will be essential in supporting emerging Level 2 restorative services in primary care, but we know from responses to our questionnaire that these do not exist currently in many parts of the country. Establishing restorative MCNs should be a priority to ensure that people who need complex restorative dentistry can access the right care. MCNs should include a paediatric dentistry presence for patients transitioning from child to adult services.

Restorative dentistry recommendations

Recommendation	Actions	Owners	Timescale
<i>Also see cross-specialty recommendations 1-9</i>			
16. All head and neck cancer, cleft lip and palate and hypodontia MDTs should have a consultant in restorative dentistry as a core member of the team from the outset. The consultants from each specialty should ensure that the patient can move through the treatment seamlessly, without system delays that can cause iatrogenic damage. For children under 18 a paediatric dentist must be involved.	a Review the number of MDTs with a consultant in restorative dentistry.	NHSE and NHSI, GIRFT, RD-UK	For progress within one year of publication
	b Explore how to attract new consultants to work in non-dental hospital trusts. Consider linking with the RD-UK consultant and specialist group, which provides clinical excellence networks for cleft lip and palate, hypodontia and head and neck cancer. These networks provide education and improvement programmes to support delivery of high quality care.	MDTs, trusts, NHSE and NHSI, MCNs	For progress within one year of publication
	c Develop a plan which is aligned with the specialised commissioning of head and neck cancer to fill the gaps and support future needs.	NHSE and NHSI	For consideration following report publication

Orthodontics

Orthodontics is the dental specialty concerned with facial growth, development of the teeth and the occlusion (the contact between the upper and lower teeth), and the diagnosis and treatment of malocclusions and facial irregularities.

Orthodontic treatment involves appliances and includes corrective surgery for facial deformity (orthognathic surgery), and treatment for the most complex conditions, such as cleft lip and palate and severe hypodontia, and most often requires multidisciplinary care.

Like their colleagues in restorative dentistry, orthodontists often work within multidisciplinary dental and medical teams. Correcting alignment of jaws and teeth affected by conditions such as cleft lip and palate, cranial facial anomalies and severe hypodontia are essential elements of hospital orthodontics.

Orthodontics in the hospital setting most often involves other dental specialties such as restorative dentistry or oral surgery as part of the comprehensive care for patients.

Improving quality and access to orthodontic services

Most of the people who need orthodontic treatment are children and young adults in full time education. Definitive orthodontic treatment will take two years on average, and more in complex cases, with regular appointments at six to eight weekly intervals. This makes it important that care for children and young people should be provided close to home wherever possible, as stated in the NHS Long Term Plan.

Orthodontic care is provided in a variety of different settings – by consultant-led services in hospitals, by specialist orthodontists working in primary care and the Community Dental Service (CDS), and by general dental practitioners (GDPs) qualified to perform basic orthodontic procedures.

Regional inequalities

On our deep-dive visits we found that the provision of orthodontics in primary care and Level 2 settings varies from region to region, resulting in variations in the numbers of cases being referred to hospitals. A recent Health Education England report on the oral and dental workforce⁶⁸ highlighted regional inequalities in access to orthodontic care.

In order to understand and address these variations, we need to look at how orthodontic services are commissioned to meet patient needs and ensure care is provided in the most appropriate setting.

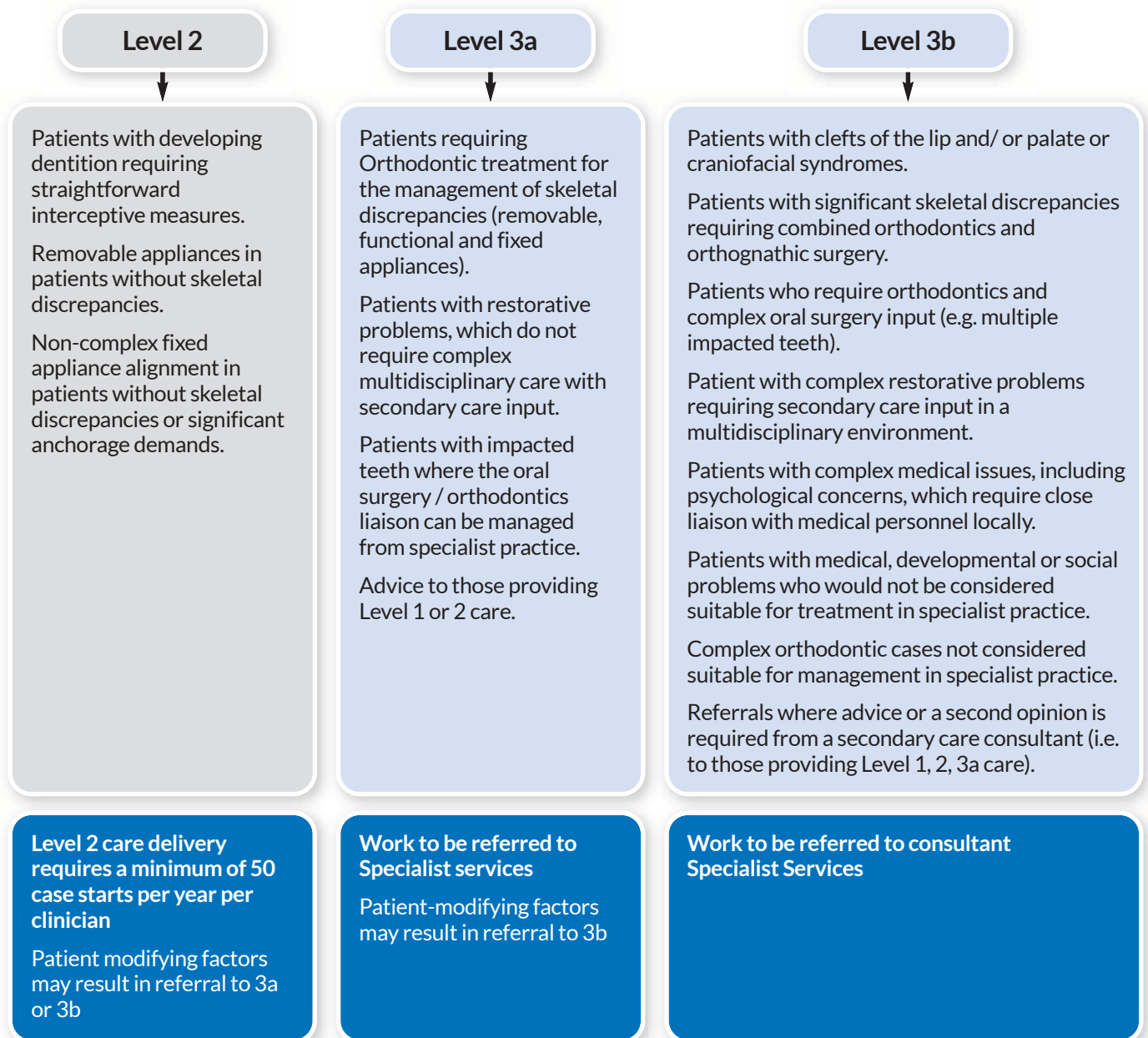
Variations in commissioning

Orthodontic cases are triaged using the Index of Treatment Need (IOTN)⁶⁹ based on severity of orthodontic need. However, IOTN does not indicate the complexity of the case. This is defined by the levels of complexity set out in the commissioning standard for orthodontics – as shown in figure 11 below.

⁶⁸ *The Future Oral and Dental Workforce for England: Liberating human resources to serve the population across the life-course Health Education England 2019, page 35*

⁶⁹ See <https://www.bos.org.uk/BOS-Homepage/Orthodontics-for-Children-Teens/Fact-File-FAQ/What-Is-The-IOTN>

Figure 11: Complexity assessment of orthodontic treatment.



Source: NHS England Guide for Commissioning Orthodontics

Level 2 and Level 3a treatment should be provided predominantly in primary care – Level 2 care by practitioners with enhanced skills working to a treatment plan devised by a specialist orthodontist, and Level 3a by practitioners on the specialist list, with a formal link to a consultant-led managed clinical network (MCN). Level 3b treatment is generally delivered in a hospital setting – including some Level 3a cases that become Level 3b as a result of modifying medical or social factors.

However, recent efforts to commission Level 2 and 3a treatments outside of hospitals have led to different outcomes in different parts of the country, depending on the supply of practitioners with enhanced skills and practitioners on the specialist list. In some areas of the country the commissioning has resulted in a reduction in demand for hospital services, but in others it has led to an unexpected increase in demand.

The picture is complicated by the limitations of the current coding system, which make it difficult to identify the complexity of the patients being accepted and treated in hospital. This is discussed further on pages 24 to 28.

Ensuring equitable access through networks

We believe that these issues can only be solved by consultant-led MCNs which can improve system design and advise commissioners on how to achieve appropriate and equitable delivery of orthodontic care across an area (Recommendation 6). It is important that these networks are funded to carry out this work.

Workforce and recruitment

We have found significant problems with recruitment of orthodontic consultants in some geographical areas, such as the East of England. We have been told there is a 30% vacancy level nationally, creating a significant shortage in the consultant workforce.

In some instances, the lack of staff leads to the unit closing their doors to new patients, and in the worst cases, units closing altogether. This can have a knock on effect on surrounding hospitals – and cause considerable inconvenience to patients and families who have to travel to another location further from home, at six to eight weekly intervals, and to have their treatment continued by a different clinician which will inevitably increase the treatment time. This workforce shortage can also have a knock-on effect on other dental services, such as orthognathic services.

Some of the recruitment issues are a result of the desire for part-time working within the hospital as consultants often prefer to have some sessions in NHS or private specialist practice, where they may be paid more for performing less complex treatments.

It also stems from the fact that trainees are unwilling to move to out of the way locations or hospitals that do not have a well-established orthodontic department. In some cases, they may be the sole orthodontist in the hospital and may feel isolated without exposure to the wide range of specialties they would have in a larger trust.

From our discussions with the British Orthodontic Society (BOS), there appears to be a high vacancy rate at post-Certificate of Completion of Specialty Training (CCST) level training for similar reasons to those discussed above. In a 2019 survey by the BOS Training Grades Trades Group on Barriers to Post-CCST Training in Orthodontics, more than 70% of those who were reluctant to continue to post-CCST training cited salary concerns as one of the reasons, while 63% mentioned relocation⁷⁰.

Worryingly, the high vacancy rate includes areas that previously enjoyed 100% fill rates, such as London.

Some hospitals are taking action to turn this round, for example by actively encouraging applications from trainees nearing the end of their training for vacant posts in the trust in which they previously trained, or actively focusing on succession planning. But many are getting by with stopgap measures. On our deep-dive visits, we heard of a number of orthodontic units employing consultants who have retired and returned to cover their old position on a locum basis, as well as units using external locums. This is not viable over the long term.

Where units have lost senior staff and have been unable to recruit, their capacity to train is reduced. This can result in a loss of training posts, which in turn makes the unit less attractive to new consultants.

We think there is a need for trusts to look at how they can make these positions more attractive, perhaps by integrating staff between smaller and larger hospitals and involving them in multidisciplinary teams (MDTs), so that they have access to the same opportunities as colleagues in larger trusts. We understand that the Office of the CDO has asked the British Orthodontic Society to review the workforce in orthodontics and we welcome this review.

Better mix of skills in orthodontic units

Given that the workforce issues described above are likely to continue, we will need to think creatively about how services are delivered and develop a better skill mix to increase capacity within existing resources, as outlined in the commissioning standard for orthodontics.⁷¹

In particular, orthodontic therapists can perform a range of tasks that do not require specialist skills. We found examples of hospitals employing orthodontic therapists to great effect, allowing consultants to focus on the more complex elements of treatment, which in turn enables more patients to be seen.

Data from the General Dental Council shows there is now one orthodontic therapist for every four orthodontists in England⁷². We support this trend and call for more therapists to be trained and employed in hospital trusts to improve the mix of skills available in orthodontic units.

⁷⁰ British Orthodontic Society, *Barriers to Post-CCST training in Orthodontics, unpublished data presented to the BOS Consultant Orthodontic Group symposium February 2019*

⁷¹ *Guide for Commissioning Orthodontics, page 24* <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-orthodontics.pdf>

⁷² *General Dental Council. UK GDC Registrants, May 2017. In: GDC, editor. London: GDC; 2017.*

Some units have told us they find it hard to retain orthodontic therapists, and that once trained they move to orthodontic specialist practice where the pay is higher. On the other hand, some units which train therapists have an excellent track record in retaining staff. Many departments allow existing dental nurses, who have a loyalty to the unit, to develop to become orthodontic therapists as part of their career progression. We endorse this approach.

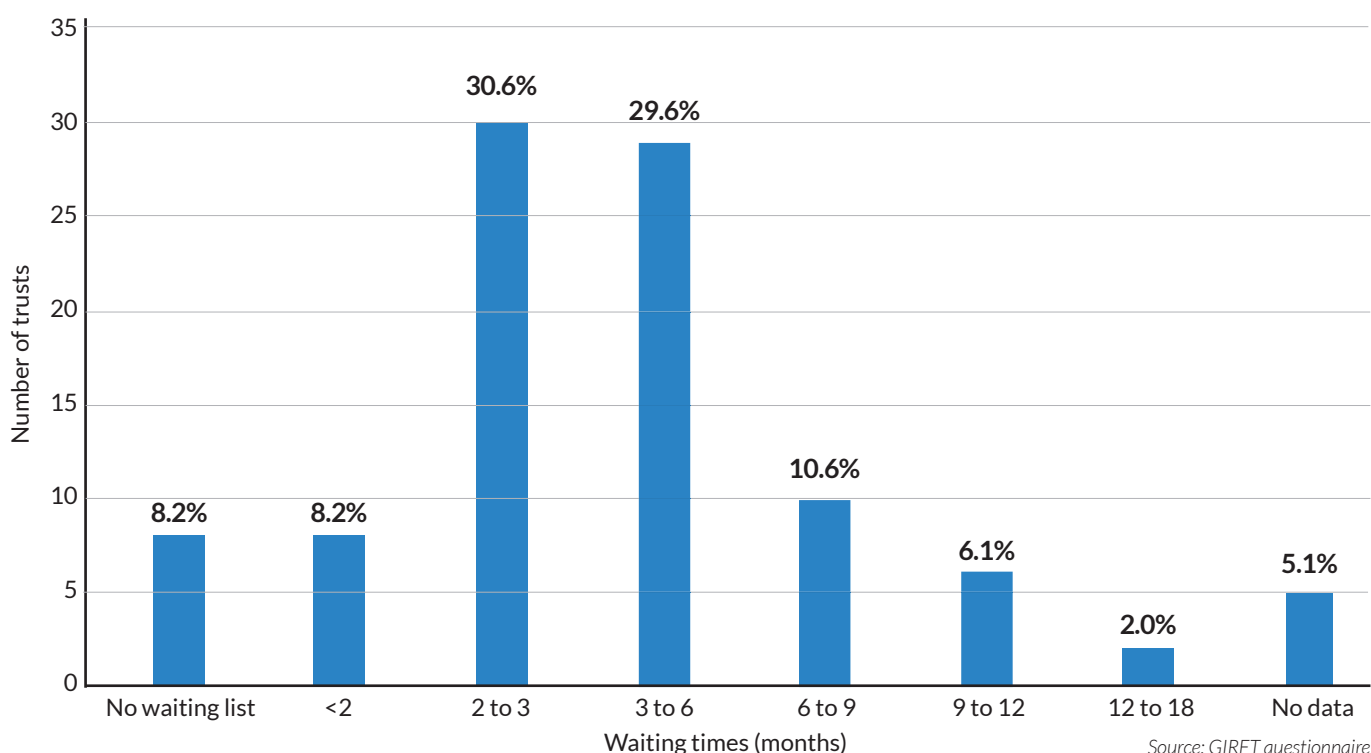
Waiting times for orthognathic surgery and tooth exposures

In some cases, orthodontic treatment is held up waiting for another specialty – for example, where orthognathic surgery is needed to correct the alignment of the jaw, or an impacted tooth needs to be exposed before the alignment of the teeth can be corrected.

During our deep-dive visits, we have heard of cases where orthodontic patients are waiting up to six months for tooth exposures and up to a year or more for orthognathic surgery following orthodontic preparation. This unduly prolongs what is already a long orthodontic treatment process and makes the risk of iatrogenic damage greater.

Figure 12 shows the length of waits for orthognathic surgery reported to us by trusts in responses to our questionnaire. Almost half (48%) reported average waits of three months or more. A recent audit of cases by the British Orthotic Society (BOS) found waiting times of up to four years in some extreme cases – see panel on page 69.

Figure 12: Waiting times for orthognathic surgery following orthodontic preparation



In some places, delays are due to short term theatre demand issues. But in others, the issues are more long term.

In a few cases, delays occurred in hospitals that had an arrangement with a larger neighbouring trust to provide oral surgery and oral and maxillofacial (OMFS) services under a service level agreement (SLA). These SLAs work well for some hospitals, but others find it difficult to hold the hub hospital to account and we've heard some reports that hubs may cherry-pick which cases to treat.

Index of orthognathic need

The Index of Orthognathic Functional Treatment Need (IOFTN) was developed in 2014 to help prioritise severe malocclusions that are not amenable to orthodontic treatment alone and which therefore need orthognathic surgery as part of treatment. Orthognathic surgery requires a multidisciplinary approach and is rightly delivered in a hospital setting.

The BOS carried out an audit in 2017-18 to find out if the referral criteria were being adhered to. Although it found that more than 90% of cases referred to hospitals did meet the IOFTN score of 4 or 5 appropriate for Level 3 care, there was a large variation in access to surgery. Waiting times ranged from 30 days to four years and two months. The average waiting time was five months.

Reducing delays and treatment times

We need to shorten waiting times so that orthodontic treatment times do not become too long with the resulting risk of iatrogenic damage to the teeth.

To help achieve this, we need better planning and co-ordination of orthognathic surgery. We shouldn't start patients on their orthognathic journey unless we are sure that the surgery can be carried out at the right time so that they don't experience long delays during their course of orthodontic treatment. Planning should also take into account that many patients are students in higher education, who want surgical treatment during term holidays.

CASE STUDY

Simplifying the orthognathic pathway through a single point of contact

Wirral University Teaching Hospital NHS Foundation Trust

Preparation for orthognathic surgery at the Wirral University Teaching Hospital NHS Foundation Trust involves designated dental nurses co-ordinating all appointments and acting as a single point of contact.

Orthognathic surgery can require several preparatory stages, such as taking impressions, facebow recording, and finalising the desired occlusion. Previously, co-ordinating these appointments between orthodontic and OMFS teams had been difficult. There was no clear template to follow, which sometimes led to omissions, duplication and confusion for patients.

Dental nurses co-ordinating all appointments

With their clinical expertise, dental nurses were better positioned than receptionists to organise the system efficiently. They developed a template to schedule and manage all pre- and post-operative outpatient appointments. The nurses co-ordinate the relationship with both specialties, improving inter-disciplinary working – and keep patients informed, giving them a clear schedule of events and appointments to help them prepare for surgery.

Results

Overall, there is a much smoother and better system for orthognathic surgical work-up, with more joint working between orthodontics and OMFS. Each specialty has more clarity on what appointments are necessary and when. The patient journey is less stressful and patients are more aware of the reasons for appointments and the importance of keeping each one.

The need for multidisciplinary teams

Orthodontic treatment often involves other specialties. Complex cases involving orthognathic surgery, severe hypodontia (congenital absence of teeth), cleft lip and palate, and other congenital abnormalities, may need input from consultants in restorative dentistry, paediatric dentistry, oral surgery and oral and maxillofacial surgery (OMFS). To ensure a seamless

journey for the patient, it is vital that these services are provided in an integrated way by MDTs, and carefully planned so that the right services are available when and where they are needed.

Improving definitions of orthodontic procedure codes

There is considerable variation, and significant confusion, in how orthodontic procedure codes are being applied around the country. The codes are not well defined. Many cases are being recorded as non-specific orthodontic procedures. One trust we visited had recorded 5,000 such procedures and could not tell us what work was involved.

We also found that the same code is being applied in different ways in different trusts. For example, the code 'removal of fixed appliance' is being used in some trusts to define the length of active treatment, and in others as the length of treatment including the period of retention. This is the metric that measures length of treatment and could be a measure of effectiveness if used properly.

Because of this lack of consistency in the data, it is impossible to compare the work trusts are doing like for like, or accurately assess the quality of outcomes.

GIRFT has worked with the British Orthodontic Society's Consultant Orthodontic Group (COG) to agree definitions for the orthodontic codes in the OPCS manual and develop guidance for trusts (Recommendation 4). In development of this guidance consideration has been given to the deployment of SNOMED CT.

Monitoring outcomes through Peer Assessment Rating (PAR)

All orthodontic units in trusts should monitor patient outcomes and review their performance using the Peer Assessment Rating index, approved by the British Orthodontic Society. This looks at results across of a group of patients using standard criteria and is essential to monitor and maintain quality of outcomes. The review process should be carried out by a suitably qualified independent assessor and form part of routine quality management – as indicated on page 32 of the commissioning standard.

However, we have found that many trusts are not PAR scoring their finished cases, with some hospitals trusts telling us that they do not have sufficient staff to carry out the rating process. Trusts need to address this issue and provide appropriate training for staff if needed.

Orthodontics recommendations

Recommendation	Actions	Owners	Timescale
<i>Also see cross-specialty recommendations 1-9</i>			
17. Where orthognathic surgery or oral surgery is planned after orthodontic treatment has already begun, patients should not have to wait more than 18 weeks for the surgery, so as not to unduly extend already lengthy orthodontic treatment times or increase the risk of iatrogenic damage.	a Review British Orthodontic Society audit data on waiting times for orthognathic surgery, tooth exposures and extractions required as part of the orthodontic treatment process.	Trusts	For progress within six months of implementation
	b Based on 17a, if the wait is longer than three months, put a plan in place to investigate the causes and reduce waiting times.	Trusts	
	c Participate in national audits of orthognathic treatment outcomes.	Trusts	
18. The Peer Assessment Rating Index should be recorded for every completed orthodontic case with robust external audit of outcomes reported and reviewed through the managed clinical network.	a Establish a champion to enable the monitoring of orthodontic treatment outcomes.	MCNs, trusts	For progress within one year of publication

Special care dentistry

Special Care Dentistry (SCD) is concerned with the improvement of the oral health of adult individuals or groups in society who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability or, more often, a combination of these factors.

These include people with mental illness and cognitive impairment who are more likely to have lost their natural teeth and have higher levels of tooth decay than the general population, and people with dementia. Some of their dental problems may result from medications used to treat their condition, and these groups are less likely to access dental services. It includes the important period of transition as the adolescent moves into adulthood.

Other patient groups include:

- people with complex medical problems, for whom high street dentistry is unsuitable due to the unstable nature of their medical condition
- bariatric patients
- people living with frailty
- those at risk of side effects from medications such as chemotherapy drugs, bisphosphonates

The number of people aged 85 and over is expected to almost double from 1.6 million in 2018 to 3 million by 2043⁷³. This demographic will have increasingly diverse and complex needs, with implications for commissioning of special care dental services⁷⁴, making it likely that the demand for SCD will increase over time.

Variation in commissioning and service delivery

Special care dental services are most often commissioned from the Community Dental Service (CDS) as part of a personal dental services (PDS) contract. In a few locations there are also hospital contracts for SCD work.

We found through discussions with trusts that the contracts, and the service delivered, vary from area to area, as do the relationships between the CDS and hospitals. There is little clarity on exactly what services are commissioned, how much work is done by general dental practitioners (GDPs) or in local hospitals, or whether any work could be done more effectively in a different setting to enhance patient care. We need to get a better understanding in this area (see *The role of the CDS*, below).

Some SCD patients always require a general anaesthetic in hospital, because their condition makes it difficult to provide care safely by any other method. In some areas care is only given to these patients when obvious dental disease is present, whereas in other locations, patients will have a routine exam with x-rays under general anaesthetic as part of their oral care programme.

In some areas there is a relationship between the local CDS and the local hospital, and the CDS special care dentists go into the hospital to treat patients and have their own day case (zero-day length of stay) general anaesthetic list. But this arrangement does not exist everywhere.

Where patients require sedation in order to enable them to tolerate dental treatment, this is usually provided within the CDS or in the local hospital depending on the location. For a minority of these patients, usually for medical reasons, sedation should only be provided in a hospital setting.

Understanding the work of the Community Dental Service

The CDS is commissioned by NHS England to provide dental care to adults with special care needs and to children. The size of the contract will vary from region to region. We found that some trusts have a service level agreement (SLA) with the CDS to provide theatre facilities, staff and anaesthetists, and in some cases the CDS clinician has a contract of employment with the trust.

The SLAs appear to vary enormously in their robustness and governance arrangements. In some cases, the trusts were unsure of whether the activity carried out by the CDS was attributed to the trust and therefore recorded on HES or not.

⁷³ Office for National Statistics: *National Population Projections, 2018* <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2018based>

⁷⁴ *The Guide for Commissioning Special Care Dentistry*, page 20 <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-spec-care-dentistry.pdf>

We have not analysed CDS data further to assess this, and we have not been able to establish a clear picture on the local contractual arrangements for CDS. This situation needs to be clarified both from a contractual and governance viewpoint. It is possible that in some instances the commissioners are being charged twice for activity that is invoiced via the CDS and also via HES. This requires further investigation and guidance.

Identifying special care need in non-dental hospitals

Almost all SCD consultants work in dental hospitals. Special care dentistry is also provided in non-dental hospitals but as we only found one non-dental hospital with an SCD consultant, this work will largely be done by oral surgery or oral and maxillofacial (OMFS) or restorative dentistry clinicians.

Although there is a separate main specialty code (451) for SCD, we found there is no data recorded on HES under this specialty. Even if the code was used, it would not capture the work being done in non-dental hospitals because of the lack of SCD consultants mentioned above.

There is a treatment function code for SCD but it is unclear how this is used, as special care refers to the complexity of the patient, rather than the type of dentistry.

Knowing the patient's comorbidities – for example, whether they have learning disabilities, autism, medical or mental health issues – might help us get a clearer picture of activity, but these are not recorded for outpatients. Recording of comorbidities for dental inpatients also needs to be improved to help us understand this cohort of patients.

Furthermore, the SCD model of care means that multiple types of treatment occur within the same visit – for example restorative dentistry and oral surgery. The prices provided under the current codes do not reimburse these as separate treatments and therefore do not reflect the true level of care provided.

As a result of all these issues, we haven't been able to gain an accurate picture of how many patients with special care needs are treated in hospital and who is delivering the treatment. The commissioning standard for special care dentistry has identified the same issue, highlighting the importance of understanding special care dentistry provision to meet the demands of the population and changing demographics in the future.

The commissioning standard for special care dentistry

The commissioning guide highlights the need for more accurate recording of special care dentistry:

Variations in the current coding systems make it difficult to collect accurate data about patients accessing special care dentistry services. Special care dentistry patients, especially those managed under general anaesthetic, are often coded to other dental specialties – for example, oral surgery, restorative dentistry, or anaesthetic consultants making data unreliable. They are more likely to be coded to any of the other dental or anaesthetic consultants, particularly around GAs.

There needs to be consideration given to the establishment of specialty specific tariffs and use of the specialty code to identify specialist provision and complexity of procedure and patient. Any coding changes need to be consistent across both secondary and primary services. Coding and capture also need to improve within primary care to smooth the transition of shared care, episodic care and 'hand on hand off' interactions between special care dentistry and GDPs. Predicting declining or increasing dependency and preventing patients slipping through the net needs to be better communicated and formally agreed between primary care and special care dental services.

Variation in provision of shared care

Some special care patients would benefit from shared care arrangements between the CDS, hospitals and GDPs. We found these exist in very few areas. A key issue is that there is limited interoperability between primary and secondary care IT systems. Referral management systems do not allow GDPs to have fast track access to the CDS or hospitals for shared care patients when they need it. Instead, they have to make a new referral, so the benefits of shared care are lost.

These obstacles underline the need for a system change to support shared care of SCD patients as envisaged in the NHS

Long Term Plan, which talked about breaking down barriers between care organisations and teams to offer more differentiated support to individuals⁷⁵. NICE Guideline PH55⁷⁶ may be a useful reference point in developing plans for shared care. It looks at local partnership working to improve services for people, including those with special care needs, whose circumstances put them at risk of poor oral health and make it difficult for them to access dental services.

A stable workforce for SCD

SCD is a relatively new dental specialty formally recognised by the General Dental Council (GDC) in 2008 at which time many experienced clinicians were grandfathered on to the specialist list held by the GDC. Many of these specialists are due to retire in the near future and we understand that there are not enough training places in SCD to replace all of them. A shortage of specialists may therefore be apparent in the very near future, especially given the increasing demand we discussed at the top of this section and the need for more specialists in non-dental hospitals.

This pressure is increased by the fact that in the forthcoming commissioning round, each CDS contract for SCD will require three specialists including one consultant to ensure that relationships with other medical colleagues can be established.

The SCD specialist workforce will form part of the Advancing Dental Care (ADC) review discussed on page 30, which will consider the current and future dental needs of the ageing population. Consideration should be given to training interested and appropriately experienced GDPs so they can provide Level 2 services under the direction of a consultant in SCD to relieve pressure on hospitals.

Special care dentistry recommendations

Recommendation	Actions	Owners	Timescale
<i>Also see cross-specialty recommendations 1-9</i>			
19. Trusts should work with general dental practitioners and the Community Dental Service (CDS) to provide joined-up and co-ordinated dental care for children and people with special care needs, identifying and breaking down traditional barriers between settings as envisioned by NHS Long Term Plan.	a Develop a working group including Public Health England, NHS England, Health Education England, NHS Business Services Authority and specialist societies to: <ul style="list-style-type: none"> • Develop a clinically-led review of the CDS and the General Dental Service • Understand current barriers and how to break them down to enable shared care of special care patients • Explore different models of collaborative working between secondary care, general dental practitioners and the CDS, such as sharing advice by telephone or email on how to treat patients with medical complexity. 	NHSE and NHSI, specialist societies	For consideration following report publication
	b Put a plan in place for system change to support shared care arrangements.	NHSE and NHSI, specialist societies	Following completion of 19a

⁷⁵ NHS Long Term Plan 1.4 page 4

⁷⁶ See <https://www.nice.org.uk/guidance/ph55/>

Procurement

In 2016, NHS Improvement mandated all trusts to submit their monthly purchase order data to a central database: the NHS Spend Comparison Service (SCS). This is the first time a single national dataset of procurement information has been established for the NHS. Since that time, the GIRFT programme has been analysing this data to better understand the variation in products and brands used, and prices paid across NHS trusts. This analysis has been a feature of previous GIRFT reports with examples of variation in the number of brands used by clinicians.

It has been noted that the variation can lead to compromises in patient safety and can add significant costs to the NHS Supply Chain. Addressing variation therefore would have the potential to improve safety and efficacy and provide a potential opportunity to secure better deals and improved value for money for trusts.

Reducing unwarranted variation and improving value for money

To help, GIRFT has established a programme to root out unwarranted variation, improve the evidence-base to enable better decision-making, accelerate adoption of new proven technologies, and improve overall value for money by reducing supply chain costs. The GIRFT Clinical Technology Optimisation programme has been working with GIRFT clinical leads to examine the data and evidence that support products and, in some cases, national Clinical Technology Advisory Panels (CTAPs) have been established with leading clinicians from the specialty to address safety, efficacy, innovation and value – with the objective of providing better information to clinicians and procurement professionals across the NHS.

GIRFT has also been working with the new NHS operating model for NHS procurement, including the new Category Towers, to develop plans for helping trusts and clinicians to address variation and improve value for money.

Furthermore, an issue is knowing whether different brands have clinical impacts, and to assess that NHS England and NHS Improvement has launched 'Scan4Safety'⁷⁷ (2020) in which individual products can be traced to individual clinicians. We are looking at the feasibility of creating links between NCIP and Scan4Safety to assist in identifying the efficacy of different brands and, perhaps most importantly, to allow tracking of new implants or procedures across the NHS.

We recommend that providers adopt the GIRFT three-point strategy to improve procurement of devices and consumables.

Procurement recommendation

Recommendation	Actions	Owners	Timescale
20. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.	a Use sources of procurement data, such as the NHS Spend Comparison Service and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.	GIRFT	For progress within six months of publication
	b Identify opportunities for improved value for money, including the development of benchmarks and specifications. Locate sources of best practice and procurement excellence, identifying factors that lead to the most favourable procurement outcomes.	GIRFT	Concurrent to 20a
	c Use Category Towers to benchmark and evaluate products and seek to rationalise and aggregate demand with other trusts to secure lower prices and supply chain costs.	GIRFT, trusts, STPs	Concurrent to 20a and 20b

Reducing the impact of litigation

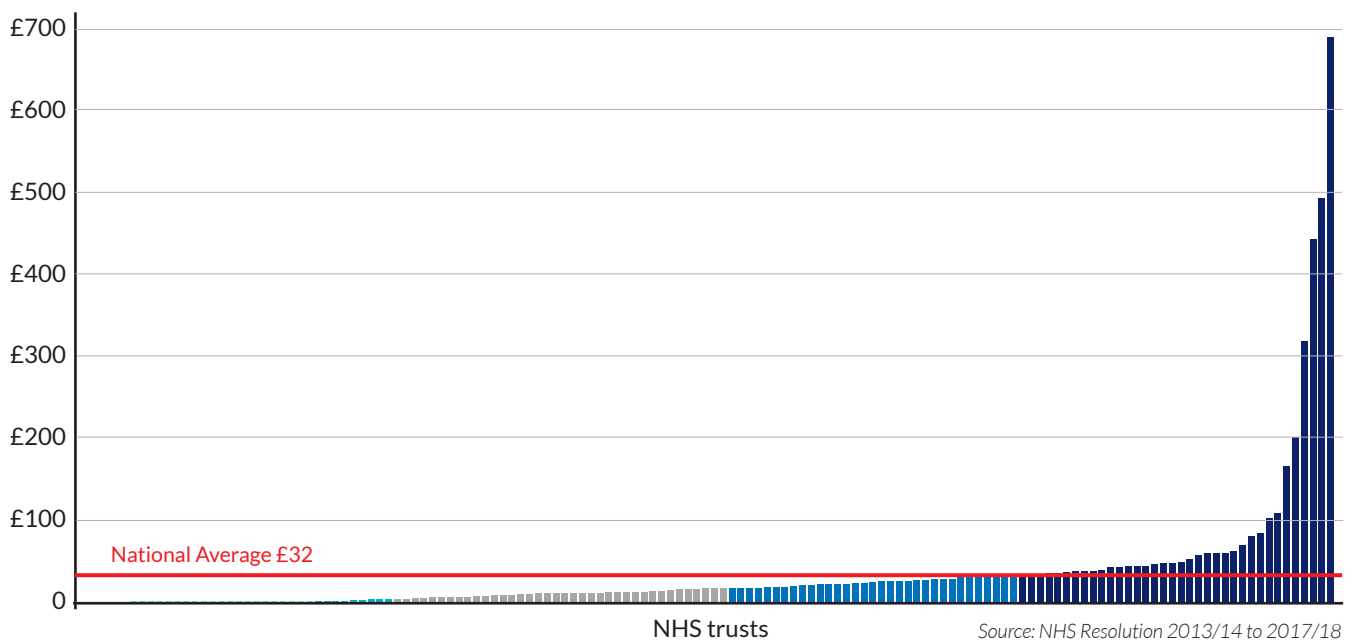
As well as looking at addressing variation in clinical practice, each of the GIRFT programme teams has been asked to examine the impact and causes of litigation in their field – with a view to reducing the frequency of litigation and more importantly reducing the incidents that lead to it. By doing this, we can help clinical staff learn lessons from claims, complaints, serious untoward incidents (SUIs) and patient safety incidents. This, in turn, will lead to improved patient care and a reduction in the cost of both the litigation and the management of resulting complications.

Due to the crossover in claims coding and activity coding between hospital dentistry and oral and maxillofacial surgery (OMFS), we have grouped the two specialties together to provide the most reliable and consistent approach.

Data from NHS Resolution shows that clinical negligence claims in hospital dentistry and oral and maxillofacial surgery were estimated to cost between £9.84m and £33.94m per year over the last five years. We found the average estimated cost of litigation per activity (admission or outpatient procedure) to be £32. There are vast differences between providers: the best performer is estimated to average £0, while at the other end of the scale, one provider is expected to generate an average of £692 of litigation costs per activity.

Figure 13: Variation between trusts in estimated litigation costs for hospital dentistry and oral maxillofacial surgery per admission or outpatient procedure.

(Activity denominator includes outpatient procedures or day case, elective and emergency admissions for hospital dentistry and oral and maxillofacial surgery, for patients of all ages.)



Overall, there has been a reduction in the volume of claims in recent years, although the cost of claims remains variable. The fact that costs have not followed the downward trend in claims volume is not surprising in the context of the global increase in costs across the NHS as a whole.

Similar to the already published GIRFT Oral and Maxillofacial Surgery national report, the most common causes for claims were: 'judgement/timing' (757 claims, 49%); 'unsatisfactory outcome to surgery' (237 claims, 15%); 'fail to warn/informed consent' (162 claims, 11%); 'interpretation of results/clinical picture' (125 claims, 8%); and 'Wrong Site Surgery' (58 claims, 4%).

It was clear during GIRFT visits that many providers had little knowledge of the claims against them. As a consequence, very few lessons have been learnt from the claims to inform future practice. Further work is needed at both a local and national level to analyse claims to maximise this opportunity to improve patient care.

Effective learning from claims allows good practice to be shared and has the potential to reduce claims and to ensure that resources are not unnecessarily diverted from front line care. Most importantly, this learning means more patients receive the right care first time with fewer failed or ineffective treatments, decreased length of stay, and fewer care packages needed by patients suffering complications.

Table 3: Volume and cost of medical negligence claims against hospital dentistry and oral maxillofacial surgery notified to NHS Resolution 2013/14 to 2017/18

Year	Number of claims	% change in claims number	Total cost (£m)	% change in total cost
2013/14	220		£9.84m	
2014/15	333	51%	£ 33.94m	245%
2015/16	239	-28%	£12.88m	-62%
2016/17	233	-3%	£10.01m	-22%
2017/18	208	-11%	£14.52m	45%
Total	1,233		£81.19 m	

Source data: NHS Resolution 2013/14 to 2017/18

Litigation recommendation

Recommendation	Actions	Owners	Timescale
21. Reduce litigation costs by application of the GIRFT Programme's five-point plan - see actions 21a-e.	a Clinicians and trust management to assess their benchmarked position compared to the national average when reviewing the estimated litigation cost per activity. Trusts would have received this information in the GIRFT litigation data pack.	Trusts	For immediate action
	b Clinicians and trust management to discuss with the legal department or claims handler the claims submitted to NHS Resolution included in the data set to confirm correct coding to that department. Inform NHS Resolution of any claims which are not coded correctly to the appropriate specialty via CNST.Helpline@resolution.nhs.uk	Trusts	Upon completion of 21a
	c Once claims have been verified clinicians and trust management to further review claims in detail including expert witness statements, panel firm reports and counsel advice as well as medical records to determine where patient care or documentation could be improved. If the legal department or claims handler needs additional assistance with this, each trusts panel firm should be able to provide support	Trusts	Upon completion of 21b

Recommendation	Actions	Owners	Timescale
<p>21. Continued Reduce litigation costs by application of the GIRFT Programme's five-point plan - see actions 21a-e.</p>	<p>d Claims should be triangulated with learning themes from complaints, inquests and serious untoward incidents (SUI)/serious incidents (SI)/patient safety incidents (PSI) and, where a claim has not already been reviewed as SUI/SI/PSI, we would recommend that this is carried out to ensure no opportunity for learning is missed. The findings from this learning should be shared with all front-line clinical staff in a structured format at departmental/directorate meetings (including MDT meetings, morbidity and mortality meetings where appropriate).</p>	Trusts	Upon completion of 21c
	<p>e Where trusts are outside the top quartile of trusts for litigation costs per activity GIRFT we will be asking national clinical leads and regional hubs to follow up and support trusts in the steps taken to learn from claims. They will also be able to share with trusts examples of good practice where it would be of benefit.</p>	Trusts	For continual action throughout GIRFT programme

Financial impacts and opportunities

This report sets out a series of ways to improve the quality of patient care and the delivery of NHS hospital dentistry services through measures such as stronger co-ordination with primary care services, more effective commissioning, more appropriate referrals and a co-ordinated approach to child oral health prevention.

When implemented, the recommendations will help reduce unwarranted variation and improve patient pathways and clinical outcomes – for example, reducing the number of times a child has to go to the hospital for an extraction.

This will, in turn, reduce the cost of some common procedures and pathways and free up resource for other purposes.

Gross notional financial opportunity

The gross notional financial opportunity could be between £6.33m and £12.24m a year. These figures provide a financial value for a wide range of efficiency opportunities, which may not be cash-releasing. The figures are based on a selection of metrics (shown in table 4) and provide an indication of what may be possible. The metrics do not represent a comprehensive set of all opportunities discussed in the report. Our analysis has focused on activity where the data allows reliable analysis, and so opportunities may be understated.

Please note that the gross notional financial opportunities put an estimated value on the resource associated with variation based on all providers achieving at least the average or best quartile performance.

Further opportunities

The opportunity values shown are for illustration only. Individual providers and clinicians should assess their own services to determine the unwarranted variation in their area and the associated opportunity. Their assessment will help them to prioritise the service changes that they wish to deliver. Individual providers may also have other opportunities that are not included here.

Table 4: Analysis of potential improvements and financial opportunities when recommendations are implemented, at standard and target levels

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
<p>All dental specialties - appropriate referral and triage. Some less complex procedures could be managed by GPs or a level 2 service (Recommendation 5)</p> <p>Opportunity = Reduce adult simple extractions carried out in hospital as outpatient or day case***</p> <p>Base data: HES April 18 - Mar 19.</p> <p>Dental and Non Dental Hospitals Cost estimated based on average cost of CDO7A - simple extraction 19 years and over (average OPROC and DC)</p>	<p><i>Clinical view</i></p> <p>5% reduction in OP adult simple extractions</p>	<p>3,240 simple extractions (adults)</p>	<p>£0.64m</p>	<p><i>Clinical view</i></p> <p>10% reduction in OP adult simple extractions</p>	<p>6,480 simple extractions (adults)</p>	<p>£1.27m</p>

Table 4: Analysis of potential improvements and financial opportunities when recommendations are implemented, at standard and target levels (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
<p>All dental specialties - GPs should refer to a GDP unless there are good clinical reasons why the patient needs to be treated in hospital (Recommendation 5)</p> <p>Opportunity = Reduce number of GP referred oral surgery hospital OP attendances***</p> <p>Base data: HES April 18 - Mar 19.</p>	National average			Best quartile		
<p>Dental Hospitals Cost estimated based on average OP cost of oral surgery first OP</p>	9.9% GP referred outpatients	6,700 OP attendances	£0.99m	7.4% GP referred outpatients	9,800 OP attendances	£1.45m
<p>Non-Dental Hospitals Cost estimated as above Note: Calculation is net of TMD OP attendances - analysis below (last in table)</p>	20.7% GP referred outpatients	11,600 OP attendances	£1.72m	16.2% GP referred outpatients	34,800 OP attendances	£5.16m
<p>All dental specialties - Reduction in overnight stays (Page 53 - overnight stays should be kept to a minimum, unless clinically necessary)</p> <p>Opportunity = Reduce overnight stays (non-dental hospitals)</p> <p>Base data: HES April 18 - Mar 19.</p>	National average			Best quartile		
<p>Non-Dental Hospitals Cost estimated based on difference between elective inpatient care and day case care for CDO7 HRGs</p>	4.8% elective overnight stays	2,300 bed days	£0.74m	0.6% elective overnight stays	5,300 ed days	£1.7m

Table 4: Analysis of potential improvements and financial opportunities when recommendations are implemented, at standard and target levels (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
<p>Reducing referrals and improved triage for temporomandibular disorder (TMD) (Recommendation 14)</p> <p>Opportunity = Reduction in TMD hospital OP attendances (non-dental hospitals)*** Base data: Hospital Dentistry questionnaire****</p> <p>Non-Dental Hospitals Cost estimated based on oral surgery first outpatient attendance</p>	Clinical view	15,100 OP attendances	£2.24m	Clinical view	17,900 OP attendances	£2.66m
Total**			£6.33m			£12.24m

* Activity opportunities are annual figures, generally based on one year of activity data.

** Unless otherwise stated, cost estimates are based on national average of 2017/18 reference costs, uplifted to 2020/21 pay and prices using tariff inflation. The gross financial impact is shown in this table. There will be some overlap with the financial implications calculated as part of the OMFS national report FIS that has not been taken into account

*** The gross financial impact shown in the table relates to secondary care only rather than NHS wide. It is assumed some of this activity would shift to primary care.

**** Not completed by all non-dental hospitals. The financial impact has been scaled up to account for trusts who did not respond

About the GIRFT programme

Getting It Right First Time (GIRFT) is a national programme designed to improve clinical care within the NHS. Funded by the Department of Health and Social Care and overseen by NHS England and NHS Improvement, it combines wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are currently being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment. While the gains for each patient or procedure may appear marginal, they can, when multiplied across an entire trust – and even more so across the NHS as a whole – deliver substantial cumulative benefits.

The programme was first conceived and developed by Professor Tim Briggs to review elective orthopaedic surgery and address a range of observed and undesirable variations in orthopaedics. In the 12 months after the pilot programme, it delivered an estimated £30m-£50m savings in orthopaedic care – predominantly through changes that reduced average length of stay and improved procurement.

The same model is now being applied in more than 40 different areas of medical practice. It consists of four key strands:

- a broad data gathering and analysis exercise, performed by health data analysts, which generates a detailed picture of current national practice, outcomes and other related factors;
- a series of discussions between clinical specialists and individual hospital trusts, which are based on the data – providing an unprecedented opportunity to examine individual trust behaviour and performance in the relevant area of practice, in the context of the national picture. This then enables the trust to understand where it is performing well and what it could do better – drawing on the input of senior clinicians;
- a final report, which draws on both the data analysis and the discussions with the hospital trusts to identify opportunities for NHS-wide improvement; and
- an implementation phase where the GIRFT team supports providers to deliver the improvements recommended after the clinical specialist visits.

The programme relies on engagement by NHS trusts and foundation trusts. At the outset of the programme, letters are sent from the GIRFT clinical lead for each area of practice to the chief executive, the medical director and the heads of service for the relevant specialty, of all NHS trusts and foundation trusts in England. This letter calls on the provider to engage with the programme, and to date providers have responded well to this call.

GIRFT and other improvement initiatives

The GIRFT programme is founded on using data to understand unexplained variation and provide an opportunity for standardisation and improvement.

It also reflects experience in the NHS and internationally accepted best practice that the most effective initiatives to improve quality, productivity and efficiency are clinically led. As well as support from the Department of Health and NHS England and NHS Improvement, it has the backing of Royal Colleges and professional associations.

GIRFT is the delivery vehicle for one of several recommendations made by Lord Carter in his February 2016 review of operational efficiency in acute trusts across England.

GIRFT has a significant and growing presence on the Model Hospital portal, with its data-rich approach providing the evidence for hospitals to benchmark against expected standards of service and efficiency. The programme will also work with a number of wider NHS programmes and initiatives which are seeking to improve standards while delivering savings and efficiencies, such as the Elective Care Transformation Programme, integrated care systems (ICSs), and sustainability and transformation partnerships (STPs). NICE guidance, which reflects evidence-based cost-effective care, is embedded within and throughout the report.

It also seeks to draw on, add to and promote best practice from relevant professional bodies.

Glossary

Alveolar

Surgery related to the part of the jaws that have teeth. Typical examples include surgery for impacted teeth, complex tooth extractions and cysts.

Bisphosphonates

A class of drugs that prevent the loss of bone density, used to treat osteoporosis and similar diseases. They are the most commonly prescribed drugs used to treat osteoporosis.

Category towers

The procurement function of the NHS Supply Chain operating model. The 11 category towers undertake clinical evaluation of products and run procurement processes.

www.supplychain.nhs.uk/sccl

CCST/post-CCST training

A Certificate of Completion of Specialist Training (CCST) is issued by the General Dental Council when trainees have completed an approved training programme in a specialty. Post-CCST training is further specialist training that may lead to consultant status.

Cleft lip and cleft palate

Conditions present from birth caused by problems during foetal development. A cleft lip is an opening in the upper lip that may extend into the nose. A cleft palate is an opening in the roof of the mouth.

Comorbidity

The simultaneous presence of two or more chronic (long-term) diseases or conditions in a patient.

Community Dental Service

Service provided in community settings offering dental care to children and adults with special care needs who are unable to access care from high street dentists.

Conscious sedation/inhalation sedation

Inhalation sedation is a light form of sedation breathed through a nosepiece, often used to help a child feel relaxed and accept treatment.

CQUIN

Commissioning for Quality and Innovation (CQUIN) is a commissioning framework that supports improvements in the quality of services and care by setting agreed goals and incentivising best practice.

Craniofacial

Relating to the bones of the skull and the face.

Data dictionary

A reference point for approved information standards to support health care activities within the NHS, giving common definitions and guidance for everyone recording data.

www.datadictionary.nhs.uk

Dual-qualified

Practitioners who are qualified in two or more specialties. Dual qualification for OMFS refers to primary qualification as a doctor and a dentist.

Exodontia

The branch of dental practice concerned with the extraction of teeth.

Hospital Episode Statistics

Data on all admissions, out-patient appointments and A&E attendances at NHS hospitals in England. The aim is to collect a detailed record for each 'episode' of admitted patient care commissioned by the NHS and delivered in England, by either an NHS hospital or the independent sector. HES data is used in calculating what hospitals are paid for the care they deliver.

Hub and spoke

A network arrangement between larger and smaller service providers in a geographic area. Hub and spoke networks can be either formal or informal:

- formal means there is a contractual agreement in place
- informal means there is a shared understanding of how the network will operate, but no contractual agreement.

Hypodontia

Congenital condition in which children are born with several missing teeth.

Implant

A surgical component that interfaces with the bone of the jaw or skull to support a dental prosthesis such as a crown, bridge, denture, or facial prosthesis.

Integrated Care Systems (ICS)

Advanced local partnerships involving primary and secondary care, local councils and others, taking shared responsibility to improve the health and care system for their local population.

www.england.nhs.uk/integratedcare/integrated-care-systems

Intravenous sedation

A sedative given directly into a vein to help patients relax and accept treatment.

Main specialty code

A unique code identifying each main specialty designated by Royal Colleges. It identifies the specialty of the health professional delivering the service.

MCN

A managed clinical network (MCN) involving clinicians from hospital teams, GPs, community-based providers, GPs where appropriate, and commissioners, working together in a co-ordinated way.

Mono-specialty

A single specialty with its own specialist list that is also grouped with other specialties within an area of medicine or dentistry.

Mucocele

Also known as a mucous cyst, a clear or bluish bump that can be found on the lips, floor or roof of the mouth, or tongue.

National Institute for Health and Care Excellence (NICE)

Provides evidence-based guidance, advice, quality standards, performance metrics and information services for health, public health and social care.

www.nice.org.uk

NHS Business Services Authority

A special health authority that provides a range of central services to NHS bodies, including administering payments to dentists.

OPCS codes

Also known as procedure codes, the OPCS Classification of Interventions and Procedures is a statistical classification used by health care providers and national and regional organisations to report/summarise episodes of care.

Operational delivery networks (ODNs)

Networks focused on co-ordinating patient pathways between providers over a wide area to ensure access to specialist resources and expertise.

Oral and maxillofacial surgery

The specialty focusing on the diagnosis and treatment of diseases affecting the mouth, jaws, face and neck, which requires a dual qualification in medicine and dentistry.

Orofacial pain

Pain experienced in the mouth, jaw or face.

Orthodontic therapist

A registered member of the dental team who assists orthodontists in carrying out orthodontic treatment and provides some aspects of the treatment themselves.

Orthognathic surgery

A specialist branch of oral and maxillofacial surgery, often part of orthodontic treatment, which involves the modification of the jaws in order to change their alignment and position to improve both the function and appearance of the mouth.

Personal Child Health Record

Also known as the PCHR or 'red book', a national standard health and development record given to parents/carers at a child's birth and used to record a child's weight and height, vaccinations and other important information.

Pre-anaesthetic assessment

A medical check-up done by an anaesthesia provider or a registered nurse before an operation, to assess the patient's physical condition and any other medical problems or diseases.

Procedure code

(see OPCS codes)

Purchase Price Index and Benchmarking data tool (PPIB)

A system to collect procurement data from NHS trusts that enables trusts to compare and benchmark data and spend.

SCD

Special care dentistry is concerned with the improvement of the oral health of adult individuals or groups in society who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability.

SNOMED

SNOMED CT is the clinical vocabulary which is used to record consistent, reliable and comprehensive patient information as an integral part of an electronic patient record, facilitating a number of processes such as decision support, care pathway management and drug alerts. The Department of Health and Social Care has approved SNOMED CT as the single terminology of choice for health and care in England.

Specialist list/specialist register

Lists of registered dentists who meet certain conditions and are entitled to use a specialist title.

Staff and associate specialist (SAS) grades

Non-consultant specialty doctors working in hospitals with at least four years of postgraduate training.

Tariffs

The NHS prices and payment rules agreed each year that commissioners and providers of NHS care must follow to provide best value to their patients.

Temporomandibular disorders

A range of conditions affecting the movement of the jaw with symptoms such as pain around the jaw, ear and temple.

Trigeminal neuralgia

A sudden, severe facial pain that usually happens in short, unpredictable attacks.

Units of dental activity

The method of measuring dentists' activity, based on individual procedures rather than whole treatments, under the dental contract introduced in 2006.

Zero-day length of stay

An admission that does not require an overnight stay in hospital.

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For more information about GIRFT,
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The full report and executive summary are also available to download as
PDFs from: www.GettingItRightFirstTime.co.uk