

G I R F T

GETTING IT RIGHT FIRST TIME

Oral and Maxillofacial Surgery

GIRFT Programme National Specialty Report

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GIRFT clinical lead for Oral and Maxillofacial Surgery

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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 oral and maxillofacial surgery by Maire Morton.

Maire's report brings the GIRFT approach to her own clinical specialty, combining a data-led view of outcomes and costs with real insight into what is and is not working. I firmly believe that, with the support of clinicians and managers, it can lead to the redesign of services to improve care and patient outcomes – as well as saving the NHS millions of pounds.

GIRFT and the other Carter programmes are already demonstrating that transforming provider services and investing to save can bring huge gains in stabilising trusts financially and improving care for patients.

The programme began following my review of orthopaedic surgery in 2012. That review was driven by a desire to ensure better care and outcomes for patients and to fix the issues faced by colleagues in my own specialty. With a small team, we visited over 200 sites, meeting more than 2,000 surgeons, clinicians, support staff and trust managers. Almost everyone acknowledged that the NHS must review all unwarranted variation in the quality and efficiency of the services we deliver.

Together we set out to understand the impact of that variation by reviewing data, discussing challenges and debating solutions. At the end of the process we were able to make evidence-based recommendations and to share the good practice we found. Today, with the support of my fellow clinicians and the British Orthopaedic Association, those recommendations are helping to improve care and patient outcomes, as well as saving the NHS millions of pounds.

That support is crucial. GIRFT cannot succeed without the backing of clinicians, managers and all of us involved in delivering care. So I am most heartened to hear how supportive people have been as Maire has been carrying out her review.

My greatest hope is that GIRFT will provide further impetus for all those involved in the delivery of oral and maxillofacial surgery to work together, shoulder to shoulder, to create solutions and improvements that have appeared out of reach for too long.



GIRFT Programme Chair and NHS Improvement's National Director for Clinical Quality and Efficiency

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 for Clinical Quality and Efficiency, at NHS Improvement.

Professor Tim Briggs CBE

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Introduction from Maire Morton

GIRFT National Clinical Lead for Oral and Maxillofacial Surgery

I was delighted to join the GIRFT programme to lead the oral and maxillofacial project.

Our review has shone a light onto the specialty and allowed us to discuss the difficult issues that underlie variation in care pathways in oral and maxillofacial surgery, some of which add cost while adding no value to the individual patient.

During my GIRFT visits, I have met many clinicians and managers. All were welcoming and interested in the data we presented. Indeed, for many it was the first time they had seen their own data. Data and its quality are key issues we explore further in the report. All surgeons wish to deliver the best care for their patients, but without accurate and comprehensive data they cannot improve their service.

We have kept the British Association of Oral and Maxillofacial Surgery (BAOMS) fully informed of the work we're doing at each stage of our review. I am grateful to BAOMS for their totally supportive approach and delighted that their current president, Mr Ian Martin, has committed to and invested in a project to develop measurable clinical quality outcomes across the specialty.

I am excited to put forward the recommendations in this report. I hope that the GIRFT project in oral and maxillofacial surgery and the interest it has engendered in the specialty will further promote our ability to deliver the best outcomes for our patients.



Maire Morton is a consultant oral and maxillofacial surgeon with special interests in surgery for facial deformity, maxillofacial trauma and medical leadership.

Maire qualified from Guy's Hospital, London and currently works at East Lancashire Hospitals NHS Trust, where she is also Divisional Director of Surgery and Anaesthetics.

She was previously a member of the North West Cleft Lip and Palate Team, is a former president of the British Association of Oral and Maxillofacial Surgeons (BAOMS), and is chair of the examination board for the Specialty Membership in Oral Surgery.

Maire Morton FDSRCS

BAOMS would like to thank Maire Morton and the GIRFT team for the enormous amount of work behind this report.

We are pleased to see the importance the report has placed on the improvement of data quality and data collection. BAOMS has been working to have the specialty of OMFS correctly coded and we are encouraged by the prominence to coding and specialty attribution given within the report.

It is crucial that oral and maxillofacial surgeons have access to good quality and timely data to deliver high-quality, patient-focused services and we are pleased to see there is a series of recommendations to support this.

Prospective data is at the core of the pilot project the Oral and Maxillofacial Surgeons Quality Outcomes in Oral and Maxillofacial Surgery (QOMS) (recommendation 5), which was my presidential initiative. We have already seen an excellent response from the specialty across all sub-specialty areas. By linking these audit projects to Hospital Episode Statistics (HES) and Office of National Statistics (ONS) we can reduce duplication of data entry and generate quality outcome information to measure what matters.

One of the most pleasing aspects of this report is that it has highlighted the volume of dentoalveolar surgery in secondary care that may not always be appropriate. We are pleased that the report has outlined steps (recommendation 6) to help ensure this surgery takes place in the appropriate setting and BAOMS will work closely with NHS England and GIRFT to help achieve this.

Furthermore, as outlined, the Managed Clinical Networks (MCNs) with OMFS representation are central to enabling an integrated dentoalveolar surgery pathway which is best for patients.

We will continue to work with GIRFT during the implementation phase, sharing examples of work taking place (including the devolved administrations) and the experiences from our members, to support the realisation of all 15 recommendations outlined in this report.



Ian Martin
BAOMS President

Recommendations

We have organised our recommendations into six themes.

Details of owners and timelines for each recommendation are given in the body of the report.

Theme 1: Data quality and data collection

- 1** Improve attribution to main specialty to ensure coded in accordance with the NHS Data Dictionary.
 - 1a** Ensure that all work under the responsibility of consultant oral and maxillofacial surgeons is consistently attributed to their main oral and maxillofacial specialty in accordance with the NHS Data Dictionary.
 - 1b** Where a consultant oral surgeon carries out oral surgery in an oral and maxillofacial unit, ensure that their work is attributed to their main oral surgery specialty in accordance with the NHS Data Dictionary.
 - 1c** GIRFT to investigate options to measure or estimate the amount of activity performed by non-consultant career grade staff under consultant supervision in all surgical specialties.
- 2** Improve clinical coding, particularly for difficult-to-code areas, such as head and neck cancer.
 - 2a** Liaise with key stakeholders to develop a short guide to clinical coding for clinicians and coders that would support best practice.
 - 2b** Offer specialty-specific coder training.
 - 2c** Ensure that surgeons have easy access to their own data and are able to understand and interpret it.
 - 2d** Ensure that surgeons, trust information teams and coders meet regularly to review activity attributed to the surgeons.
- 3** Produce a clear definition of an out-patient procedure for data collection purposes.
 - 3a** Agree the out-patient definition.
 - 3b** Establish which oral and maxillofacial out-patient procedures meet the definition.
- 4** Improve the recording of workforce and HR data to support workforce planning.
 - 4a** Review and take actions to improve recording attribution of area of work in ESR.
 - 4b** Investigate how national locum expenditure can be recorded by specialty.
- 5** Deliver an efficient and patient-focused outcomes audit programme for oral and maxillofacial surgery.
 - 5a** Establish how to use real-time data, reduce the duplication of data collection supported by trusts and support continuous improvement.
 - 5b** Develop and evaluate a Quality Outcomes in OMFS (QOMS) pilot.
 - 5c** Review the National Head and Neck Cancer Audit (HANA) with the other relevant specialties.

Theme 2: Performing dentoalveolar surgery in an appropriate setting.

- 6** Take steps to ensure that dentoalveolar surgery takes place in the appropriate setting.
 - 6a** Ensure correct coding of:
 - the type of anaesthetic used
 - the presence of an anaesthetist
 - the presence of any co-morbidities.
 - 6b** Use the coding and comorbidities data to assess what proportion of dentoalveolar surgery could be carried out in the different settings.
 - 6c** Explore the potential impact of moving a proportion of dentoalveolar work out of secondary care and the functionality of the different settings available locally to support an integrated care pathway across both the elective and non-elective elements. This is to include planning and contractual requirements.
 - 6d** Based on the findings from 6b, 6c and examples of good practice, produce a plan to enable the development, implementation and continuous improvement of an integrated pathway for dentoalveolar surgery.

Theme 3: Improving efficiency by organising care through networks

- 7** Deliver oral and maxillofacial surgery through local networks, such as hub and spoke models, to optimise quality and efficiency.
 - 7a** Develop guidance based on existing best practice examples to support the development of a service specification for local network reconfiguration. The guidance should cover the full oral and maxillofacial workload. We expect the specification would be a minimum volume of approximately 300 non-elective admissions per year (representing around one admission per day). It should also support contract, operational and geographical considerations.
 - 7b** Support NHS England on the development and implementation of the revised head and neck cancer service specification.
- 8** Ensure equal access to orthognathic treatment across England.
 - 8a** Review local access to orthognathic surgery.
 - 8b** Review the outcomes of the London and south-east commissioning guidance and approval process pilot.
 - 8c** Develop plan based on 8a and 8b.
- 9** Review how best to deliver maxillofacial laboratory services and technical services, taking changing needs, technologies, and practices into account.
 - 9a** Undertake a separate dedicated review of maxillofacial laboratories and technological support. The report should include recommendations and actions.
- 10** Explore how the number and types of non-surgical out-patient appointments can be reviewed.
 - 10a** Understand if there are diagnostic codes that can be used to help record non-surgical out-patient appointments, and what the implications of introducing these may be.
 - 10b** Introduce codes (depending on finding of 10a).

Theme 4: Optimising the secondary care pathway

- 11** Improve understanding of follow-up rates and take action accordingly to reduce unwarranted variation.
 - 11a** Audit causes of current local follow-up rates.
 - 11b** Ensure robust follow-up protocols are in place in all clinical areas to address unwarranted variation in local follow-up rates.
 - 11c** Establish ongoing local audits to check that the new protocol is followed and action taken accordingly.
- 12** Improve theatre utilisation and use of day case for emergency care in order to reduce length of stay for non-elective patients.
 - 12a** Add national reporting of time to theatre for non-elective oral and maxillofacial patients once they are fit for surgery to the theatre dashboard.
 - 12b** Review variation in time to theatre and set a best practice target.
 - 12c** Align with the development of the local networks (recommendation 7). Develop:
 - specialty-specific emergency lists in larger units
 - dedicated time in the general emergency theatre in smaller units.
 - 12d** Explore the feasibility of including oral and maxillofacial trauma procedures in the British Association of Day Surgery data directory.
- 13** Improve understanding of readmission rates and take action accordingly to reduce unwarranted variation.
 - 13a** Audit causes of current local readmission rates.
 - 13b** Develop an action plan and ensure a robust standard protocol is in place.
 - 13c** Establish ongoing local audits to check that the new protocol is followed and take action accordingly.

Theme 5: Litigation

- 14** Implement GIRFT 5 point plan for reducing litigation costs.
 - 14a** Assess benchmarked position for estimated litigation cost per unit of activity compared to the national average.
 - 14b** Review claims submitted to NHS Resolution to confirm correct coding. Inform NHS Resolution of any claims that are not coded correctly at CNST.Helpline@resolution.nhs.uk
 - 14c** Review claims in detail, including expert witness statements, panel firm reports, counsel advice and medical records, to determine where patient care or documentation could be improved.
 - 14d** Triangulate claims with learning themes from complaints, inquests and serious untoward incidents (SUI). If a claim has not already been reviewed as an SUI, we recommend that this is done to ensure no opportunity for learning is missed.
 - 14e** Where trusts are outside the top quartile of trusts for litigation costs per activity, GIRFT national clinical leads and regional hub directors will support them in learning from claims, including sharing examples of good practice.

Theme 6: Procurement

- 15** Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.
 - 15a** Use sources of procurement data, such as Purchase Price Index and Benchmarking tool (PPIB) and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.
 - 15b** 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.
 - 15c** 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.

Executive summary

Our GIRFT review of oral and maxillofacial surgery identifies significant opportunities to improve patient care and outcomes alongside a total notional financial opportunity of up to £25m per year.

We have found a significant degree of unwarranted variation in a number of key areas. To help realise the opportunities available across the specialty, this report identifies where better quality of data is required to explore the variation further, examples of good practice and our recommendations.

Getting It Right First Time (GIRFT)

The GIRFT programme is funded by the Department of Health and Social Care and jointly overseen by NHS Improvement and the Royal National Orthopaedic Hospital NHS Trust.

GIRFT seeks to identify variation within NHS care and then learn from that variation. It is one of several workstreams designed to improve operational efficiency in NHS hospitals. In particular, it is part of the response to Lord Carter's review of productivity, and is providing vital input to the Model Hospital project.

GIRFT is closely aligned with other programmes seeking to improve standards while delivering efficiencies, such as NHS RightCare, acute care collaborations (ACCs) and sustainability and transformation partnerships (STPs)/integrated care systems.

Under the GIRFT programme, data from many NHS sources is consolidated and analysed to provide a detailed national picture of the specialty being reviewed. This process highlights variations in care decisions, patient outcomes, costs and other factors. The data is reviewed by a GIRFT clinical lead for the specialty – an experienced clinician who is recognised as an expert in their specialty.

The clinical lead visits each individual hospital trust to discuss the data with senior management and clinical teams. These 'deep dive' visits provide an opportunity for both parties to learn. The individual trusts are able to understand where their performance appears to be below average and can draw on clinical expertise to identify actions targeted at addressing performance issues. At the same time, the clinical lead builds a national picture of best practice that feeds into service-wide improvement recommendations and an implementation programme to drive change and address unwarranted variation.

Oral and maxillofacial surgery

Oral and maxillofacial surgeons treat the bony and soft tissue conditions of the head and neck, including the jaws, oral tissues and teeth. The work ranges from relatively simple dentoalveolar surgery to long and complex surgery for head and neck cancer, facial deformity and pathologies of the face, mouth and jaws.

Oral and maxillofacial trauma is a significant part of the workload.

About our analysis

We have looked at variation in care pathways, some of which add cost while adding no value to the individual patient, such as long waits to access emergency theatres.

Clinical workstreams

Our review focuses on the following clinical workstreams:

- emergency care and trauma
- head and neck cancer
- facial skin cancer
- dentoalveolar surgery
- orthognathic surgery.

Our review does not consider clinical services in the following areas:

- salivary gland disease
- thyroid disease
- temporomandibular joint disease.

What we found

We found unwarranted variation in clinical practice and clinical outcomes between oral and maxillofacial units. Six overarching themes emerged.

Theme 1: Data quality and data collection

Our review uses the quality outcome measures collected through Hospital Episode Statistics (HES), such as readmissions. However, we found a lack of consistency in coding, which makes analysis problematic.

We found that oral and maxillofacial surgery does not have systematic clinical outcome measures in place. This limits opportunities:

- to understand if the specialty is being delivered in line with standards (such as those issued by NICE)
- for providers to benchmark themselves against others
- to support continuous improvement.

Models for measuring and collecting data on health outcomes are generally underdeveloped across Europe¹. NICE offers guidance on best practice, but it is not always possible to measure the uptake of that best practice. An example of this issue is in sentinel node biopsy² in early oral cancers. We set out to include data for this procedure in the data pack, but found that no episodes were identified, even though we know that some units offer the procedure. This suggests a lack of clarity around coding this new procedure.

As a result of our findings, a key focus of our report is on improving data quality and data collection to help ensure consistent coding and the availability of accurate data to support service improvements, including workforce planning.

We make recommendations on the urgent need to address coding issues. In response to our findings, BAOMS has already initiated the Oral and Maxillofacial Surgeon Quality Outcomes in Oral and Maxillofacial Surgery (QOMS) project.

Theme 2: Performing dentoalveolar surgery in an appropriate setting

Many oral and maxillofacial units are carrying out high volumes of dentoalveolar surgery. We believe the volumes are so high that resources are not being used optimally and that a significant proportion of dentoalveolar surgery could be carried out in a more appropriate setting.

A number of complex issues³ are pushing patients towards secondary care. These include patients not accessing primary care dentistry frequently enough (possibly due to cost⁴ and anxiety⁵), leading to patients being referred directly to secondary care by their GP.

Depending on the level of treatment complexity⁶, the type of anaesthetic required and whether there are any comorbidities, a higher proportion of dentoalveolar surgery could be done as a level 2 (intermediate care) procedure. However, during our deep dive visits, a number of units expressed the opinion that the current provision of level 2 intermediate services could be improved. A number of issues were raised, predominately around staffing and service set up.

We have been unable to explore the appropriateness of setting fully as codes for type of anaesthesia are generally not used and comorbidity codes are not used consistently.

Theme 3: Improving efficiency by organising care through networks

Oral and maxillofacial is a relatively small specialty. As the nature of the surgery has developed and junior training has evolved, most units have come together to work across trusts.

¹ *Enhancing value in European health systems: The role of outcomes measurement, Consensus document*
<http://www.eu-patient.eu/globalassets/policy/patientsafety/value-of-health-consensus-document.pdf>

² *NICE Quality statement 3 (developmental) Sentinel lymph node biopsy*
<https://www.nice.org.uk/guidance/QS146/chapter/Quality-statement-3-developmental-Sentinel-lymph-node-biopsy>

³ *An evaluation of a referral management and triage system for oral surgery referrals from primary care dentists: a mixed-methods study, Goldthorpe, Walsh, Tickle, Birch, Hill, Sanders, Coulthard, and Pretty, Health Services and Delivery Research Vol. 6 (8), Feb 2018*

⁴ *Cost and anxiety are barriers to dental care. In 26% of patients, treatment is affected by cost. 12% of patients had MDAS scores of 19 or more, indicating extreme dental anxiety, while 36% had scores of 10 to 18, indicating moderate dental anxiety. Theme 8: Access and barriers to care – a report from the Adult Dental Health Survey 2009.*

⁵ *7% of the population never attend a dentist and 12% only when in pain. Public perceptions of choice in UK dental care: findings from a national survey. BDA, October 2012.*

⁶ *Guide for commissioning oral surgery and oral medicine, NHS England, 2015*
<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-oral.pdf>

One of the big drivers for change was the need to centralise head and neck cancer services. This move started with the Calman-Hine report in 1995⁷, was subsequently reinforced by the NHS cancer plan in 2000⁸ and then again by the NICE head and neck improving outcomes guidance (IOG) in 2004⁹. A report in 2014 showed a reduction in the number of units offering head and neck cancer services¹⁰.

Some of the bigger units now sit at the centre of fairly extensive hub and spoke systems (local networks). I believe that continuing this process, while ensuring there is effective embedded governance, is the way forward for our speciality.

We found regional variation in volumes of orthognathic treatment across England that suggests a picture of inequitable access to treatment. We recommend that local access to orthognathic surgery is further explored. The development of local networks may help to improve access where units currently carry out only a small volume of orthognathic surgery.

Theme 4: Optimising the secondary care pathway

There are opportunities to release capacity and optimise the secondary care pathway by reducing unwarranted variation through agreed best practice in follow-up to new outpatient attendances, non-elective workflow and readmission rates.

There is a wide variation in the follow-up to new ratio between providers that is not wholly a result of casemix. As units undertaking more complex surgery don't necessarily have higher follow-up to new ratios, the variation must be influenced by process and decision-making factors.

Generally oral and maxillofacial non-elective work should not require a long pre-operative stay: cases either need to go to theatre quickly or can be added to a planned list. However the data and deep dive feedback highlighted variation in lengths of stay and the management of non-elective cases. We have recommended the need to improve theatre utilisation and use of day case for emergency care in order to reduce length of stay for non-elective patients.

We found high levels of variation in readmission rates. When we explored this with units, they were generally unaware that their rates were high and were unable to explain why this was the case. It is essential that each unit understands its readmission rates and takes action to reduce any unwarranted variation.

Theme 5: Litigation

We found wide variation in the levels of litigation experienced by different trusts.

There has been an overall increase in volume and estimated costs of claims over the five-year period from 2012/13 to 2016/17. More encouragingly, the last two years have started to see a fall. The report recommends that providers employ GIRFT's 5 point plan to help reduce litigation costs.

Due to the crossover in claims between hospital dentistry and oral and maxillofacial surgery, we grouped these together when looking at litigation.

Theme 6: Procurement

We found wide variation in some areas of procurement, including prices paid and products used.

Over the coming months, the GIRFT team will be working with trusts to understand more about the variation in procurement costs in oral and maxillofacial surgery and other specialties in order to make specific recommendations.

Making it happen

The report makes 15 recommendations along with indicative timelines.

GIRFT regional hub support

GIRFT regional hubs can support providers in implementing the recommendations.

The hubs provide practical advice based on the research data, feedback from visits and expert input of experienced clinicians.

⁷ A policy framework for commissioning cancer services: A report by the Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales (Calman Hine report), The Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales, April 1995

http://webarchive.nationalarchives.gov.uk/20080817211349/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4071083

⁸ The NHS Cancer plan, Department of Health, 2000

http://webarchive.nationalarchives.gov.uk/+http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4009609

⁹ Improving Outcomes in Head and Neck Cancers – The Manual, National Institute for Clinical Excellence (NICE), 2004.

¹⁰ The impact of head and neck cancer service guidance on surgical workload, Price, Roche and Wright, Bulletin of the RCS England, Oct 2014.

Oral and maxillofacial surgery today

Oral and maxillofacial surgeons treat the bony and soft tissue conditions of the head and neck, including the jaws, oral tissues and teeth. The work ranges from relatively simple dentoalveolar surgery to major complex surgery of the head and neck.

Sub-specialisation has evolved in the areas of head and neck cancer, facial skin cancer, maxillofacial trauma, facial deformity, orthognathic surgery and temporomandibular joint disease. Oral and maxillofacial surgeons – as well as a number of other specialties – also carry out surgical treatment of salivary gland disease and thyroid disease.

Skills and expertise

Oral and maxillofacial surgery is a relatively new surgical specialty. Its background can be traced back to the foundation of the NHS and the appointment of hospital dentists. Over time, the role of the hospital dentist evolved to more complex surgery related to the head and neck – especially in the area of oral and maxillofacial trauma – and the specialty of oral and maxillofacial surgery and appropriate training were born.

Recognition as a surgical specialty

Subsequently, the possession of a medical degree became more common and the need for more formalised surgical training became clear. In the mid-1980s the profession voted to make possession of a medical degree mandatory for consultant appointment.

In 1994 oral and maxillofacial surgery formally joined existing surgical specialties.

Dual degree

Oral and maxillofacial surgery is now a dual degree specialty. In accordance with Article 8(3)(b) of the European Specialist Medical Qualification Order 1995, a doctor must be both a registered medical practitioner and have a fully registerable dental qualification in order to be on the specialist register for oral and maxillofacial surgery. The register is kept by the General Medical Council (GMC).

Oral surgery

Oral Surgery is a separate dental-based specialty, with a specialist list held by the General Dental Council and a completely separate training pathway.

There is a separate GIRFT project looking at hospital-based dental specialties, including oral surgery.

Oral and maxillofacial workstreams

The review covers the following workstreams:

Emergency care and trauma

Emergency care and trauma includes all non-elective admissions. Most oral and maxillofacial surgeons practice treatment of oral and maxillofacial trauma.

Some units are co-located with trauma centres, which results in an increase in the complexity of the work seen at those units.

In addition to admitted patients, all units see, treat and discharge a number of emergency patients without admitting them.

Head and neck cancer

Head and neck cancer services are a specific area of sub-specialisation. Many units run centralised services to enable adequate peer review and multidisciplinary working.

The development of this approach is ongoing (especially in London), which presented some challenges for our data collection.

Head and neck cancer units always have oral and maxillofacial surgeons working alongside ear, nose and throat (ENT) surgeons. We did not come across any models where these specialties are run on split sites.

Facial skin cancer

Facial skin cancer is an increasing area of work and sub-specialisation for a number of oral and maxillofacial units.

- Melanoma skin cancer incidence has increased by 128% in the UK between 1993-1995 and 2013-2015.¹¹
- Non-melanoma skin cancers (NMSC) are very common. Figures for NMSC are underestimated as there is limited registry, with only the first basal cell carcinoma (BCC) or squamous cell carcinoma (SCC) registered.
- However the National Cancer Registration Analysis Service¹² suggests a 30% increase in registered NMSC 2000-2010.
- 80% of NMSCs occur in the head and neck.

Several specialities treat facial skin cancer, with plastic surgery, dermatology and ENT joining oral and maxillofacial units as the main providers.

Dentoalveolar surgery

Dentoalveolar surgery involves work with the dentition where heightened complexity, either surgical or in terms of co-morbidities, places the procedure outside the remit of primary care dentistry.

The dentoalveolar component is often the largest workload for units in terms of the number of procedures undertaken.

Orthognathic surgery

Orthognathic surgery is surgical correction of the jaws for reasons related to dental anomalies, facial growth anomalies or sleep apnoea.

The review does not consider clinical services in the following areas:

Salivary gland disease and thyroid disease

Oral and maxillofacial surgery is one of several specialties to treat salivary gland disease and thyroid disease.

For this reason, we chose not to include these conditions in our review. Areas of practice that are common to a number of specialties should be reviewed by a cross-specialty group as there may well be specialty related variation.

Temporomandibular joint disease

Temporomandibular joint disease is the group of conditions related to the joint between the skull and lower jaw.

Treatment of temporomandibular joint disease has a large out-patient component. Since out-patient coding is not utilised, it was difficult to review this with any certainty.

The clinical setting for oral and maxillofacial services

We know from our deep-dive visits that a significant proportion of oral and maxillofacial work is undertaken in out-patient and day-patient settings. However, major oral and maxillofacial surgery requires access to beds, including intensive care and high dependency beds.

¹¹ Cancer Statistics for the UK, Cancer Research UK. www.cancerresearchuk.org/health-professional/cancer-statistics-for-the-uk

¹² National Cancer Registration and Analysis Service (NCRAS)
<https://www.gov.uk/guidance/national-cancer-registration-and-analysis-service-ncras>
http://www.ncin.org.uk/cancer_type_and_topic_specific_work/cancer_type_specific_work/skin_cancer/skin_cancer_hub/skin_cancer_factsheets_and_resources

Types of surgery and unit organisation

There is no such thing as a 'typical' oral and maxillofacial unit. The variety of set-ups to be found across the specialty is due to the range of clinical work undertaken. Centralisation of certain aspects of work means that not all units offer all services.

Figure 1 and Figure 2 provide an insight into the varying unit size, profile of work undertaken, and caseload.

Figure 1: Number of procedures under the care of an oral surgeon or oral and maxillofacial surgeon
Includes in-patient, day-patient and out-patient procedures.

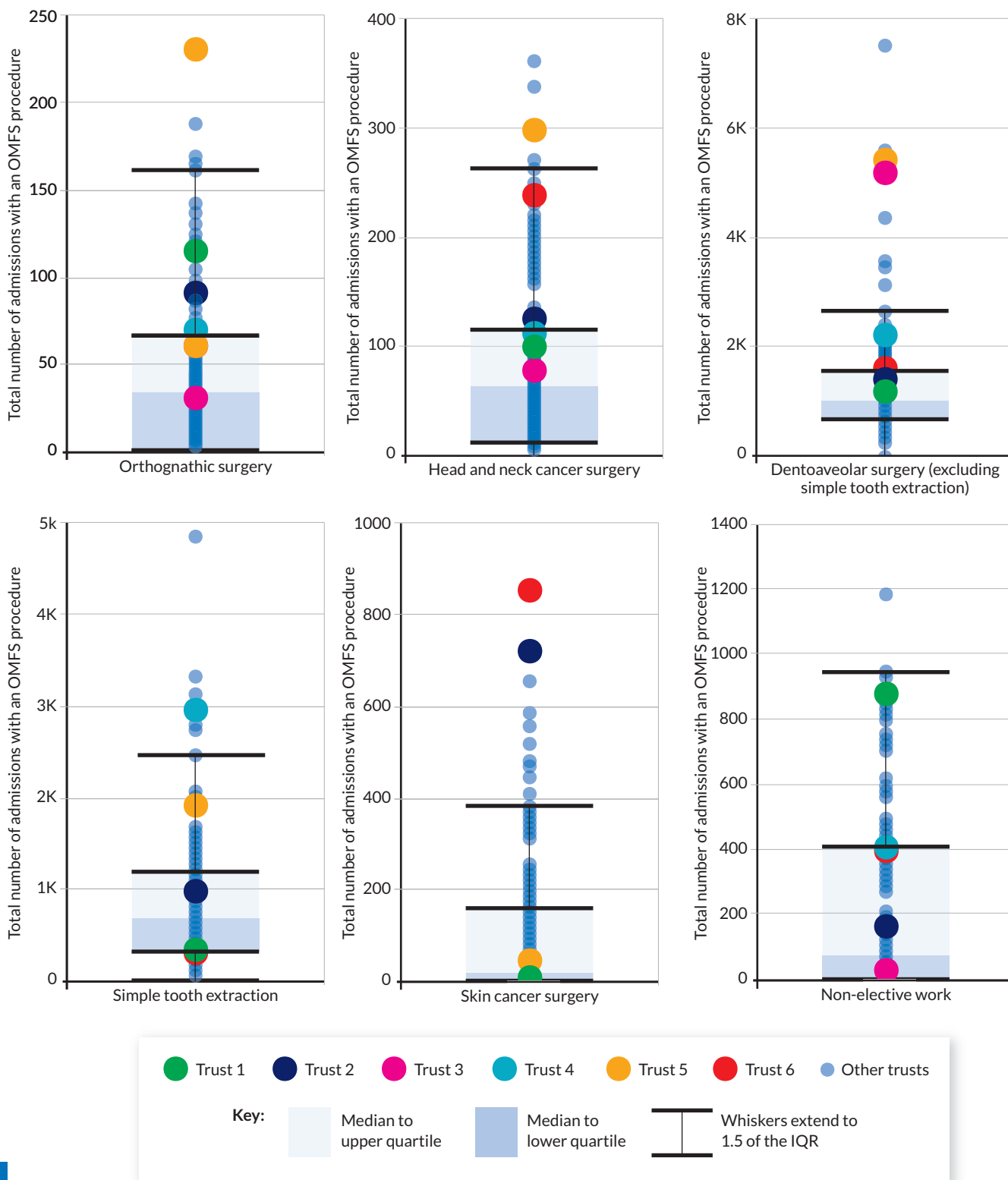


Figure 1 shows the picture across the main workstreams and highlights six example trusts to show how the type and volume of work undertaken by oral and maxillofacial units varies from unit to unit.

Overview of types of surgery

- **Orthognathic surgery** has an interquartile range of 0-66, with almost all units undertaking between 0 and 187 procedures.

- **Head and neck cancer** resembles orthognathic surgery in activity variation, with a slightly broader spread in caseload and a handful of outliers located just above the upper statistical boundary.

Figure 6 later in the report suggests a picture of centralisation in head and neck care, with relatively few units carrying out this work. The number of units shown in Figure 2 is therefore difficult to explain. With diagnosis often made in peripheral units, it could be that the diagnosis is being applied to minor procedures, such as biopsy, that are carried out before onward referral to a head and neck cancer unit.

- **Non-elective work** shows a different pattern: the interquartile range for in-patient trauma procedures is 0-400, with a spread of units handling up to 1,000 cases per year and a single outlier handling 1,200.

The median is low, reflecting the fact that not all trusts undertake trauma work.

- **Dentoalveolar** activity includes a high volume of simple tooth extractions, so we look separately at:

- **Dentoalveolar activity excluding simple tooth extractions** shows that most trusts undertake between 700 and 1,500 procedures in a year.

There is a small interquartile range, with several outlying, high-activity providers that undertake between 5,000 and 7,500 procedures per year.

- **Simple tooth extractions** shows a median number of procedures of about 600 per year, with an IQR of 300 to 1,200. Half a dozen providers are high-activity outliers, undertaking more than 2,500 procedures. The largest provider undertakes just under 5,000 simple tooth extractions per year.

Data includes a number of dental teaching hospitals where the number of dentoalveolar procedures, especially simple extractions, are likely to be high.

- **Skin cancer surgery** shows a fairly similar distribution to head and neck cancer, with an interquartile range of 0-160 cases per year. Many trusts are high outliers, reflecting the centralisation of this sub-specialist activity.

Type and volume of work

When we look at the six example trusts, we can see how units that carry out a large number of one procedure do not necessarily carry out large volumes of other procedures.

For example:

- trust 5 performs a relatively high volume of head and neck cancer surgery, but is at the bottom of the lower quartile for volumes of skin cancer surgery
- trust 1 performs a relatively large volume of trauma work, but very little skin cancer work or simple tooth extraction.

Figure 2: Number of procedures under the care of an oral surgeon or oral and maxillofacial surgeon by provider

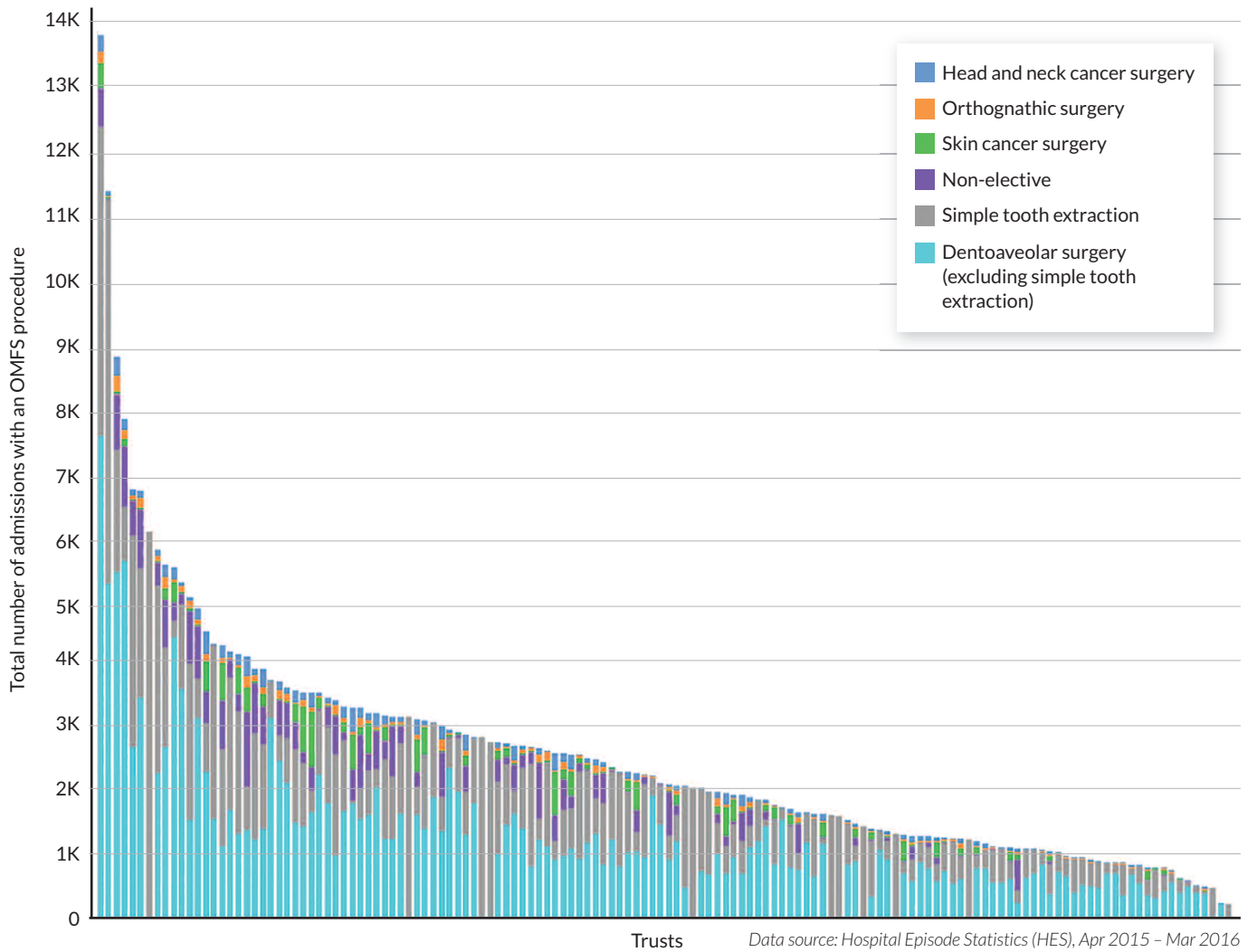


Figure 2 shows there is broad range in unit size with several models of unit.

About our analysis

We carried out our analysis following the established GIRFT model. (For more on the GIRFT programme, see the separate section in this report.)

Identifying oral and maxillofacial service providers

First we set about assembling all of the relevant existing NHS data on oral and maxillofacial surgery. However, identifying the hospitals that provide oral and maxillofacial services proved surprisingly difficult due to issues of incorrect specialty coding. We cover this in detail as part of our Theme 1: Improving data quality and data collection.

Eventually we were able to identify 127 hospitals with some activity in both oral surgery and oral and maxillofacial surgery.

Collecting data

We conducted our own supplementary data collection through an extensive questionnaire to providers.

Where the data allowed, we benchmarked providers on key measures and identified where there is variation.

Carrying out deep dive visits

Deep dive meetings with providers are a vital part of the GIRFT process. At these meetings, we review data at trust level, engaging with clinical and managerial staff to review performance, provide advice and gather views and opinion.

We provided every trust with a data pack. We then visited 64 trusts to discuss the data in depth. At 12 of those visits, the trust was joined by its respective spoke, meaning we have currently been able to discuss data packs with 76 trusts. We plan to continue with our deep dive visits until we have seen as many hospitals as possible.

During these deep dive meetings, we looked closely at the variation in clinical data. We discussed this detail at length with clinicians, senior provider management and all those involved in delivering oral and maxillofacial services.

We also discussed our findings with the British Association of Oral and Maxillofacial Surgery (BAOMS).

Theme 1: Data quality and data collection

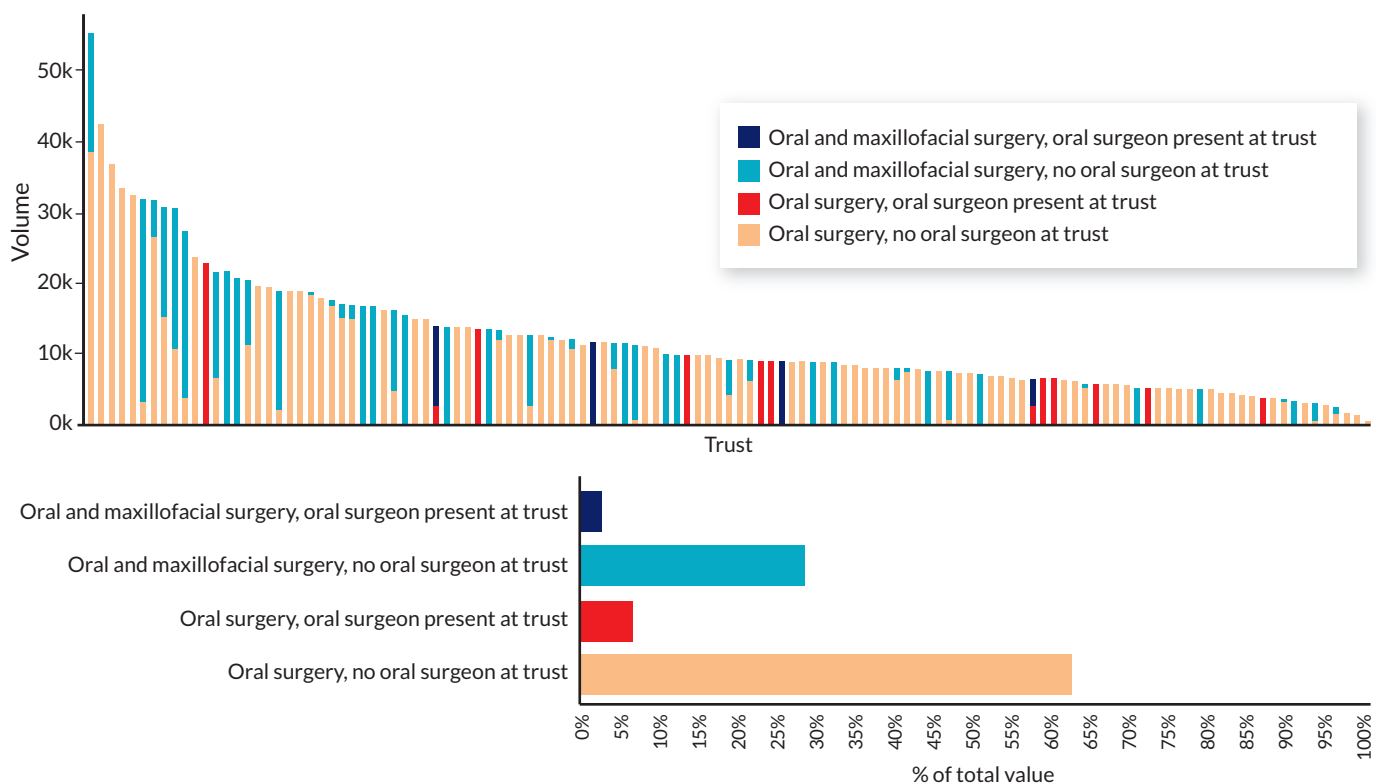
SPECIALTY CODING

Identifying the providers of oral and maxillofacial services

GIRFT specialty reviews are partly based on observation from the data that trusts are mandated to report via national NHS information returns. However, we found that identifying the hospitals that provide oral and maxillofacial services proved difficult.

One reason for this is that many hospitals do not use the correct main specialty code.

Figure 3: Volume of out-patient activity and main specialty attribution by provider (excludes dental teaching hospitals)



Source: Hospital Episode Statistics (HES), 2015/16 for activity, plus deep dive visits for understanding if there is an oral surgeon at the trust.

NHS Data Dictionary descriptions

NHS national data collections include two data items related to specialty:

- main specialty
- treatment function.

These make it possible to differentiate between the delivery of hospital services and the healthcare professional delivering the service.

Main specialty

The main specialty indicates the specialty of the health professional delivering the service.

A health professional's main specialty is the NHS occupation specialty designated by Royal Colleges. For consultants, this will be the specialty shown on their hospital contract. There are also codes for allied health care professionals.

In the case of joint consultant clinic activity, the main specialty code of the consultant managing the clinic should be used.

NHS Data Dictionary reference:

https://www.datadictionary.nhs.uk/data_dictionary/attributes/m/main_specialty_code_de.asp?shownav=1

Treatment function

The treatment function identifies the specialised hospital service under which the patient is treated, such as a clinic or facility.

Treatment function codes should not be selected on the basis of the procedure carried out.

NHS Data Dictionary reference:

https://www.datadictionary.nhs.uk/data_dictionary/attributes/t/tran/treatment_function_code_de.asp

Differentiating between hospital service and clinician

The main specialty and treatment function related to an episode will sometimes be the same and sometimes different.

For example, in a midwife-led obstetric clinic, the main specialty would identify the midwife (main specialty code 560) and the treatment function would identify the obstetric clinic (treatment function code 501).

Use of main specialty codes and treatment function codes to distinguish oral surgery, oral and maxillofacial surgery and hospital dental specialties

Correctly recording the main specialty and treatment, would help health service managers to distinguish between which consultants were responsible for a service, and what service was delivered. However, this would not allow health service managers to assess the proportions of procedures performed by consultant and non-consultant career grade staff. It would be useful to be able to do this, and the GIRFT programme will investigate how this might be possible.

Some coding examples

- A Consultant oral and maxillofacial surgeon delivering a major surgical procedure for a patient with head and neck cancer
Main specialty = oral and maxillofacial surgery (code 145)
Treatment function = maxillofacial surgery (code 144)
- B Consultant oral surgeon delivering a surgical extraction of a wisdom tooth in an oral surgery day case unit.
Main specialty = oral surgery (code 140)
Treatment function = oral surgery (code 140)
- C Independently contracted general dental practitioner delivering a surgical extraction of a wisdom tooth in an oral surgery day case unit.
Main specialty = general dental practice (code 601)
Treatment function = oral surgery (code 140)
- D Orthodontic consultant delivering an orthodontic outpatient clinic
Main specialty = orthodontics (code 143)
Treatment function = orthodontics (code 143)

Incorrect specialty attribution

Attribution of main specialty is particularly poor in both oral and maxillofacial surgery and oral surgery. We found that at least 63% of activity is incorrectly attributed (see Figure 3). This means the picture of work we have for both specialties is inaccurate.

Many hospitals are incorrectly coding activity undertaken by oral and maxillofacial surgeons to the dental-based main specialty of oral surgery. The vast majority of incorrect attribution is happening in units that do not have a recorded oral surgeon on their staff.

The only dedicated departments of oral surgery we found were in the dental teaching hospitals. However, we did find some consultant oral surgeons working within oral and maxillofacial surgery departments. Some of these departments are incorrectly attributing oral surgeon activity to the oral and maxillofacial main specialty.

We do not have an exhaustive explanation for miscoding. However, it is possible that coding practices, historic price differences and contractual agreements between providers and commissioners interact to cause miscoding.

During the deep dive visits it was accurately reported that in the past there has been a difference between the oral surgery out-patient national tariff and the oral and maxillofacial outpatient national tariff. As a result of this difference, we found that that some providers were told by commissioners to code oral and maxillofacial out-patient activity as oral surgery.

The national tariff for out-patient appointments is applied on the treatment function code rather than main specialty. Therefore, whilst main specialty attribution does not influence tariff prices paid, we are aware that main specialty is often coded identically to the treatment function code. It is important that this chain of causation is broken so that health service managers are able to establish who delivered a service and which service was delivered.

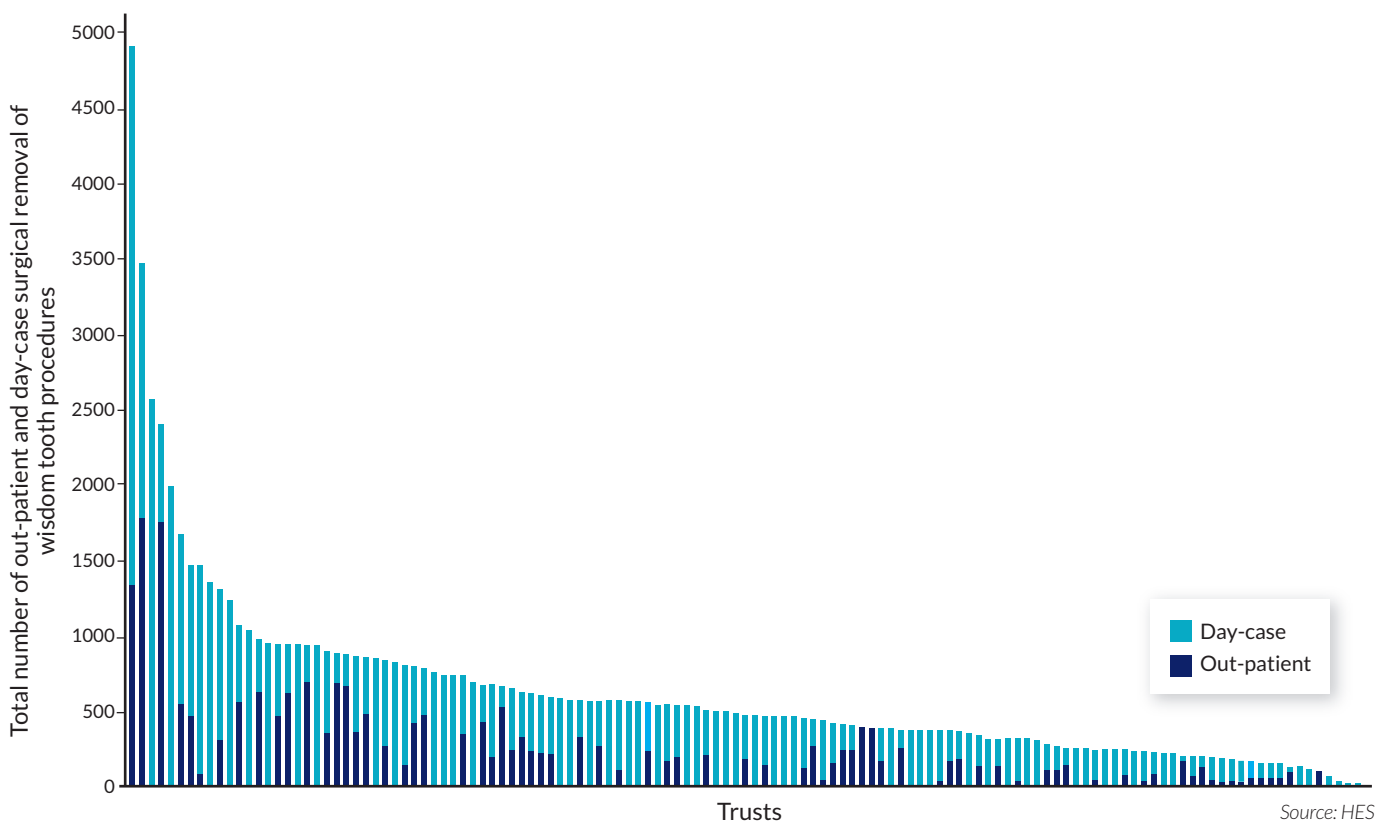
OUT-PATIENT AND DAY-CASE CODING

Current variation in coding

There is a lack of consistency between providers in whether some activity is coded as an out-patient procedure or as a day-case. For example, some units choose to code simple extraction of a tooth carried out in the out-patient department under local anaesthesia as a day-case, while others code it as an out-patient procedure.

Figure 4 highlights the variation in how providers code surgical removal of wisdom teeth and clearly shows that some code all as day-cases.

Figure 4: Out-patient and day-case surgical removal of wisdom tooth



What's driving this variation?

From our deep dive visits, we think the variation in coding is a result of the interplay between two factors:

- the definition of an out-patient case is not clear
- there is a tariff difference between day-case and out-patient activity even when that activity is the same or very similar.

Unclear definition of out-patient procedure

There is a clear definition of a day-case¹³, but not of an out-patient procedure.

The difference is complex: is it the procedure or the place where the procedure takes place that makes the difference?

This lack of clarity leaves the coding choice open to discretion.

¹³ NHS Data dictionary: https://www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp

Tariff differences

There is usually a tariff difference between day-case and out-patient treatment. For example, the 2018/19 tariff (before market forces factor) for major surgical removal of tooth, 19 years and over (HRG Code: CDO4A) as a day-case is £578 and as an out-patient is £123.

Often the procedure is the same and there is no requirement for a bed for an overnight stay whether the procedure is carried out as a day-case or as an out-patient treatment. The exception to this are cases where general anaesthetic is required (which would cost more than procedures under local anaesthetic), which would not be an out-patient procedure.

When we asked, some trusts acknowledge they are carrying out procedures in an out-patient setting but coding them as day-cases.

The need for clarity

In the absence of a clear definition of an out-patient procedure, it has not been possible to compare workloads and understand what volume of day-case patients could have been treated as out-patients.

Table 6 uses wisdom teeth as an example to look at the notional financial opportunity of increasing the proportion of wisdom tooth removals undertaken as an out-patient procedure rather than as a day-case. The figures will be over-estimated because of the coding issues we have described, but it is still clear there is a significant opportunity across dentoalveolar surgery and other oral and maxillofacial surgeries.

The need for a clear out-patient definition – a cross-specialty issue

From our discussions with other specialties, it is apparent that this issue is not limited to oral and maxillofacial surgery. The need to clarify the definition of an out-patient procedure and understand the difference in tariff applies to several other specialties too.

CLINICAL CODING

Clinical coding was generally poor.

GIRFT is aware that OMFS representatives are on working groups to refine clinical terminology (within SNOMED CT) and its links with clinical classification coding systems (OPCS/ICD-10). This will assist in ensuring that an agreed, clinically relevant set of terminology is available for clinicians to describe OMFS procedures in electronic health record systems, and provide information of sufficient granularity to support communication, interoperability and quality data. Concurrently, it is important to take other steps to improve coding.

Coding in head and neck cancer

Issues of clinical coding were most stark in the coding of head and neck cancer procedures.

Major head and neck patients have a number of procedures carried out during the same operation. We drafted a coding algorithm to enable us to collect the necessary data to compare activity. Although this improved the picture we were able to build, there is still room for improvement.

Given that it was not possible to accurately isolate the full set of procedures involved, other metrics, such as length of stay and readmission rates, will not be completely accurate.

Coding in orthognathic surgery

We also found confusion in coding for orthognathic surgery.

There is no specific code for bi-maxillary osteotomy (surgery performed on the mandible and maxilla during the same procedure). Current coding advice is to code it as two procedures: a maxillary osteotomy and a mandibular osteotomy. However, we found that some units have been incorrectly told to code it as a single procedure.

This variation in coding practice means we doubt the accuracy of the overall activity data.

Meetings between clinicians and coders improve coding

We found that units that hold regular meetings between clinicians and coders, such as at St George's University Hospital, London, generally have better data.

WORKFORCE AND HR DATA

We included data from NHS Digital Workforce statistics in the provider data packs. NHS Digital Workforce statistics are a summary output from the Electronic Staff Register (ESR) and report full-time equivalent (FTE) values for all healthcare staff according to their primary and secondary area of work. For example, in the case of doctors, area of work generally relates to their GMC specialty.

However, attribution of area of work in the ESR is poor, resulting in this data being less useful for staff planning purposes. This is particularly the case in oral surgery and oral and maxillofacial surgery, where attribution of areas of work is very poor. Inadequacies in the ESR data reduce the accuracy of the Model Hospital data for trusts. It is difficult to identify trust workforce trends or to benchmark between trusts with any certainty, which limits the insight available for workforce planning.

As HR and cost data on locum staff split by specialty is not reported nationally, we included specific questions about on-call cover and rotas in our pre-visit questionnaires. During our review, we became aware of the practice of supporting rotas with locum staff. However, the limited availability of supporting information made it difficult to analyse the situation in detail. Collecting locum staff data by specialty would provide a useful indicator of workforce capacity shortages at specialty level.

CLINICAL OUTCOME DATA

We found there is no comprehensive set of clinical outcome measures for oral and maxillofacial surgery.

This limits:

- the ability to assess whether the specialty is being delivered in line with standards, such as NICE
- the ability of providers to benchmark themselves against others
- continuous improvement.

Current outcome data

We looked at the various current initiatives related to outcome data in oral and maxillofacial surgery.

Head and neck cancer

A national audit for head and neck cancer was originally commissioned by the Healthcare Quality Improvement Partnership (HQIP). The audit was called the Data for Head and Neck Oncology (DAHNO) and was first collected in 2004 and published by the Health and Social Care Information Centre (HSCIC) in 2006. HSCIC published the tenth and final DAHNO report in 2015.

The audit has since moved from NHS Digital (formerly called HSCIC) to Saving Faces, the Facial Surgery Research Foundation, and has been renamed the National Head and Neck Cancer Audit (HANA). HANA is funded and managed by Saving Faces with input from British Association of Head & Neck Oncologists (BAHNO) and other cancer and audit experts. Data is held by Dendrite Clinical Systems Ltd.

Saving Faces recently published HANA Clinical Outcomes Publication 3 (COP3), which is based on cases diagnosed from 1 January 2012 to 31 October 2014.

From discussions at our deep dive visits, clinicians found COP3 to be of limited value in understanding the performance of the head and neck service: the audit only reports on the number of procedures, referral priority, the five most common tumours and length of stay.

UK National Flap Register

The British Association of Plastic Reconstructive and Aesthetic Surgeons (BAPRAS) runs a UK National Flap Register, which all those practicing tissue transfer (large pedicled flaps and free flaps) can join.

The register focuses on appraisal and revalidation for individual surgeons. It is not a quality assured mechanism to support service improvement.

National Orthognathic Surgery Audit and National Third Molar Audit

The National Orthognathic Surgery Audit is commissioned by The British Orthodontic Society (BOS) and British Association of Oral and Maxillofacial (BAOMS). The National Third Molar Audit is also commissioned by BAOMS.

Both audits are funded and co-ordinated by Saving Faces, The Facial Surgery Research Foundation. NHS Digital provides the IT infrastructure and data management support.

We have now found that, since both audits failed to achieve the participation needed to create meaningful findings and benchmarking, they have now closed.

Skin cancer data

During our deep-dive visits, we found that many skin cancer teams collect data on percentage negative margins. However, this data is not collected nationally or used for national benchmarking.

We also found that data is collected in the British Association of Dermatologists (BAD) audit, but not all facial skin cancer units contribute to that audit.

Moving forward

Oral and Maxillofacial Surgeon Quality Outcomes

In response to early findings of this GIRFT review, BAOMS has instigated a pilot project to define and measure quality outcomes in oral and maxillofacial surgery. This is called Oral and Maxillofacial Surgeon Quality Outcomes in Oral and Maxillofacial Surgery (QOMS).

The project's aim is to prioritise key clinical outcome measures across the specialty to support benchmarking and continuous improvement. The pilot will work with the other specialties, such as ENT, to help reduce duplication and share lessons learnt, including understanding how to access real time data, such as HES.

In its first six months, the pilot has had an excellent response from across all sub-specialty areas of patient care.

Head and neck cancer

There is an opportunity to design head and neck cancer clinical outcome measures with stakeholder engagement. This would help to ensure that the measures are grounded in current best practice.

A number of publications have already looked at quality metrics in major head and neck cancer.¹⁴⁻¹⁵ In the UK, several have drawn attention to the data available in HES.¹⁶⁻¹⁸ NHS Scotland has produced a set of head and neck cancer clinical quality performance indicators v3.¹⁹

In 2017, NICE published guidance on cancer of the upper aero digestive tract (NG36 2016) and has four quality standards (QS146).

We recommend the outcome measures should include evidence-based guidance on:

- surgical margins
- neck dissection yield node
- appropriate and timely adjuvant therapy
- returns to theatre for flap salvage procedures
- overall flap failure rates.

They should also look at pathway issues that have not been the focus of previous audits.

Attribution for multiple-surgeon and team activity

It is common for two surgeons to be involved in head and neck cancer surgery. This helps reduce the time the patient spends on the operating table and, consequently, their risk of morbidity.

Given the benefits of using two surgeons, we strongly recommend that clinical outcome measures should credit surgeons or teams for their part in a procedure.

¹⁴ Measuring Institutional Quality in Head and Neck Surgery Using Hospital-Level Data: Negative Margin Rates and Neck Dissection Yield. Schoppa DW, Rhoads KF, Ma Y, Chen MM, Nussenbaum B, Orosco RK, Rosenthal EL, Divi V. *JAMA Otolaryngol Head Neck Surg.* 2017 Nov 1;143(11):1111-1116

¹⁵ National evaluation of multidisciplinary quality metrics for head and neck cancer. Cramer JD, Speedy SE, Ferris RL, Rademaker AW, Patel UA, Samant S. *Cancer.* 2017 Nov 15;123(22):4372-4381

¹⁶ A stratified analysis of the perioperative outcome of 17623 patients undergoing major head and neck cancer surgery in England over 10 years: Towards an Informatics-based Outcomes Surveillance Framework. Nouraei SA, Mace AD, Middleton SE, Hudovsky A, Vaz F, Moss C, Ghufoor K, Mendes R, O'Flynn P, Jallali N, Clarke PM, Darzi A, Aylin P. *Clin Otolaryngol.* 2017 Feb;42(1):11-28.

¹⁷ A national analysis of the outcome of major head and neck cancer surgery: implications for surgeon-level data publication. Nouraei SA, Middleton SE, Hudovsky A, Darzi A, Stewart S, Kaddour H, Alam P, Jallali N, Birchall MA, Ghufoor K, Aylin P, Clarke PM, Bottle A. *Clin Otolaryngol.* 2013 Dec;38(6):502-11.

¹⁸ Development and validation of a health informatics algorithm for identifying major head and neck cancer surgery amidst Hospital Episode Statistics data. Nouraei SA, xie C, hudosvsky AS, Middleton SE, Macve AD, Clarke PM. *Clin otolaryngol* 2013 Apr;38(2) 186-8. Doi 10.1111/coa.12092

¹⁹ Head and Neck Cancer, Data Definitions for the National Minimum Core Dataset to Support the Introduction of Head and Neck Cancer Quality Performance Indicators, NHS National Services Scotland, August 2018
<http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Head-and-Neck/Head-and-Neck-Cancer-QPI-Dataset-v3-0-FINAL.pdf>

Recommendations

Recommendation*	Actions	Owners	Timeline
1. Improve attribution to main specialty to ensure coded in accordance with the NHS Data Dictionary.	1A: Ensure that all work under the responsibility of consultant oral and maxillofacial surgeons is consistently attributed to their main oral and maxillofacial specialty in accordance with the NHS Data Dictionary.	Providers	September 2019
	1B: Where a consultant oral surgeon carries out oral surgery in an oral and maxillofacial unit, ensure that their work is attributed to their main oral surgery specialty in accordance with the NHS Data Dictionary.	Providers	September 2019
	1C: To investigate options to measure or estimate the amount of activity performed by non-consultant career grade staff under consultant supervision in all surgical specialties.	GIRFT	December 2019
2. Improve clinical coding, particularly for difficult-to-code areas, such as head and neck cancer.	2A: Liaise with key stakeholders to develop a short guide to clinical coding for clinicians and coders that would support best practice.	BAOMS, NHS Digital, GIRFT, NHS England	Significant progress in December 2019
	2B: Offer specialty-specific coder training.	GIRFT, Providers, NHS Digital	Dependent on 2a
	2C: Ensure that surgeons have easy access to their own data and are able to understand and interpret it.	Providers	December 2019
	2D: Ensure that surgeons, trust information teams and coders meet regularly to review activity attributed to the surgeons.	Providers	December 2019
3. Produce a clear definition of an out-patient procedure for data collection purposes.	3A: Agree the out-patient definition	GIRFT, NHS England, NHS Digital, NHS Improvement	Significant progress by December 2019
	3B: Establish which oral and maxillofacial out-patient procedures meet the definition.	GIRFT, NHS England, NHS Digital, NHS Improvement	Dependent on 3a
4. Improve the recording of workforce and HR data to support workforce planning.	4A: Review and take actions to improve recording attribution of area of work in ESR.	Providers	October 2019
	4B: Investigate how national locum expenditure can be recorded by specialty.	NHS Improvement, GIRFT	Significant progress by December 2020
5. Deliver an efficient and patient-focused outcomes audit programme for oral and maxillofacial surgery.	5A: Establish how to use real-time data, reduce the duplication of data collection supported by trusts and support continuous improvement.	GIRFT, NHS England, NHS Digital, NHS Improvement	Significant progress by December 2020
	5B: Develop and evaluate the Quality Outcomes in OMFS (QOMS) pilot.	BAOMS, GIRFT, NHS England, NHS Digital, NHS Improvement	Significant progress by December 2020
	5C: Review the HANA audit with the other relevant specialties.	GIRFT, NHS England, NHS Digital, Saving Faces, BAHNO, BAOMS, ENTUK, BAPRAS, NFORC	Significant progress by December 2020

* See Appendix 1 for details on giving commissioners notice of changes in the way you record activity

Theme 2: Performing dentoalveolar surgery in an appropriate setting

Many oral and maxillofacial units are carrying out high volumes of dentoalveolar surgery (see figures 1 and 2).

We believe the volumes are so high that resources are not being used optimally and a significant proportion of dentoalveolar surgery could be carried out in a more appropriate setting.

Establishing the appropriate setting for dentoalveolar treatment

There are four key factors that determine the appropriate setting for dentoalveolar treatment:

- the level of surgical competency required to deliver the treatment
- level of treatment complexity²⁰
- the type of anaesthetic required (local anaesthetic, local anaesthetic plus sedation, general anaesthetic)
- whether there are any co-morbidities.

For example, a patient with significant co-morbidities or who requires a general anaesthetic would need to have their surgery in secondary care, whereas a patient who requires less complex surgery under local anaesthesia or local anaesthesia with sedation and who has no co-morbidities could be treated in a level 2 (intermediate care) service.

General anaesthetic and co-morbidity data

Since the requirement for general anaesthetic and presence of co-morbidities are two of the key factors in determining the appropriate treatment setting, we tried to look at the volumes for each.

Accurate data would have enabled us to assess what proportion of dentoalveolar work is currently taking place in an appropriate setting. However, we found we were unable to establish the volumes because:

- the codes for anaesthesia are generally not used; and
- co-morbidity codes are not used consistently.

This made it impossible to then assess the volume of patients that could potentially be treated in an alternative setting.

Key influences on the current skew towards the secondary care setting

A complex set of issues²¹ is currently pushing patients towards secondary care services for dentoalveolar surgery. We have given an overview of the key factors below.

Contractual arrangements

One consequence of the dental contract reform in 2006 has been an increase in the proportion of dentoalveolar referrals to secondary care²².

To help remedy this, the Department of Health and Social Care has put in place a contract reform programme²³. As well as testing a contract model to support patients on a care pathway to prevent disease and secure improved oral health, the programme focuses on prioritising access to dental services in a primary care setting.

We also found during discussions with BAOMs that in Northern Ireland the Health and Social Care Board has instigated a pilot (approved by Department of Health) to reduce the number of dentoalveolar referrals to secondary care by testing a new model for referral, payment and delivery of oral surgery services. The pilot is utilising existing oral surgery high street practices.

Issues with level 2 services

During our deep dive visits, a number of units expressed the opinion that the current provision of level 2 intermediate services could be improved.

A number of issues were raised, predominantly around staffing and service set up.

²⁰ *Guide for commissioning oral surgery and oral medicine, NHS England, 2015*
<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-oral.pdf>

²¹ *An evaluation of a referral management and triage system for oral surgery referrals from primary care dentists: a mixed-methods study, Goldthorpe, Walsh, Tickle, Birch, Hill, Sanders, Coulthard, and Pretty, Health Services and Delivery Research Vol. 6 (8), Feb 2018*

²² *Guide for commissioning oral surgery and oral medicine, NHS England, 2015*
<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-oral.pdf>

²³ <https://www.pcc-cic.org.uk/article/dental-contract-reform>

We were told that commissioners in many areas have tried to set up level 2 services at dental practices or health centres. These services have been staffed by general dentists with a special interest in oral surgery and variable experience. However the increased complexity of this surgery means dental practitioners should have enhanced skills and preferably be on the specialist list in oral surgery.

From our conversations, the feeling was that the fees paid are not adequate to attract specialist staff or to encourage providers to undertake more than the most simple of procedures. One hospital told us that their staff went into primary care premises to carry out dentoalveolar surgery, but those services were remunerated at the secondary care rate.

Framework for assurance and accreditation

To help reduce the variability, NHS England has recently produced a framework²⁴ to provide assurance of providers and accreditation of performers (dental practitioners). The aim is that, once accredited, the dental practitioner will be able to work in an appropriately commissioned (assured) service in order to provide level 2 services.

Inequalities in the provision of conscious sedation

Patients suffering from disproportionate anxiety or facing potentially distressing treatment could have treatment under local anaesthesia with sedation rather than having it in secondary care under general anaesthesia.

However, we found there are local inequalities in the provision of dental sedation services.

To tackle this, NHS England has recently published commissioning standards to clarify the commissioning direction with regard to conscious sedation in primary dental care²⁵.

Patients not accessing primary care dentistry

A significant number of patients with dental pain are going to their GP and are then referred to secondary care, or they are seeking treatment at hospitals or urgent care centres.

A number of factors are contributing to patients not accessing primary care dentistry, including:

- Concerns about cost of treatment²⁶ (There are indeed patient charges for NHS dentistry in primary care²⁷.)
- Anxiety about treatment.²⁸
- Unlike registering with a GP, it is not possible to register with a NHS dental provider. This means appointments are not guaranteed unless the patient is undergoing a course of treatment.

Referral management and triage

In an attempt to facilitate the use of appropriate setting for dental services, NHS England has established dental referral management centres in a number of locations.

There are a number of issues:

- National coverage is patchy and the centres provide only a localised service with no national oversight – potentially leading to inequality of service for patients.
- There are no national triage standards for the referral centres to follow.
- Referrals from GPs use the NHS e-Referral service (previously known as Choose and Book), meaning they bypass any triage system.

National Institute for Health Research (NIHR) study

NIHR has funded a recently completed three-year study²⁹ of a referral management and electronic triage system for oral surgery referrals. In the two phases of the study, 43% and 45% of referrals were diverted to primary care, including level 2 intermediate services (this study was carried out in an area with no previous referral management system in place.)

²⁴ Accreditation of Performers and Providers of Level 2 Complexity Care, NHS England, September 2018
<https://www.england.nhs.uk/publication/guidance-for-commissioners-on-the-accreditation-of-performers-of-level-2-complexity-care/>

²⁵ Commissioning Dental Services: Service standards for conscious sedation in a primary care setting, NHS England, 2017
<https://www.england.nhs.uk/wp-content/uploads/2017/06/dental-commissioning-guide-service-standards-conscious-sedation-2.pdf>

²⁶ Cost and anxiety are barriers to dental care. In 26% of patients, treatment is affected by cost. 12% of patients had MDAS scores of 19 or more, indicating extreme dental anxiety, while 36% had scores of 10 to 18, indicating moderate dental anxiety. Theme 8: Access and barriers to care – a report from the Adult Dental Health Survey 2009.

²⁷ <https://www.nhs.uk/using-the-nhs/nhs-services/dentists/what-happens-when-you-visit-the-dentist/>

²⁸ 7% of the population never attend a dentist and 12% only when in pain. Public perceptions of choice in UK dental care: findings from a national survey. BDA, October 2012.

²⁹ An evaluation of a referral management and triage system for oral surgery referrals from primary care dentists: a mixed-methods study, Goldthorpe, Walsh, Tickle, Birch, Hill, Sanders, Coulthard, and Pretty, Health Services and Delivery Research Vol. 6 (8), Feb 2018

CASE STUDY

Impact of delivering dentoalveolar surgery in an secondary care treatment centre

SOUTHAMPTON NHS TREATMENT CENTRE

Southampton NHS Treatment Centre offers a case study on what happens when dentoalveolar surgery is undertaken in an secondary care treatment centre.

About this case study

We have included this case study to show how one model has impacted the treatment setting, not as an endorsement of the model for all situations.

We do not have data to be able to assess whether a proportion of the dentoalveolar surgery now taking place in the treatment centre should be carried out in another more appropriate setting.

Minor dentoalveolar activity at the neighbouring trust has fallen

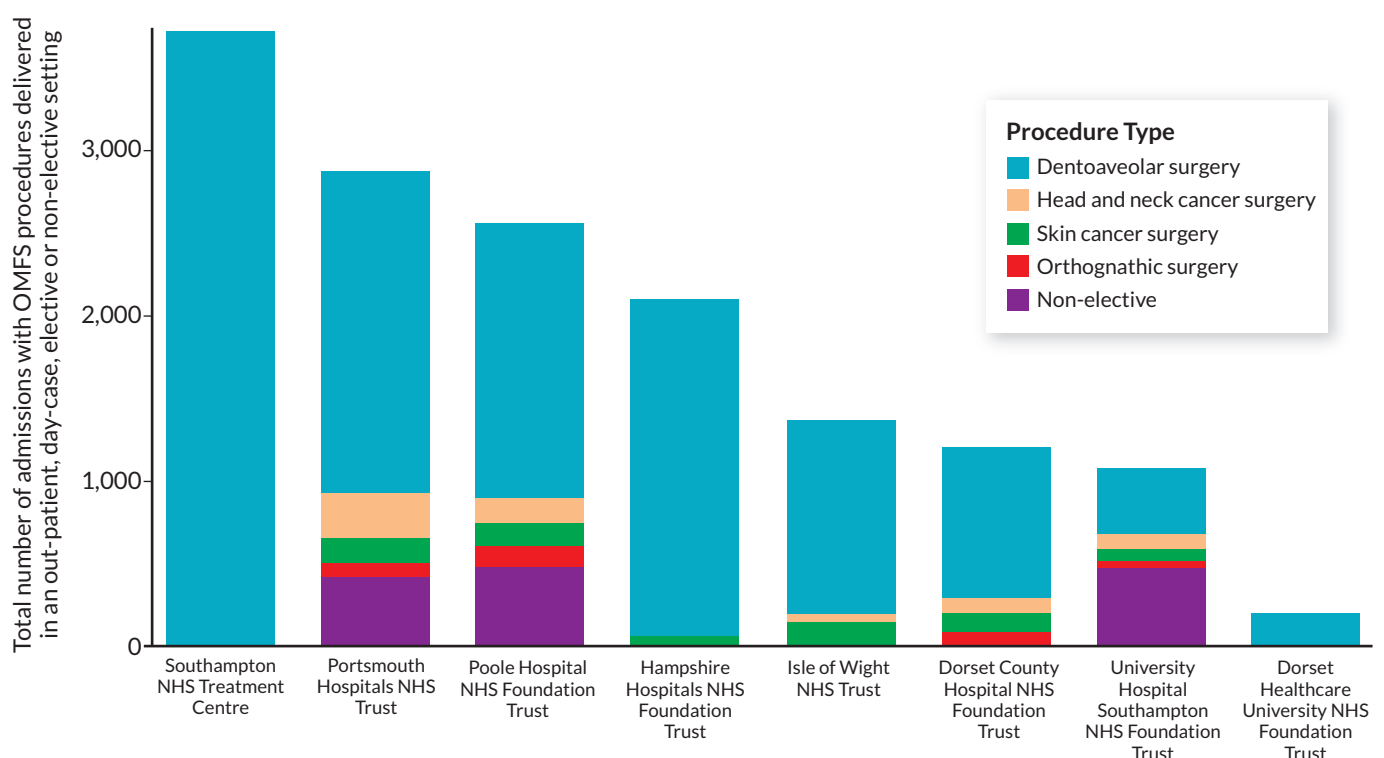
Since Southampton NHS Treatment Centre opened in 2008, it has taken over a significant amount of dentoalveolar surgery.

Some of this surgery would have previously taken place at University Hospital Southampton. Figure 5 shows that the University Hospital now does significantly less dentoalveolar surgery in comparison to the other trusts in the same commissioning area. It continues to handle work where co-morbidities are such that the patient is not suitable for treatment in another setting.

Impact of moving dentoalveolar activity from a trust

One concern that oral and maxillofacial providers may have is that moving volumes of minor surgery away from their unit may result in the unit becoming non-viable. We have not explored this in detail, but we know that Southampton NHS Trust has now recovered from the initial financial impact.

Figure 5: Number of procedures under the care of an oral surgeon or maxillofacial surgeon



Date source: Hospital Episode Statistics (HES), Apr 2015 – Mar 2016

The opportunity

As the commissioners for both dentistry and oral and maxillofacial surgery, there is an opportunity for NHS England to define a dentoalveolar surgery pathway. The pathway should meet the needs of patients, service requirements and future planning and contract needs. The pathway should also link with Managed Clinical Networks (MCNs) which should include OMFS representatives.

“MCNs are groups of health professionals and organisations from primary, secondary and tertiary care working in a coordinated manner, unconstrained by existing professional and organisational boundaries, to ensure equitable provision of high quality, clinically effective services. ...MCNs use aggregate data to shine a light on trends, such as outcomes and appropriateness of referrals, to drive up quality.³⁰”

Recommendations

Recommendation	Actions	Owners	Timeline
6. Take steps to ensure that dentoalveolar surgery takes place in the appropriate setting.	6A: Ensure correct coding of <ul style="list-style-type: none"> • the type of anaesthetic used • the presence of an anaesthetist • the presence of any co-morbidities. 	Providers	September 2019
	6B: Use the coding and co-morbidities data to assess what proportion of dentoalveolar surgery could be carried out in the different settings,	NHS England, GIRFT, NHS Digital	By December 2019 (dependent on 6C)
	6C: Explore the potential impact of moving a proportion of dentoalveolar work out of secondary care and the functionality of the different settings available locally to support an integrated care pathway across both the elective and non-elective elements. This is to include planning and contractual requirements.	NHS England, MCNs, GIRFT, BAOMS	Informed by 6B
	6D: Based on the findings from 6B, 6C and examples of good practice, produce a plan to enable the development, implementation and continuous improvement of an integrated pathway for dentoalveolar surgery.	NHS England, MCNs, GIRFT, BAOMS	Dependent on 6C

³⁰ *Introductory Guide for Commissioning Dental Specialties, NHS England, 2015*
<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/intro-guide-comms-dent-spec1.pdf>

Theme 3: Improving efficiency by organising care through networks

DEVELOPING HUBS AND SPOKES

The current picture

The oral and maxillofacial specialty is relatively small. As the nature of the surgery has developed and junior training has evolved, most units have come together to work across trusts.

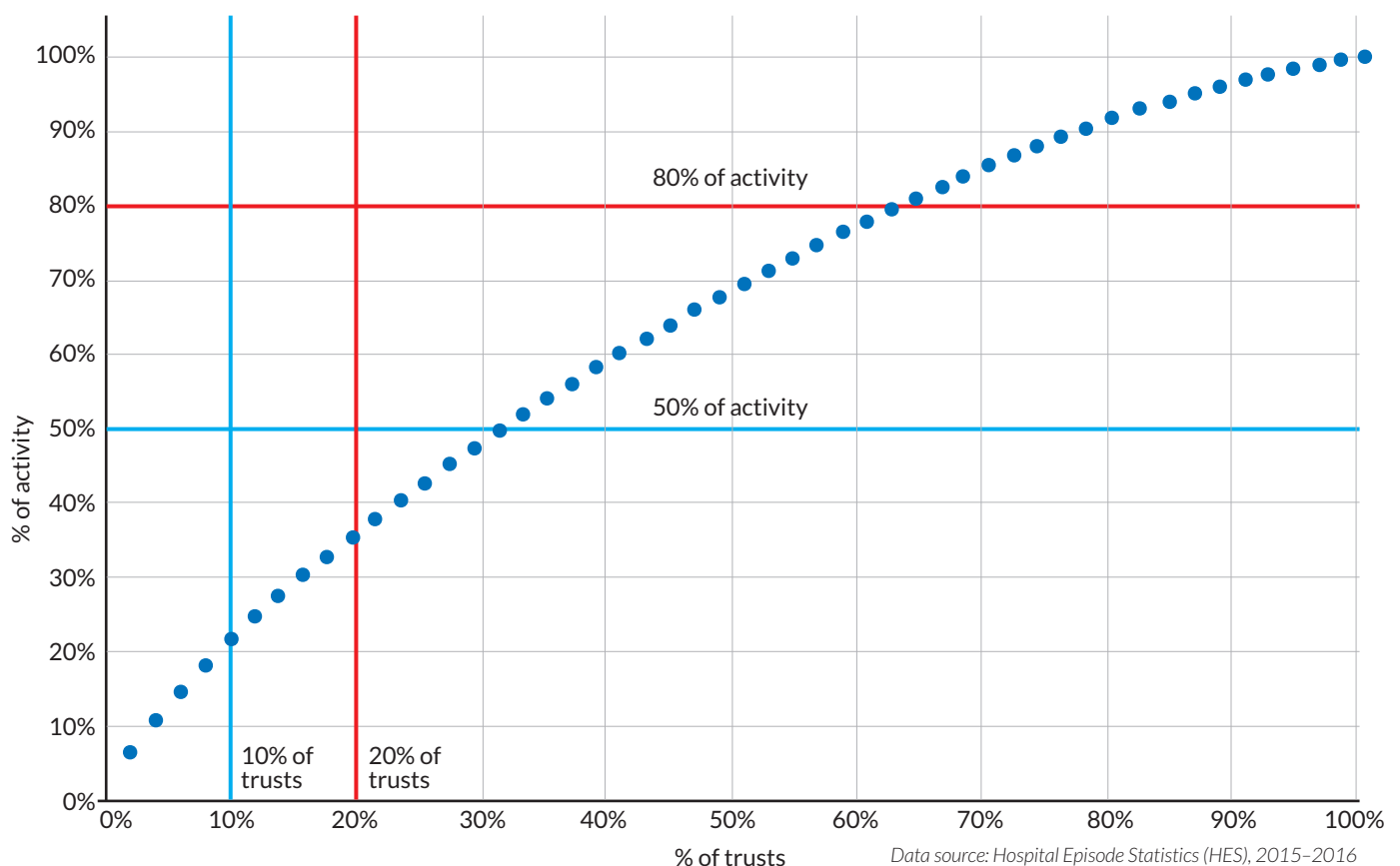
One of the big drivers for change was the need to centralise head and neck cancer services. This move started with the Calman-Hine report in 1995³¹, was subsequently reinforced by the NHS cancer plan in 2000³² and then again by the NICE head and neck improving outcomes guidance (IOG) in 2004³³. A report in 2014 showed a reduction in the number of units offering head and neck cancer services¹.

Figure 6 and Figure 7 reflect the picture of centralisation in skin cancer surgery and head and neck surgery.

Centralisation has led to the emergence of a group of large providers of sub-specialised services, with many small units still in existence. This may reflect different stages in the evolution of cancer service centralisation^{5,6,7}.

Figure 6 shows that 30% of trusts perform 50% of activity. It is likely that these numbers have already changed as the process of centralisation in head and neck has continued.

Figure 6: Head and neck activity by trust



³¹ A policy framework for commissioning cancer services: A report by the Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales (Calman Hine report), The Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales, April 1995 http://webarchive.nationalarchives.gov.uk/20080817211349/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4071083

³² The NHS Cancer plan, Department of Health, 2000 http://webarchive.nationalarchives.gov.uk/+http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4009609

³³ Improving Outcomes in Head and Neck Cancers - The Manual, National Institute for Clinical Excellence (NICE), 2004. <https://www.nice.org.uk/guidance/csg6/resources/improving-outcomes-in-head-and-neck-cancers-update-773377597>

Figure 7: Skin cancer activity by trust

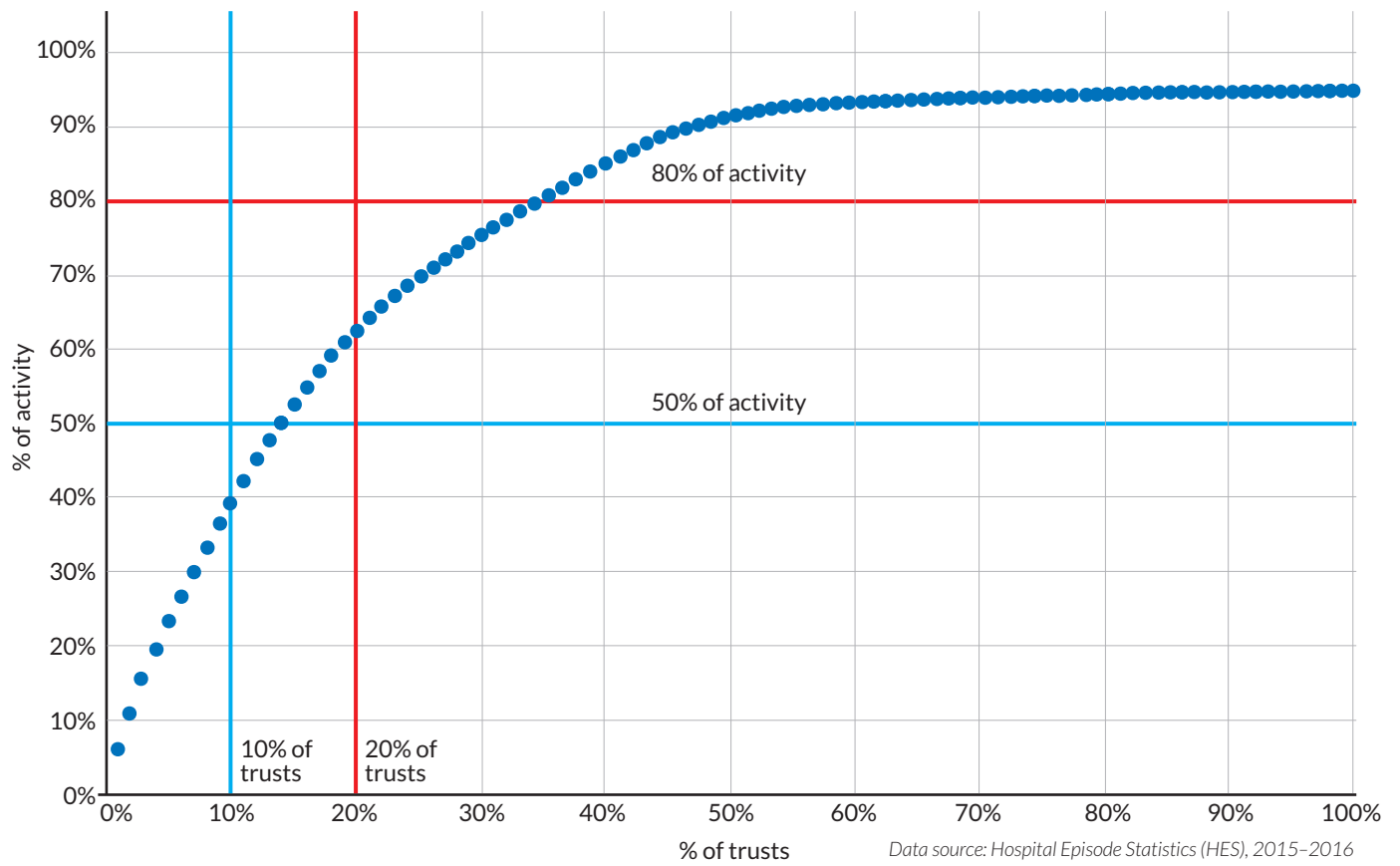


Figure 7 shows that 10% of trusts contribute almost 40% of the work, while a large number of units (in the middle phase) do some of the work, and a pronounced tail of units carry out very low activity volumes.

Assessing the effectiveness of centralisation must be based on the desired regional networking arrangements, patient flows and desired outcomes.

Key drivers for hub and spoke models

Work complexity and staffing

The complexity of head and neck cancer work, along with the substantial resources required to treat them effectively, continues to drive centralisation³⁴.

Units carrying out head and neck cancer surgery need to be large enough to support:

- two-surgeon, three-session operating lists
- a separate on-call rota for flap salvage
- adequate consultant numbers to cover annual leave, and
- adequate numbers of health professionals.

The King's Fund report on reconfiguration of services in 2014³⁵ found that one of the main drivers for reconfiguration of services was medical staffing, including the demands of 24/7 working on senior medical staff and the limits on junior doctors resulting from the European Working Time Directive (EWTD).

Work volumes

Units without a head and neck cancer centre are left with a low volume of in-patient activity. Since such units are often away from major cities, where the cancer work has tended to be placed, the volume of emergency work is also low. We came across a number of such units where there is a need to maintain an on-call rota to look after a low volume of work.

The nature of the work

One of the general concerns about centralising surgical services is the effect on the periphery. However, in oral and maxillofacial surgery the bulk of the case load by volume is day-case surgery, which is eminently suitable for peripheral units. This is demonstrated by existing hub and spoke arrangements where hubs carry out all the in-patient work in their network, while consultants carry out out-patient consultations, follow-up work and day-case work at the spoke units.

Table 1: Examples of existing hub and spoke models

London North West	six spokes
Luton and Dunstable	four spokes
Oxford	three spokes

Contractual arrangements

Service level agreements

We found variation in the contractual arrangements between providers within hub and spoke models. Some have established formal service level agreements, while others have more informal arrangements.

At Luton and Dunstable, arrangements were not initially supported by service level agreements (SLAs) –something that they now acknowledge to be a major error. The experiences of the early networked units show that SLAs are essential for consistency in network operation and must be a requirement between networked providers.

Consultant contracts

Most networks have moved all consultant contracts to the hub. Some hubs, such as London North West, are responsible for targets such as 18 weeks across their network.

No network we have visited so far has a network manager. This is a role that has worked well in networked cleft lip and palate services.

³⁴ *Reshaping surgical services: principles for change*, Royal College of Surgeons of England, Jan 2013. <https://www.rcseng.ac.uk/news-and-events/media-centre/press-releases/rcs-publishes-principles-for-reshaping-surgical-services/>

³⁵ *The reconfiguration of clinical services: What is the evidence?*, Imison et al, The King's Fund, 2014. <https://www.kingsfund.org.uk/publications/reconfiguration-clinical-services>

CASE STUDY

LUTON AND DUNSTABLE UNIVERSITY HOSPITAL

Comments from Luton and Dunstable summed up the feeling of all the hubs we visited.

'Overall, this was the best thing we could have done. It concentrates a large volume of work and provides better training and clinical governance, which is essential for junior doctors and professional development.

Single on-call is better for junior doctor out-of-hours commitments. And to have been able to make on-call less burdensome means that there can be greater availability during normal hours.

We have an increased number of consultants, which makes it easier to manage the volume of emergencies on one site.

Effective SLAs are essential to prevent issues associated with service model changes outside of the agreement over time, and it is preferential for all contracts held by the hub trust for service continuity.

Historic problems with transferring records and images from spokes to hubs is becoming less severe with electronic records, which greatly improves the association of network participants.

Trust between colleagues is absolutely essential so that a consultant-led ward round at the hub can manage everyone's patients.'

Effective governance is essential

We found some instances where a spoke unit's activity is not integrated into the Quality Assurance (QA) of the hub and there is lack of clarity on clinical responsibility. For example, at one centre, a head and neck cancer surgeon travels to a hub to operate, but is not available to see the patient post-operatively because the necessary job plan adjustments have not been made.

Service specifications must be established to integrate QA and ensure full clarity on clinical responsibility. Governance issues must be addressed in hub and spoke arrangements and networks .

Cancer Alliances

Cancer Alliances provide strategic oversight for improving population cancer outcomes.

They take a 'whole population, whole pathway' approach to provide a focus for improvement and leadership on cancer in defined geographies. This includes supporting best practice sharing and addressing unnecessary variation.

Cancer Alliance activities are alongside existing arrangements set out in the contract for quality surveillance and performance monitoring.

NHS England head and neck cancer service specification review

NHS England is currently undertaking a review into head and neck cancer services. This review is a result of the Independent Cancer taskforce report and recommendation 26 of the report, which stated: "*Clinical reference groups (CRG) should regularly evaluate emerging evidence to determine whether service configuration for surgery merits further centralisation and advise NHS England accordingly. Any reconfiguration should be undertaken with regard to broader commissioning and patient experience factors.*"³⁷

ENSURING EQUITABLE ACCESS TO ORTHOGNATHIC TREATMENT ACROSS ENGLAND

The current picture

Figure 8 shows the disparity in volumes of orthognathic treatment across England and suggests a picture of inequitable access to treatment.

During the three-year period, residents from just 22% of the Lower Super Output Areas (LSOAs) had orthognathic treatment. In the majority (78%) of the LSOAs, nobody had any orthognathic treatment.

Orthodontists and access to treatment

Orthognathic patients are usually treated on a joint basis, with orthodontists setting up the dentition prior to the surgery. Referrals also generally come from orthodontists.

Figure 8 suggests a greater number of people have orthognathic treatment when they live in proximity of a larger orthodontic unit. The University Hospital of North Midlands is one example and we found a similar picture elsewhere during our deep dive visits.

Where units have had problems recruiting consultant orthodontists, it could be that there is little orthognathic activity. However, without further investigation, it is not possible to be conclusive about this.

Patient need

It is not possible to tell whether the activity shown matches the population's need for orthognathic surgery. We investigated whether we could measure the demand or need against activity to understand if there is inequitable access to orthognathic treatment, but we found the data is not available. What we do know is that approximately one third of the child population needs orthodontic treatment and that the need for orthodontic treatment "is expected to rise as the health and expectations of the population improve."³⁸ This doesn't tell us what percentage will need orthognathic treatment as adults and whether the rise will be the same.

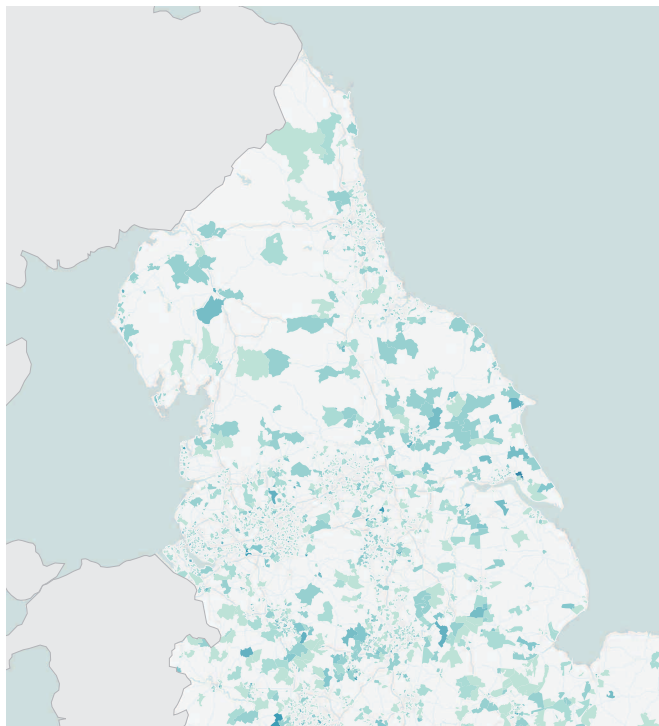
NHS England is currently piloting a commissioning guide to orthognathic surgery and we await the outcome.

Where units carry out only a small volume of orthognathic surgery, there may be a need to develop a hub and spoke network as described earlier in this theme.

Orthodontic services are subject to the separate GIRFT hospital dentistry review. Any recommendations related to orthodontic services should consider the potential impact on orthognathic services.

Figure 8: Number of orthognathic procedures by Lower Super Output Area (LSOA)

North



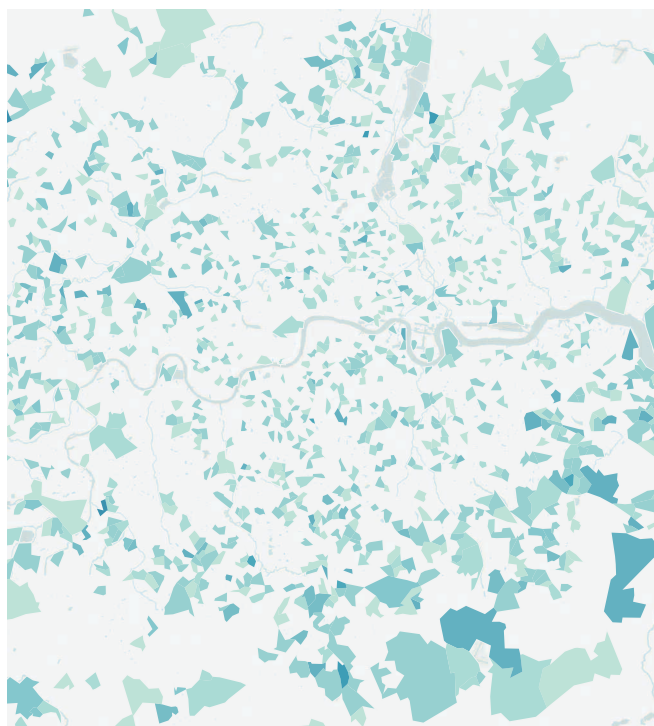
Midlands & East







South



London



Key

Low     High
Number of orthognathic
procedures taking place

Data source: Hospital Episode Statistics (HES), 2013/14–2015/16

Lower Super Output Areas (LSOAs)

LSOAs are a unit of geographical area used by the Office for National Statistics. They are designed to provide an unchanging area of geography (in contrast to postcodes or wards, which are subject to regular revision).

LSOAs have minimum population of 1,000 and maximum of 3,000, and between 400 to 1,200 households. This means they provide a relatively uniform unit for comparison.

(In contrast, CCG populations range in size from 70,000 to 900,000.)

There are 32,844 LSOAs in England.

REVIEWING THE PROVISION OF MAXILLOFACIAL LABORATORY SERVICES

Most Oral and Maxillofacial units currently have access to an on-site maxillofacial laboratory.

Variation in laboratory costs

We asked the units to tell us if they had a laboratory and to provide information on the costs of certain appliances produced there. Often this information was not available. Where we had data, we found considerable variation in costs. Further information relating to procurement can be found in Theme 6.

Changing needs, technologies and practices

Maxillofacial laboratories have traditionally been staffed by maxillofacial technicians. However, some units are looking at employing medical engineers, as changes in the practice of oral and maxillofacial surgery have resulted in changing laboratory needs, with new scanning technology requiring new skills.

One example of new practice is the use of templates in head and neck cancer surgery. Templates can reduce operative time by aiding both the excision of the lesion and the preparation of tissue for reconstruction. Currently, many units purchase such templates from overseas companies. Some UK laboratories are currently developing the technology in-house.

A number of laboratories have expanded to offer services to other hospital departments.

Reviewing how best to deliver oral and maxillofacial technological support

Changing needs, technologies and practices mean there is a need to look at how best to deliver the most up-to-date requirements for oral and maxillofacial technological support.

There are a number of models that could be considered, including the pathology networks set up by NHS Improvement. These networks have enabled the transformation of pathology services by bringing together expertise to understand how services can be delivered more efficiently while ensuring patients receive high quality care.

Recommendations

Recommendation	Actions	Owners	Timeline
7. Deliver oral and maxillofacial surgery through local networks, such as hub and spoke models, to optimise quality and efficiency.	7A: Develop guidance based on existing best practice examples to support the development of a service specification for local network reconfiguration. The guidance should cover the full oral and maxillofacial workload. We expect the specification would be a minimum volume of approximately 300 non-elective admissions per year (representing around one admission per day). It should also support contract, operational and geographical considerations.	NHS England, relevant STPs, GIRFT, Providers	Substantial progress by December 2020
	7B: Support NHS England on the development and implementation of the revised head and neck cancer service specification.	GIRFT	
8. Ensure equal access to orthognathic treatment across England.	8A: Ensure equal access to orthognathic treatment across England.	GIRFT, NHS England	By December 2019
	8B: Review the outcomes of NHS England's orthognathic commissioning guide and approval process pilot.	GIRFT, NHS England	By December 2019
	8C: Develop plan based on 8a and 8b.	GIRFT, NHS England, BOS	Dependent on 8a and 8b
9. Review how best to deliver maxillofacial laboratory services and technical services, taking changing needs, technologies, and practices into account.	9A: Undertake a separate dedicated review of maxillofacial laboratories and technological support. The report should include recommendations and actions.	GIRFT Clinical Fellow	Significant progress by June 2020

Theme 4: Optimising the secondary care pathway

During our deep dive visits we found variation in:

- follow-up to new out-patient attendances
- non-elective workflow
- readmission rates.

Understanding and reducing unwarranted variation, through agreed best practice in each of these areas, will help to release capacity.

FOLLOW-UP TO NEW OUT-PATIENT ATTENDANCES

There is wide variation in the ratio of follow-up to new out-patient attendances between providers.

Table 2: Follow-up to new ratios

	Low	High	Average
Adult patients	0.23	3.72	0.74
Child patients	0.13	7.95	0.9

When we looked at what is causing this variation, we found the data pointed to process and decision-making factors rather than casemix. This finding was supported by the discussions we had during our deep dive visits.

Current variation not due to casemix

If all other factors were equal, casemix would be the greatest influence on any variation in follow-up to new ratios from one provider to another. Figure 2 shows providers carrying out higher volumes of procedures generally have a more varied casemix. As a result, we would have expected them to have greater levels of follow-up and therefore a higher follow-up to new ratio.

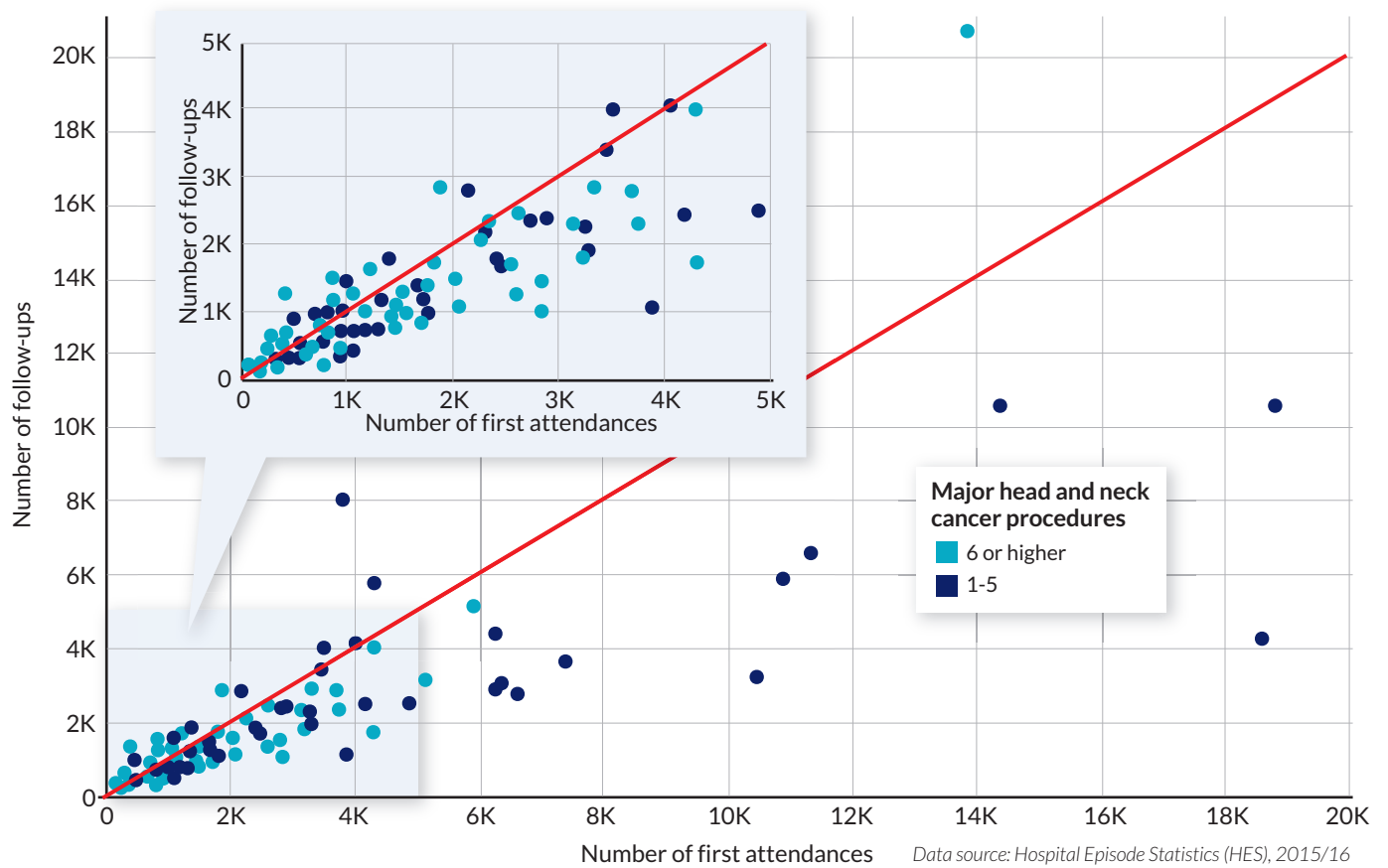
Surgical complexity

To understand the variation, we looked at two ends of the spectrum of complexity in oral and maxillofacial surgery: dentoalveolar surgery to represent non-complex, and head and neck cancer surgery to represent complex surgery.

In dentoalveolar surgery, no follow-up or very limited follow-up should be the norm. However, we found there is a wide range of variation in smaller units, where work is largely made up of dentoalveolar surgery. We expected to find greater variance in the larger units, because of their more varied casemix, but this was not evident: University of Bristol Hospital, Norfolk and Norwich University Hospitals and St George's University Hospital feature in the five trusts with the lowest adult follow-up out-patient ratios.

This is further supported when we look at Figure 9, which distinguishes between units that perform greater (more than five) and lower (fewer than six) volumes of head and neck cancer surgery.

Figure 9: Follow-up to new ratio for attendances under the care of an oral surgeon or oral and maxillofacial surgeon – adults aged 19+



Variation is therefore being caused by other factors as well as complexity.

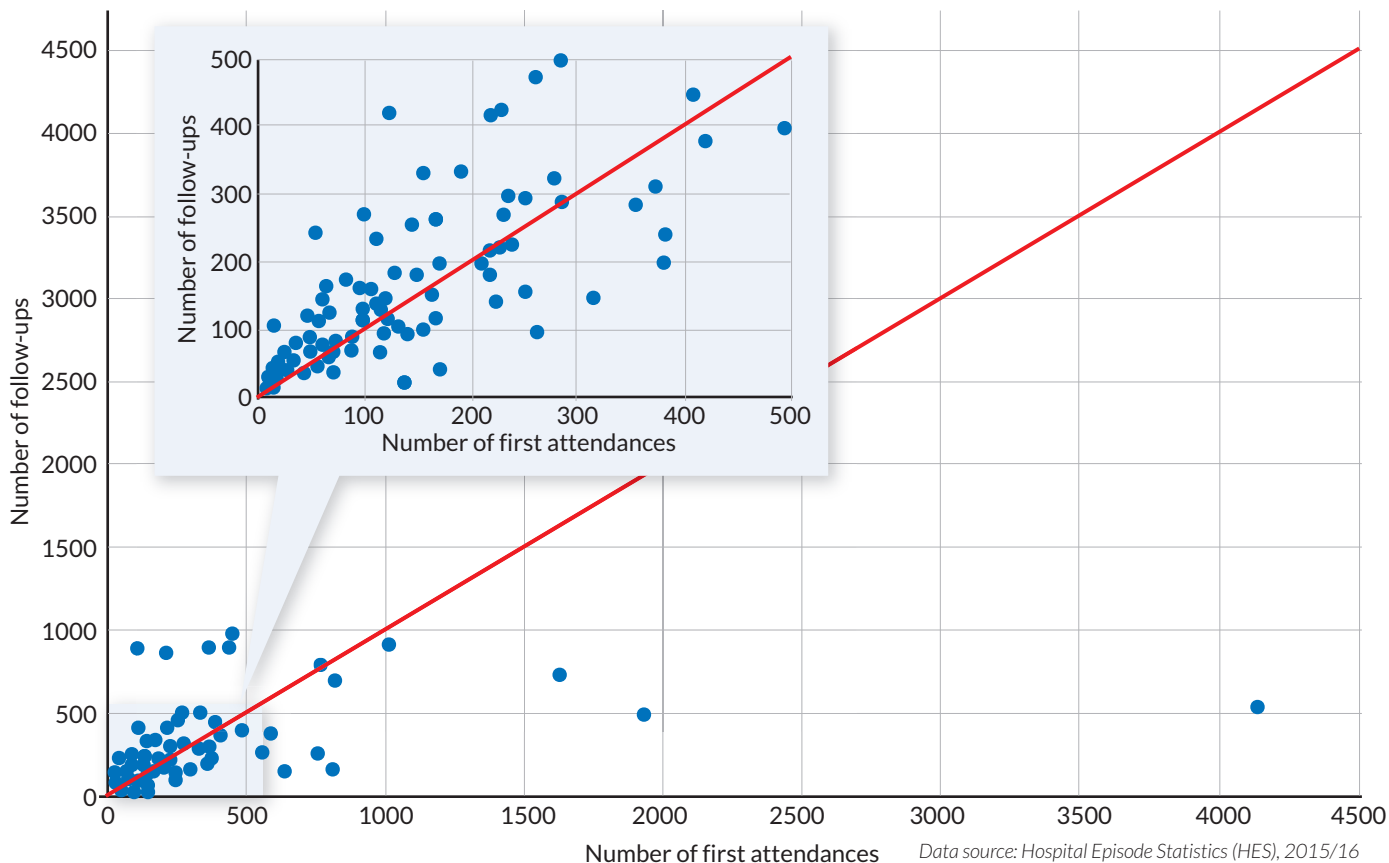
It seems likely that a degree of this variation is not related to the surgical case load but to the non-surgical cases, such as temporomandibular joint problems, facial pain and oral medicine. Unfortunately, we have not been able to explore this further with the data available to us.

Patients under 19 years of age

We also found variation when we looked at follow-up to new ratios for patients under 19 years of age. Figure 10 shows variation in practice, with larger units generally demonstrating one of two behaviours: either dramatically high or dramatically low follow-up to new ratios.

Our review does not include children’s hospitals, so again the variation is unlikely to be linked to the type of surgery being performed.

Figure 10: Follow-up to new ratio for attendances under the care of an oral surgeon or oral and maxillofacial surgeon – children under 19



Process and decision-making factors

If variation in follow-up to new ratios is not wholly a result of casemix, the ratios must be influenced by process and decision-making factors.

This finding is supported by the correlation we found in follow-up to new rates in both adults and paediatric patients.

Of the 20 trusts with the lowest adult follow-up to new ratios, nine also feature in the same list for children. Of the 20 trusts with the highest follow-up to new ratios for adults, nine also feature in the same list for children.

Process and decision-making factors are likely to affect both the surgical and non-surgical caseload, complex and non-complex.

Tackling variation in follow-up to new ratios

Robust standard protocols should be established in order to reduce unwarranted variation in follow-up out-patient appointment volumes.

Protocols should apply to all subspecialist areas, particularly in non-surgical areas.

In dentoalveolar surgery, the protocol benchmark for follow-up appointments should be zero.

NON-ELECTIVE WORKFLOW

The oral and maxillofacial surgery units in our review have between 0 and 1,200 non-elective admissions per year. The majority of non-elective admissions are soft tissue injuries, injuries to the facial skeleton and dentofacial infections.

Generally, oral and maxillofacial non-elective work does not require a long pre-operative stay: cases either need to go to theatre quickly or can be sent home to return for a planned list.

We looked at the effectiveness of current non-elective workflow processes.

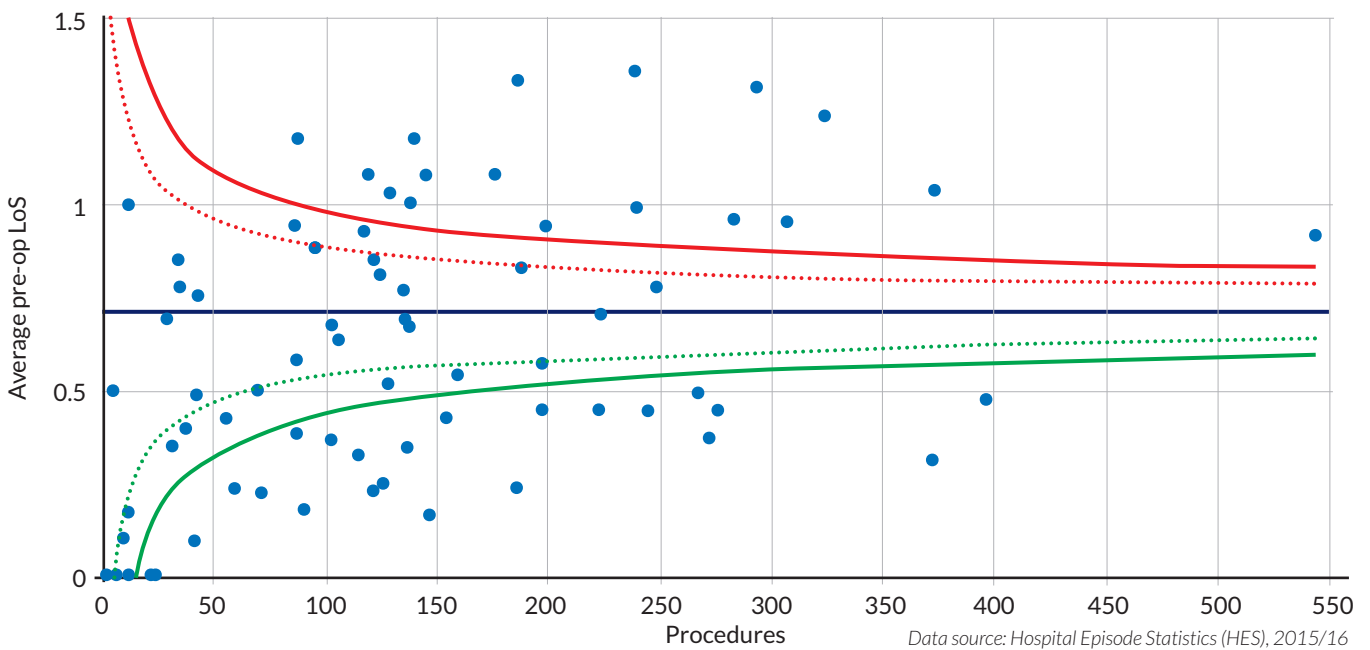
Pre-operative length of stay

We found considerable variation and considerable room for improvement in pre-operative length of stay for non-elective treatment.

As Figure 11 shows, the variation is most stark in medium-sized units with a workload of 150 to 300 cases per year.

Reasons for the variation could include theatre capacity and human resources. Another driver could be deferment until the patient is fit for surgery, for example if they have had a head injury or are intoxicated. It has not been possible to explore this further as there is no requirement to report the amount of time the non-elective patient has waited once they are fit for surgery.

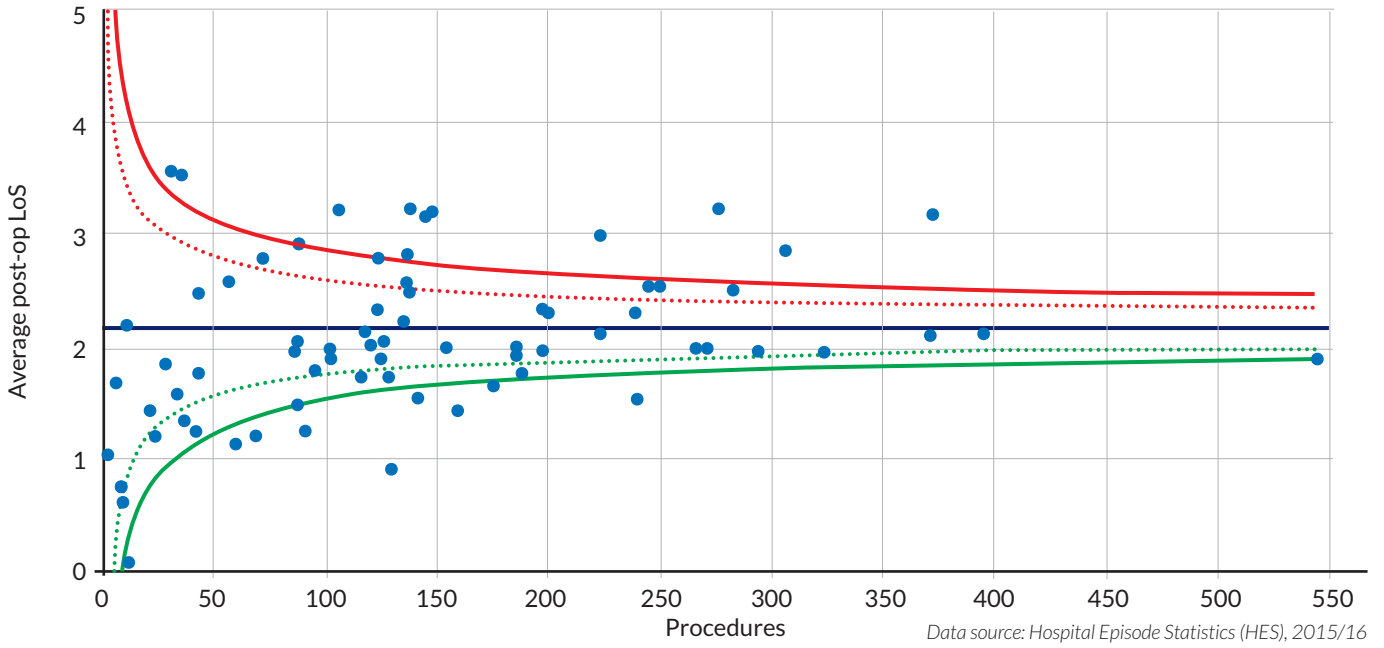
Figure 11: Average pre-operative length of stay for non-elective oral and maxillofacial treatment



Post-operative length of stay

The variation in post-operative length of stay is less stark, but there is still clear room for improvement.

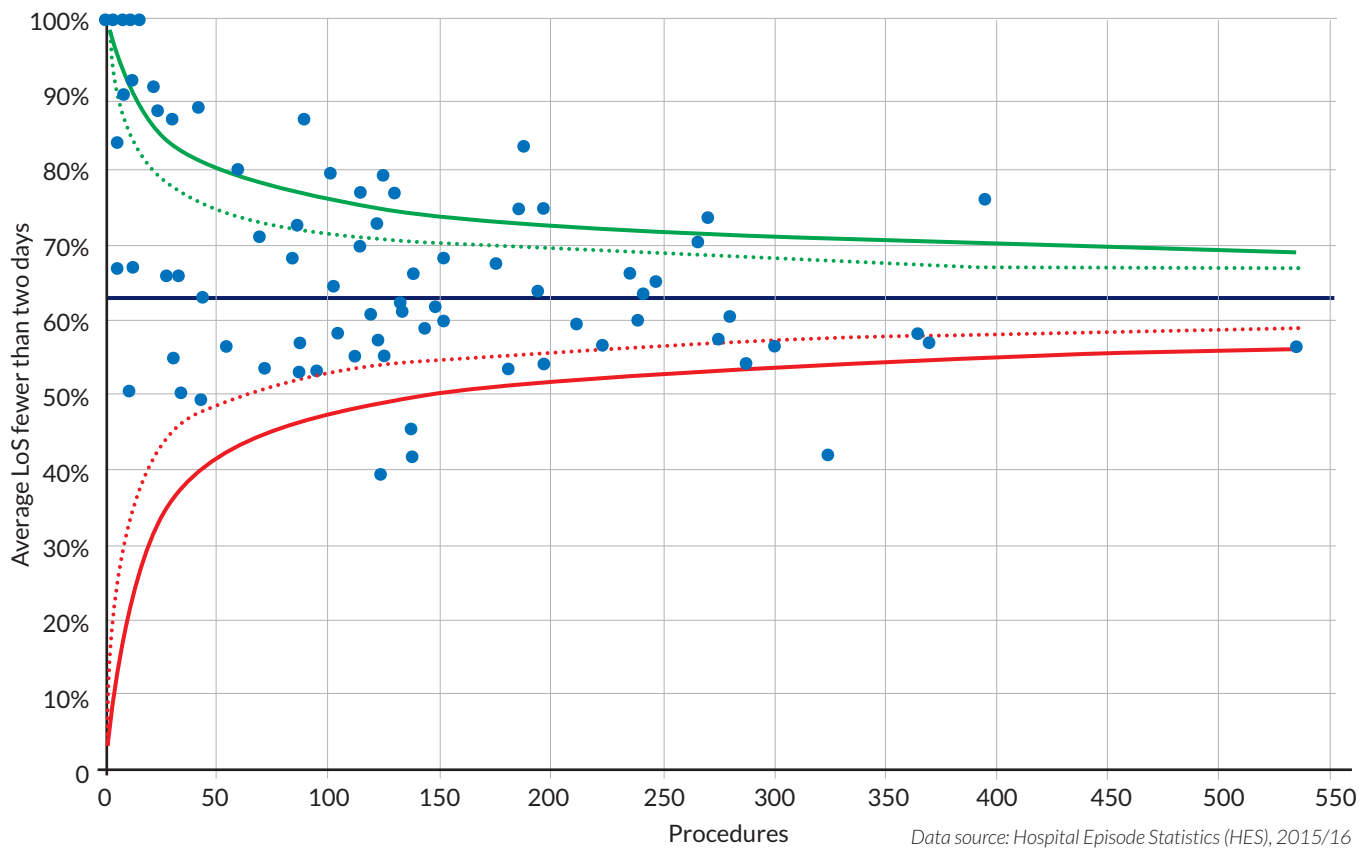
Figure 12: Average post-operative length of stay for non-elective oral and maxillofacial treatment



Overall length of stay

There is significant unwarranted variation in overall length of stay between comparable services. Differences in locality, deprivation, comorbidity and other aspects of casemix cannot account for a 40% difference in the performance of two comparably-sized units performing surgery of the same type.

Figure 13: Average overall length of stay of fewer than two days for non-elective oral and maxillofacial treatment
 Excludes complex polytrauma to ensure that workload is largely comparable.



Emergency theatre capacity

Most oral and maxillofacial non-elective cases fall into category 3 (Expedited) of the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) classification of intervention. This means oral and maxillofacial non-elective cases are liable to cancellation should more urgent work need to go to the operating theatre. (The exception is for cases with airway or major haemorrhage risk, which rapidly go to the operating theatre.)

Almost all of the providers we spoke to noted a lack of emergency theatre capacity as an issue.

Current approaches to managing non-elective cases

Dedicated emergency lists have been shown to reduce out-of-hours operating, as have the use of elective lists for emergency work.^{39,40}

We found only a few oral and maxillofacial units have dedicated trauma lists. Table 3 provides examples of different approaches to managing non-elective cases.

³⁹ Impact of dedicated trauma lists on a maxillofacial surgical service, Edmondson et al, *British Journal of Oral and Maxillofacial Surgery* 38(5) 492-495, 2000.

⁴⁰ Results of the centralisation of adult emergency oral and maxillofacial surgical services at the University Hospital, Birmingham, James et al, *British Journal of Oral and Maxillofacial Surgery* 44(5) 402-405, 2006.

Table 3: Examples of current approaches to managing non-elective cases

Provider	Approximate annual non-elective admissions	Current approach of oral and maxillofacial teams to managing non-elective cases
Bradford	800	Makes a daily endeavour to get the first slot of the day in the emergency theatre.
East Lancashire	750	Runs three dedicated emergency lists per week.
Oxford	600	Deliberately sets aside capacity on elective lists.

Surgeon availability

In units with low levels of non-elective work there is little justification for an emergency list or to establish a surgeon-of-the-day/week free from other activity.

The result is that even if a slot becomes available there may not be a surgeon to utilise it.

Day-case emergency work

We spoke with providers about day-case emergency work. The general feeling is that this is difficult to plan without having a dedicated theatre slot.

Some units are assessing patients and sending them home to come back for surgery on a planned session. This has led to an increase in facial fractures being treated on a day-case basis. However, in the absence of a dedicated emergency list, patients are put on an elective list, which has the effect of reducing elective capacity in an unplanned way.

It has been calculated that to carry out the majority of oral and maxillofacial emergency work on a trauma list would require three lists per week per one million population.⁴¹

READMISSION RATES

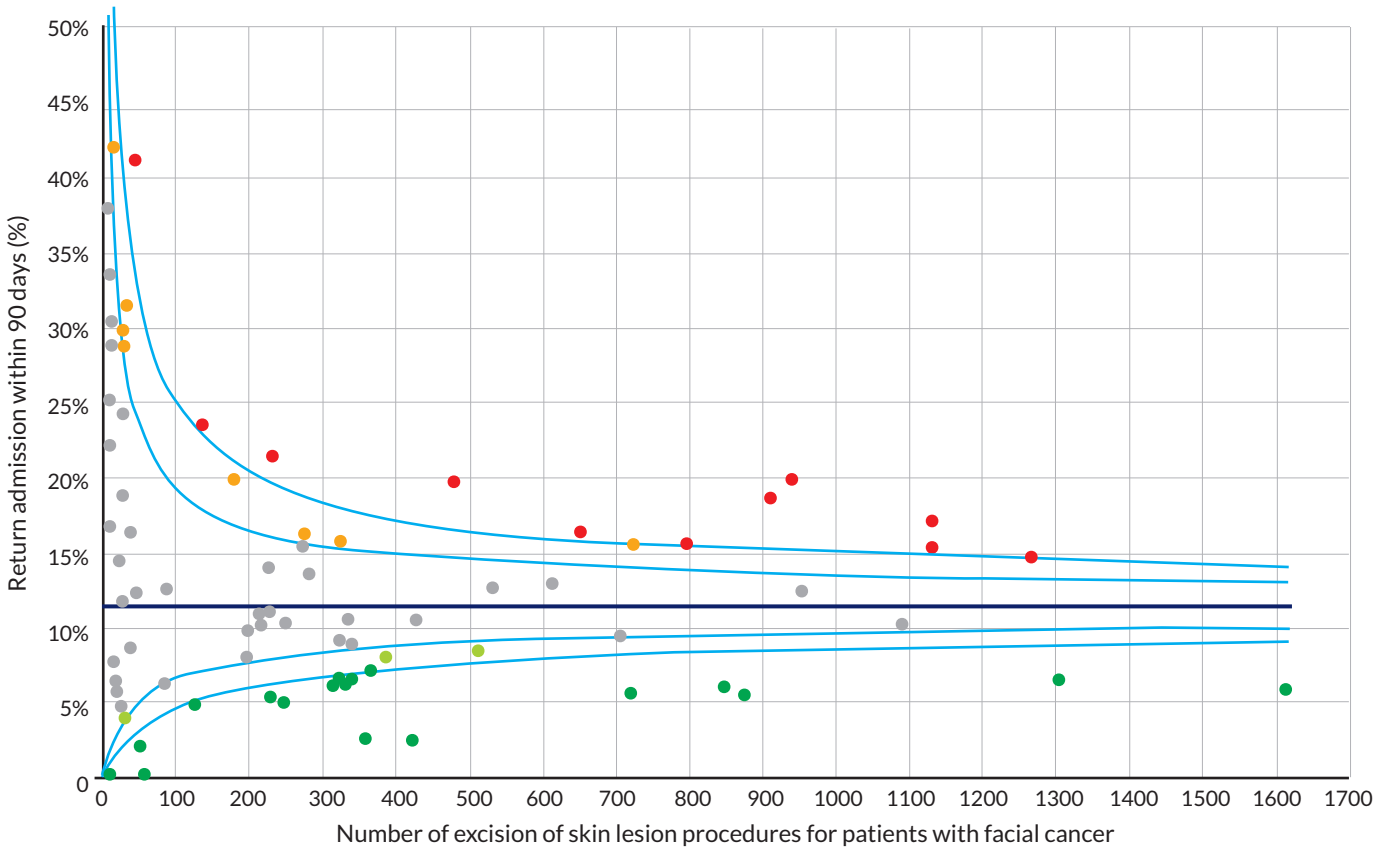
We found surprisingly high readmission rates and high levels of variation in some areas of practice. There are a number of possible reasons for readmissions, for example the need for planned or unplanned further surgery. However it is difficult to explain the wide range of variation seen in the examples we looked at in figures 14, 15 and 16.

When we explored this further during our deep dive visits, units were generally unaware that the rates were high and were unable to explain why this was the case.

Examples of variation in readmission rates

Head and neck skin cancer involving excision of skin lesion

Figure 14: Readmission within 90 days in patients with head and neck skin cancer involving excision of skin lesion



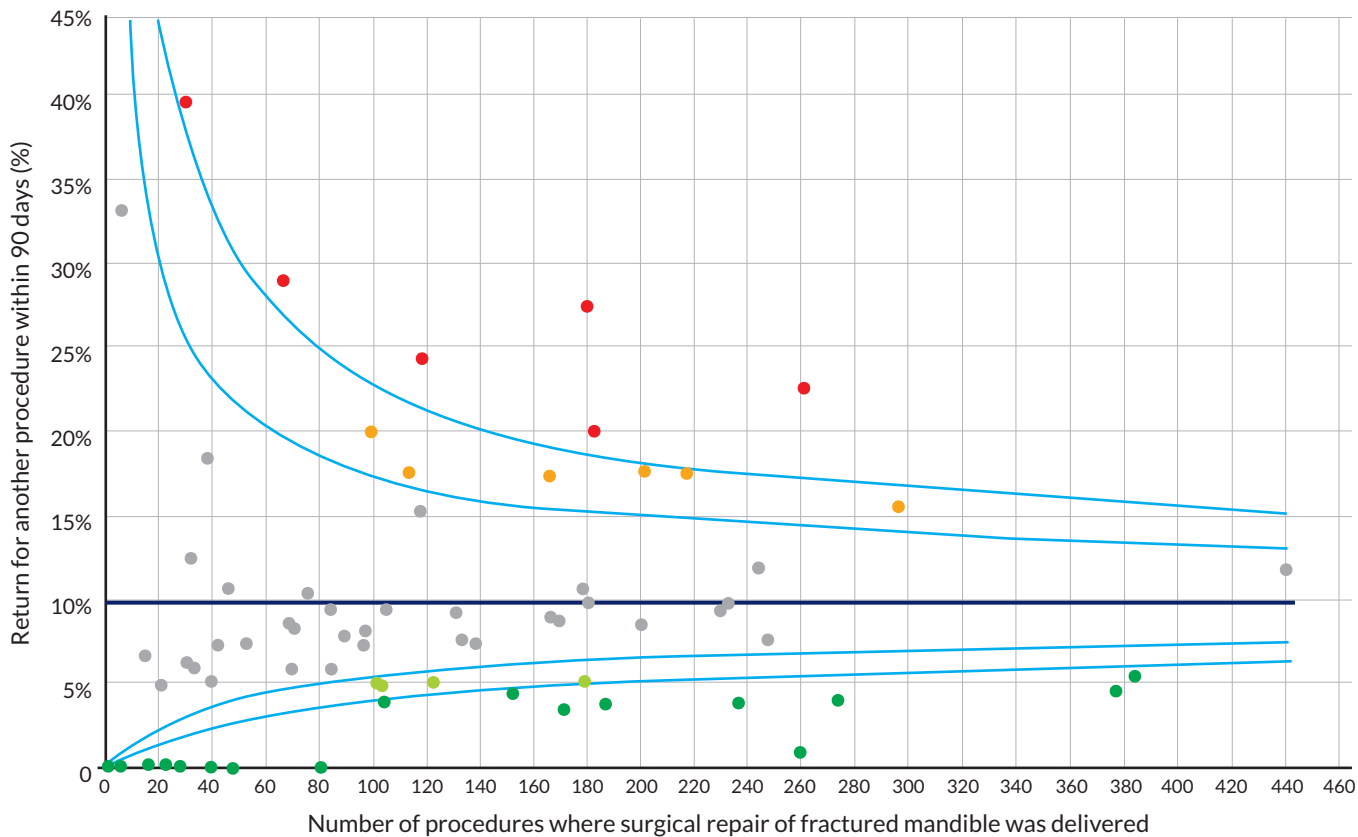
Data source: Hospital Episode Statistics (HES), Apr 2014–Mar 2016

Figure 14 shows the considerable variation in readmission within 90 days for head and neck skin cancer involving excision of skin lesion. A number of units have high levels of readmission within 90 days.

Patients with facial skin cancers often have more than one lesion. However, this would not seem to be the reason for the high readmission rates given that there is such variation (with the same pattern observed in both large and small units).

Readmission within 90 days in patients with a mandible fracture

Figure 15: Readmission within 90 days in patients with a mandible fracture

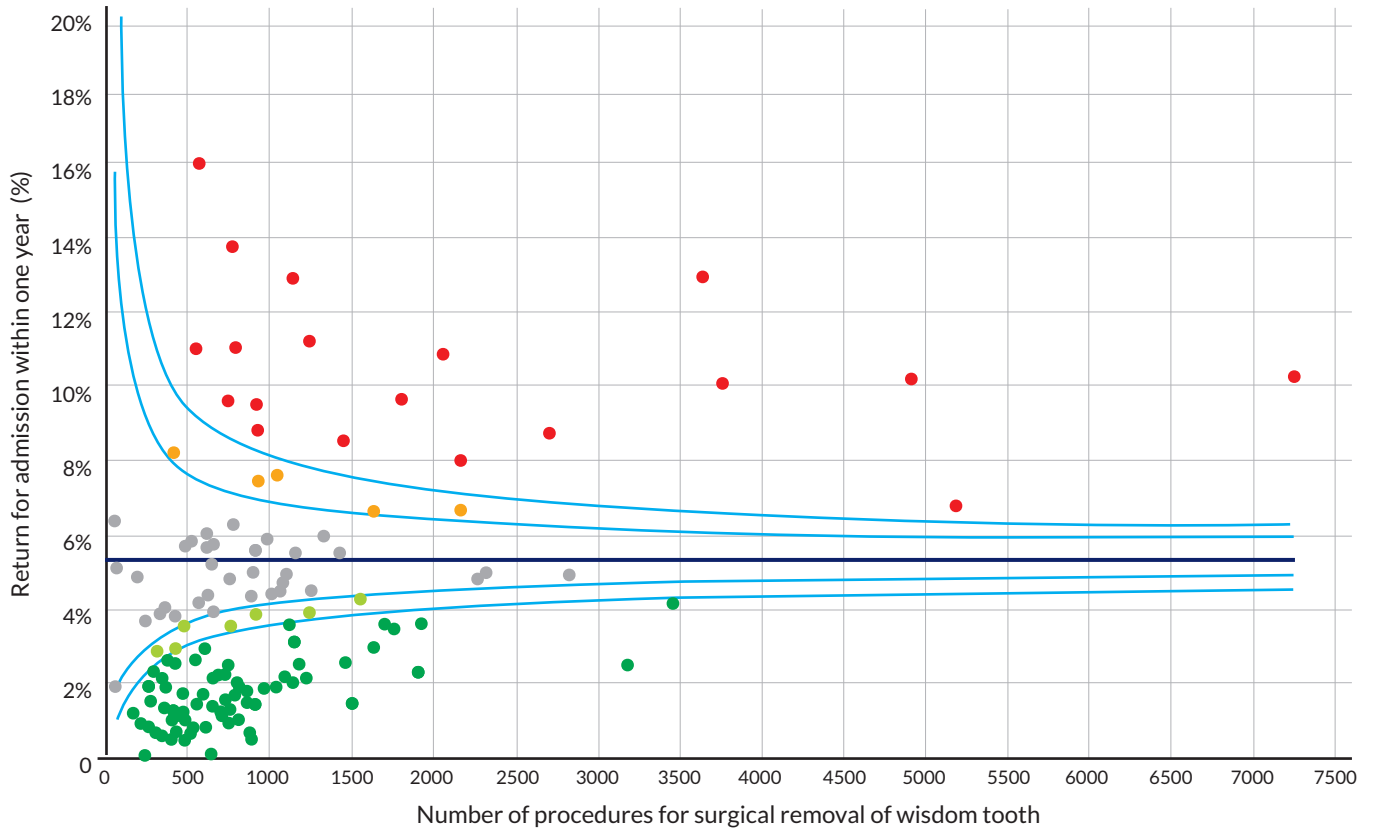


Data source: Hospital Episode Statistics (HES), Apr 2014–Mar 2016

Admission within one year after wisdom tooth removal

Figure 16 may indicate that patients are having treatment in a staged manner. However, during our deep dive visits, units were generally unable to explain this variation.

Figure 16: Return for another admission within one year of discharge in patients who have had a wisdom tooth removed
Patient under care of oral surgeon or oral maxillofacial surgeon



Data sources: Number of procedures: Hospital Episode Statistics (HES), Apr 2013–Mar 2015;
Returns after procedures: Hospital Episode Statistics (HES), Apr 2013–Mar 2016

Recommendations

Recommendation	Actions	Owners	Timeline
10. Explore how the number and types of non-surgical out-patient appointments can be reviewed.	10A: Understand if there are diagnostic codes that can be used to help record non-surgical out-patient appointments, and what the implications of introducing these may be.	GIRFT, NHS Improvement, NHS Digital, NHS England	Substantial progress by December 2019
	10B: Introduce codes (depending on finding of 10a).	GIRFT, NHS Improvement, NHS Digital, NHS England	December 2020
11. Improve understanding of follow-up rates and take action accordingly to reduce unwarranted variation.	11A: Audit causes of current local follow-up rates.	Providers	By June 2019
	11B: Ensure robust follow-up protocols are in place in all clinical areas to address unwarranted variation in local follow-up rates.	The protocol should be developed jointly by providers, commissioners and GIRFT to ensure that any dependencies with primary care etc are considered.	By December 2019
	11C: Establish ongoing local audits to check that the new protocol is followed and action taken accordingly.	Providers	On completion of 11B
12. Improve theatre utilisation and use of day case for emergency care in order to reduce length of stay for non-elective patients.	12A: Add national reporting of time to theatre for non-elective oral and maxillofacial patients once they are fit for surgery to the theatre dashboard.	GIRFT, NHS Improvement, NHS England	Significant progress made by December 2020
	12B: Review variation in time to theatre and set a best practice target.	NHS Improvement, NHS England	Dependent on 12A
	12C: Align with the development of the local networks (recommendation 7). Develop: <ul style="list-style-type: none"> • specialty-specific emergency lists in larger units • dedicated time in the general emergency theatre in smaller units. 	GIRFT, NHS Improvement, NHS England	In conjunction with recommendation 7
	12D: Explore the feasibility of including oral and maxillofacial trauma procedures in the BADS data directory.	GIRFT, BADS, BAOMS	July 2019
13. Improve understanding of readmission rates and take action accordingly to reduce unwarranted variation.	13A: Audit causes of current local readmission rates.	Providers, GIRFT, NHS England	By June 2019
	13B: Develop an action plan and ensure a robust standard protocol is in place.	Providers, GIRFT, NHS England	Dependent on 13A, by December 2019
	13C: Establish ongoing local audits to check that the new protocol is followed and take action accordingly.	Providers, commissioners, GIRFT, NHS England	On completion of 13B

Theme 5: Litigation

Reducing litigation

As well as addressing variation in clinical practice, each GIRFT review assesses the impact and causes of litigation.

Giving providers and clinical staff the opportunity to learn from best practice, claims, complaints, serious untoward incidents (SUIs) and inquests will help improve patient care, reduce length of stay and reduce the frequency of incidents. In turn, this will lead to reduced costs, both in terms of litigation itself and of managing complications related to incidents.

Clinical negligence claims in hospital dentistry and oral and maxillofacial surgery

NHS Resolution data shows that clinical negligence claims in hospital dentistry and oral and maxillofacial surgery were estimated to cost between £7.7m and £33.8m per year in the five years from 2012/13 to 2016/17.

Variation in average litigation costs

We found wide variation between providers in the average cost of litigation per hospital dentistry and oral and maxillofacial surgery admission or out-patient procedure.

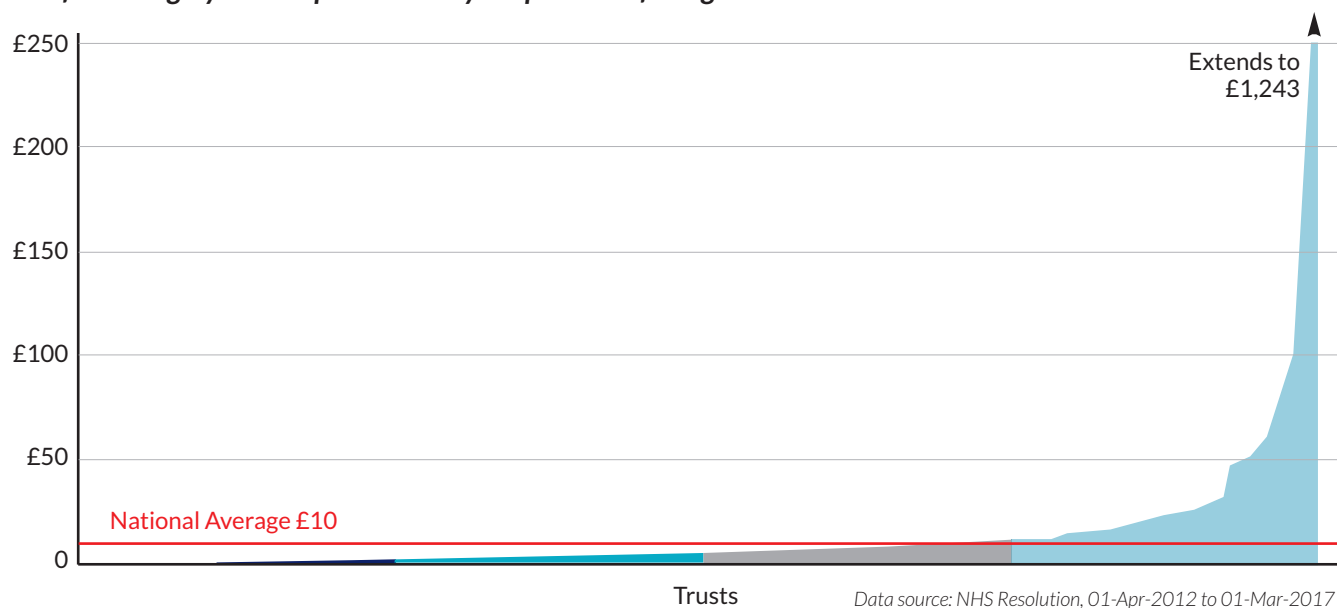
While the average across all providers is £10 per admission, the best performer achieves an average cost of £0 per admission. At the other end of the scale, one provider generates an average of £1,243 of costs per admission. This figure is significantly greater than at other providers due to the high number of paediatric cases, which tend to generate higher costs.

About the data

Due to the crossover in claims coding and activity coding between hospital dentistry (consultant led dental specialties working in secondary care) and oral and maxillofacial surgery, we felt the soundest methodological approach was to group them together for the purposes of this section.

We did this because we know that some dentoalveolar procedures carried out by oral or maxillofacial providers will have been incorrectly coded as hospital dentistry.

Figure 17: Variation between trusts in estimated litigation costs per admission or out-patient procedure for oral and maxillofacial surgery and hospital dentistry – in patients of all ages



Denominator includes out-patient procedures or day-case, elective and emergency admissions for oral and maxillofacial surgery and hospital dentistry surgery, for patients of all ages.

Claims trends and causes

There has been an overall increase in volume and estimated costs of claims over the five-year period from 2012/13 to 2016/17. More encouragingly, the last two years have started to see a fall.

Table 4: Volume and cost of medical negligence claims against oral and maxillofacial surgery and hospital dentistry – 2012/13 to 2016/17

Year	Number of claims	Percentage change in number of claims on previous year	Total costs - £m (including estimated and reserve values)	Percentage change in total costs on previous year
2012/13	182	-	£7.7m	-
2013/14	218	+19.78%	£9.8m	+27.11%
2014/15	330	+51.38%	£33.8m	+245.84%
2015/16	237	-28.18%	£12.7m	-62.47%
2016/17	234	-1.27%	£10.1m	-20.19%
Total	1,201	-	£133.2m	-

Data source: NHS Resolution, 2012/13 to 2016/17

Table 5: Most common causes of medical negligence claims against oral and maxillofacial surgery and hospital dentistry – 2012/13 to 2016/17

Cause	Number of claims	Percentage of claims
Judgement/timing	714	59.45%
Unsatisfactory outcome to surgery	231	19.23%
Fail to warn/informed consent	150	12.49%
Interpretation of results/clinical picture	111	9.24%
Wrong-site surgery	64	4.43%

Data source: NHS Resolution, 2012/13 to 2016/17

Informed consent

There were 150 claims directly identified as failure to warn/informed consent. However, the impact of lack of informed consent is more significant because it also played a role in many claims that were attributed to unsatisfactory outcome of surgery.

Many of these claims are clearly avoidable since an effective consent process would see an informed patient involved in shared decision-making.

Never events

It is concerning that ‘foreign body left in situ’ resulted in 15 claims and that wrong-site surgery is among the top five causes of claims.

These events, along with ‘wrong implant/prosthesis’, represent system failure and are patient safety issues that can be eradicated by more diligent organisation and closer adherence to tools including the World Health Organisation checklist and National Safety Standards for Invasive Procedures (NatSSIPs).

Retained foreign object post-operation

The *Revised Never Events Policy and Framework* established in 2012 recognises ‘foreign body left in situ’ and ‘retained instrument post-operation’ in one never event category: ‘retained foreign object post-operation’. This event includes retention of any items (such as swabs, needles, instruments and guide wires) that should be subject to a fundamental formal counting/checking process at the start of a procedure and before completion.

Wrong site surgery

Wrong site surgery includes removal of the wrong tooth. Wrong tooth extraction is the most common wrong site surgery never event.^{42,43}

⁴² *Wrong tooth extraction: an examination of ‘Never Event’ data*, Pemberton MN et al, *BJOMS* Vol. 55 (2) 187-88 2017

⁴³ *Provisional publication of never events reported as occurring between 1 April and 31 August 2018*. https://improvement.nhs.uk/documents/3243/Provisional_publication_-_NE_1_April_to_31_August_2018_V_4.pdf

Reducing claims

Improving training to eliminate avoidable causes of claims

Several of the most common causes of claims are avoidable.

Issues of poor judgement and timing often relate to inexperience and poor decision-making, which could be addressed through training.

Improving record keeping

There is some evidence that claims cannot be defended effectively because providers do not have the necessary documentary evidence.

Collecting and keeping this evidence would improve the ability to prove that processes have been followed correctly and that patients' interests have been considered.

Sharing details of the existence and cost of litigation claims

During our deep dive visits, it became clear that many providers had little knowledge of the claims against them. This included providers with high litigation costs per admission as well as those at the low end.

Sharing knowledge of claims would help providers learn lessons that would improve future practice.

Further work is needed to analyse and share claims data – at both a local and national level – in order to improve patient care.

Recommendation

Recommendation & Actions	Owners	Timeline
14. Implement GIRFT 5 point plan for reducing litigation costs.	Providers	See separate plan below
14A: Assess benchmarked position for estimated litigation cost per unit of activity compared to the national average.	Clinicians, trust management	Immediate action
14B: Review claims submitted to NHS Resolution to confirm correct coding. Inform NHS Resolution of any claims that are not coded correctly at CNST.Helpline@resolution.nhs.uk	Clinicians, trust management, trust legal department, claims handlers	On completion of 14A
14C: Review claims in detail, including expert witness statements, panel firm reports, counsel advice and medical records, to determine where patient	Clinicians, trust management, trust legal department, claims handlers. If the legal department or claims handler needs additional assistance, the trust's panel firm should be able to provide support.	On completion of 14B
14D: Triangulate claims with learning themes from complaints, inquests and serious untoward incidents (SUI). If a claim has not already been reviewed as an SUI, we recommend that this is done to ensure no opportunity for learning is missed.	Clinicians, trust management, trust legal department, claims handlers	On completion of 14A
14E: Where trusts are outside the top quartile of trusts for litigation costs per activity, GIRFT national clinical leads and regional hub directors will support them in learning from claims, including sharing examples of good practice.		For continual action

Theme 6: Procurement

PRODUCT AND TECHNOLOGY PROCUREMENT COSTS

We analysed variation in the procurement costs of products and technologies used by clinicians to identify opportunities for savings.

Although the data we were able to gather via a questionnaire was limited, the responses suggest there is significant variation in prices paid and products used. Many trusts use more than one supplier for the same product, for example for plating kits.

Patient-specific guides and implants

Having accurate surgical guides reduces time on the operating table, which reduces mortality/morbidity risk.

In cancer surgery and orthognathic surgery, many clinicians are now using patient-specific surgical guides, such as those produced by Materialise. Patient-specific implants are also available for cancer surgery and trauma surgery.

Patient-specific guides and implants can be expensive to purchase as they are obviously used on a case-by-case basis. In response to the costs, trusts with larger maxillofacial labs are increasingly acquiring their own 3D printers with the aim of producing patient-specific guides and implants themselves. However, using such technology requires medical engineering skills and there is a danger that 3D printers are purchased across the NHS without the skills needed to use them to their full potential being in place.

Computerised planning and surgical guides in orthognathic surgery

In orthognathic surgery, there is increased use of computerised planning and patient-specific occlusal wafers.

However, the evidence suggests this is only necessary for complex cases.

Plating systems in trauma, orthognathic and cancer surgery

Plating systems are the most commonly used product in trauma, orthognathic and cancer surgery.

The questionnaire data suggests there is variation in the products used and prices paid.

Mouth mirrors

Mouth mirrors are used for nearly every out-patient case.

Some clinicians use re-useable mirrors while others use disposables. There is currently no clear evidence on which is most cost effective and this should be investigated further.

What the Purchase Price Index and Benchmarking tool (PPIB) data shows

PPIB data shows that the NHS spends around £5m a year on specialty-specific products used in oral and maxillofacial surgery.

There is significant unwarranted variation in prices, products and brands.

Prices

There is £1m variation between the highest and lowest prices paid for these specialty-specific products. This high level of variation is despite the fact that around 90% of the spend goes to just three suppliers (DePuy Synthes, Stryker and KLS Martin) with a further 20-30 suppliers accounting for the remaining 10% of spend.

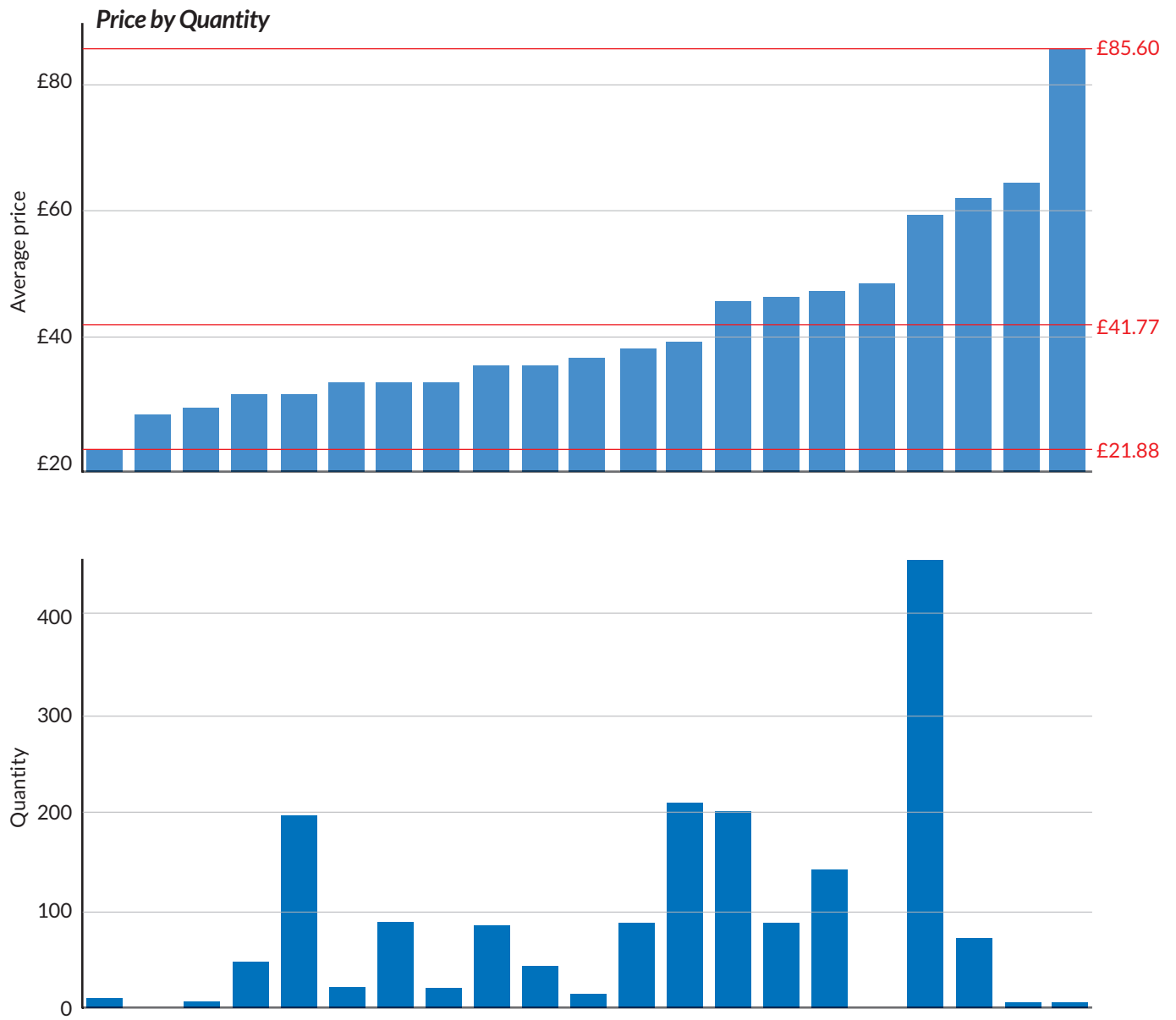
Products and brands

Around 2,000 different products and brands are used by trusts. Just 40 products account for nearly half of the spend.

There is significant price variation between brands from the same supplier and variation in the suppliers and brands used by trusts.

As an example of product price variation, we looked at prices paid for four-hole straight mandible plates, which are supplied by two suppliers covering three brands. Figure 18 shows the variation for a sample of 21 trusts. The chart clearly demonstrates the variation in prices being paid by each trust in the sample, with no correlation to volumes purchased.

Figure 18: Product price variation for four-hole straight mandible plate (two suppliers; three brands)



NHS Supply chain

NHS Supply Chain appears to cover around just 18% of the spend, so there is clear scope to rationalise, standardise and improve national procurement.

Understanding variation in procurement

Over the coming months, the GIRFT team will be working with trusts to understand more about the variation in procurement costs in oral and maxillofacial surgery and other specialties. The GIRFT programme recognises that there are often sound clinical reasons behind the device and treatment method choice, and that patient quality outcomes, product evidence and product innovation are key considerations alongside supply chain efficiency and best value.

As part of this review, the GIRFT team will provide the head of procurement at each trust with a curated Clinical Procurement Benchmarking and PPIB data-pack. The GIRFT team will ask procurement heads for validation and feedback before drawing any conclusions or making specific recommendations.

Category towers

The Department of Health and Social Care is expecting the new procurement category towers (set out in the future operating model for NHS Supply Chain) to help trusts reduce the level of variation in procurement by flexing the buying power of the NHS.

The GIRFT team will be working closely with trusts and using the new category towers to support the rationalisation and standardisation of procurement.

Recommendation

Recommendation & Actions	Owners	Timeline
15. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.	Providers	See separate plan below
15A: Use sources of procurement data, such as PPIB and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.	GIRFT	February 2019
15B: 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	March 2019
15C: 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.	Trusts, STPs, GIRFT	April 2019

ACTIVITY OPPORTUNITIES AND NOTIONAL FINANCIAL OPPORTUNITIES

This report sets out a series of ways to improve the delivery of NHS oral and maxillofacial services using the existing resources available to the specialty.

Potential benefits

Improvements to the patient experience would be seen in shorter stays, fewer admissions and fewer repeat visits – and potentially shorter wait times. All of these also benefit providers, reducing the costs of common procedures and pathways and freeing up resource for other purposes.

While the impact in some areas is hard to measure, in others there is a clear tangible benefit.

Notional financial opportunity

The notional financial opportunity could be between £14m and £25m a year. This opportunity is in addition to the potential cost savings in procurement.

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 6) and provide an indication of what may be possible. The metrics do not represent a comprehensive set of all opportunities discussed in the report.

NB. 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 that exists 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 6: Activity opportunities and notional financial opportunities in oral and maxillofacial services

Improvement (opportunities are per annum)	National mean average or better			Top quartile or better		
	Target	Activity opportunity	Gross notional financial opportunity	Target	Activity opportunity	Gross notional financial opportunity
Reduce adult follow-up to new ratio for attendances under the care of an oral surgeon or oral and maxillofacial surgeon <i>Activity source: HES April 2015 - March 2016</i>	0.74	42,200 attendances	£4,580k	0.59	62,220 attendances	£6,755k
Reduce child follow-up to new ratio for attendances under the care of an oral surgeon or oral and maxillofacial surgeon <i>Activity source: HES April 2015 - March 2016</i>	0.89	7,960 attendances	£865k	0.80	9,160 attendances	£995k
Reduce pre-operative average length of stay for non-elective oral and maxillofacial treatment (note: top quartile calculation excludes providers with fewer than 30 spells per annum) <i>Activity source: HES April 2015 - March 2016</i>	0.71	1,605 days	£630k	0.41	3,565 days	£1,400k
Reduce post-operative average length of stay for non-elective oral and maxillofacial treatment (note: top quartile calculation excludes providers with fewer than 30 spells per annum) <i>Activity source: HES April 2015 - March 2016</i>	2.20	2,625 days	£1,030k	1.76	5,500 days	£2,160k
Reduce readmissions within 90 days in patients with head and neck skin cancer involving excision of skin lesion (note: top quartile calculation excludes providers with fewer than 20 spells in two years) <i>Activity source: HES April 2015 - March 2016</i>	11.3%	305 readmissions	£182k	6.2%	715 readmissions	£429k
Reduce readmissions within 90 days in patients with a mandible fracture (note: top quartile calculation excludes providers with fewer than 20 spells in two years) <i>Activity source: HES April 2015 - March 2016</i>	10.0%	115 readmissions	£134k	4.9%	240 readmissions	£282k
Reduce return for another admission within one year of discharge in patients who have had a wisdom tooth removed <i>Activity source: HES April 2015 - March 2016</i>	5.3%	1,065 spells	£507k	1.5%	2,810 spells	£1,340k
*Increase proportion of wisdom tooth removals undertaken as outpatient procedure, rather than day case (note: top quartile calculation excludes providers with fewer than 50 spells in one year) <i>Activity source: HES April 2015 - March 2016</i>	27.3%	8,980 procedures	£6,170k	42.6%	16,420 spells	£11,280k

*To note these figures are an over estimation as discussed on page 22 in the section on **Out-patient and day-case coding: the need for clarity**

About the GIRFT programme

Getting It Right First Time (GIRFT) is a national programme designed to improve medical care within the NHS.

Funded by the Department of Health and Social Care and jointly overseen by NHS Improvement and the Royal National Orthopaedic Hospital NHS Trust, 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 to 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 37 different areas of clinical 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 national report, that 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.

GIRFT and other improvement initiatives

GIRFT is part of an aligned set of work streams within the Operational Productivity Directorate of NHS Improvement. It 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. As well as support from the Department of Health and Social Care and NHS Improvement, it has the backing of the Royal Colleges and professional associations.

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 also works with a number of wider NHS programmes and initiatives which are seeking to improve standards while delivering savings and efficiencies, such as NHS RightCare, acute care collaborations (ACCs), and sustainability and transformation partnerships (STPs).

Implementation

GIRFT has developed a comprehensive implementation programme designed to help trusts and their local partners to address the issues raised in trust data packs and the national specialty reports to improve quality. GIRFT regional hubs provide support at a local level with clinical and project delivery leads able to visit trusts and local stakeholders in each region on a regular basis. They advise on how to reflect the national recommendations into local practice and support efforts to deliver any trust specific recommendations emerging from the GIRFT visits. These teams also help to disseminate best practice across the country, matching up trusts who might benefit from collaborating in selected areas of clinical practice.

Through all its efforts, local or national, the GIRFT programme strives to embody the ‘shoulder to shoulder’ ethos which has become GIRFT’s hallmark, supporting clinicians nationwide to deliver continuous quality improvement for the benefit of their patients.

Acute care collaborations (ACCs)

A model of care, led by NHS trusts, to develop ways of working together to improve clinical and financial viability. For example, hospitals working together as groups or chains, specialty franchises and clinical networks.

www.england.nhs.uk/new-care-models/about/acute-care-collaboration

Adjuvant therapy

Treatment given in addition to the primary (initial) cancer treatment to lower the risk of cancer recurring.

BAPRAS

The British Association of Plastic, Reconstructive and Aesthetic Surgeons

Basal cell carcinoma (BCC)

The most common type of non-melanoma skin cancer. Sometimes referred to as 'rodent ulcers'.

Casemix

The type or mix of patients, categorised by a variety of measures, including: demographics, disease type and severity, and the diagnostic or therapeutic procedures performed.

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

Conscious sedation

Use of a drug or drugs to depress the central nervous system, enabling treatment to be carried out while maintaining verbal contact with the patient.

Comorbidity

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

Dentoalveolar surgery

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

Dentofacial

Relating to the teeth and face.

Flap failure rates

The number of instances in free flap surgery (where tissue is transferred from another part of the body) where the surgery is not successful and the transferred tissue dies.

Four-hole straight mandible plate

A type of metal plate used to treat jaw fractures or reconstruction.

Hub and spoke networks

A network arrangement between service providers.

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.

Hospital Episode Statistics (HES)

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.

ICD-10

The International Classification of Disease, is a system of medical coding created by the World Health Organization (WHO) for documenting diagnoses, diseases, signs and symptoms and social circumstances. It is a statistical classification that is used by health care providers and national and regional organisations to report/summarise an episode of care. It is mandated nationally for use across the NHS and the UK government has a commitment to report UK diagnostic statistics to WHO using ICD-10.

Integrated care systems

Advanced local partnerships taking shared responsibility to improve the health and care system for their local population.

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

Level 2

Level 2 care is defined as procedural and/or patient complexity requiring a clinician with enhanced skills and experience who may or may not be on a specialist register. This care may require additional equipment or environment standards. Level 2 case complexity maybe delivered as part of the continuing care of a patient or may require onward referral.

Draft Framework of Oral Surgery Complexity Levels and Procedures:

<https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/09/guid-comms-oral.pdf>

Mandibular osteotomy

Surgery to the lower jaw to correct problems in the relationship between the lower jaw and upper jaw.

Maxillary osteotomy

Surgery to the upper jaw to correct problems in the relationship between the upper jaw and lower jaw.

Melanoma

A type of skin cancer that develops from skin cells called melanocytes.

Model Hospital

A free digital tool provided by NHS Improvement to enable trusts to compare their productivity and identify opportunities to improve.

The tool is designed to support NHS provider trusts to deliver the best patient care in the most efficient way.

<https://model.nhs.uk>

National Institute for Health & 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

National Safety Standards for Invasive Procedures (NatSSIPs)

A set of high-level national standards of operating department practice designed to help all NHS organisations provide safer care and reduce the number of patient safety incidents related to invasive procedures.

NatSSIPs cover all invasive procedures including those performed outside the operating department.

NatSSIPs are prepared by NHS England Patient Safety Domain and the National Safety Standards for Invasive Procedures Group.

NFORC

UK's National Facial Study Centre, funded by Saving Faces - The Facial Surgery Research Foundation.

NHS Data dictionary

A reference point for approved Information Standards Notices to support health care activities within the NHS.

www.datadictionary.nhs.uk

Neck dissection node yield

The number of lymph nodes excised in neck dissection, which is a surgical procedure to remove lymph nodes from the neck on one or both sides.

NHS e-Referral Service (formerly Choose and Book)

An e-booking system that gives patients a choice of place, date and time for their first hospital or clinical appointment.

NHS Resolution (formerly NSH Litigation Authority)

An arm's length body of the Department of Health that provides expertise to the NHS to resolve negligence concerns, share learning for improvement and preserve resources for patient care. www.resolution.nhs.uk

NHS RightCare

A national programme committed to delivering the best care to patients, reducing unwarranted variation, making the NHS's money go as far as possible and improving patient outcomes. Supported by NHS England.

www.england.nhs.uk/rightcare/

NHS Supply chain

An organisation that provides healthcare products and supply chain services to the NHS, including procurement, logistics, e-commerce, and customer and supplier support.

www.supplychain.nhs.uk

NICE

See National Institute for Health and Care Excellence.

Non-elective

Emergency admission and treatment/surgery that is not pre-scheduled.

OPCS-4

The OPCS Classification of Interventions and Procedures is a statistical classification used by health care providers and national and regional organisations to report/summarise an episode of care. It is mandated nationally for use across the NHS.

Orofacial trauma

Injury related to the mouth, jaw or face.

Orthognathic surgery

Surgical correction of the position of the jaws.

Plating systems

A common product platform consisting of plates, screws and instrumentation for use in oral maxillofacial surgery.

Purchase Price Index and Benchmarking tool (PPIB)

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

Returns to theatre for flap salvage procedures

The number of patients who require further unplanned surgery after a flap salvage procedure (a procedure to save or replace a failed free flap – see flap failure rates).

Sentinel node biopsy

A procedure in which the sentinel lymph node (the hypothetical first node) is removed and examined to determine whether cancer has spread beyond a primary tumour into the lymphatic system.

Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)

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 drugs alerts.

The Department of Health and Social Care approved for SNOMED CT to be the single terminology of choice for health and care in England SCCI 0034 (2 Nov 2016) and stated all systems used within Secondary Care, Acute Care, Mental Health Services, Community Services, Dentistry and Optometry - for the direct management of care of an individual - must use SNOMED CT as the clinical terminology standard within all electronic patient level recording and communications before 1 April 2020.

Squamous cell carcinoma (SCC)

The second most common type of non-melanoma skin cancer and most common intra-oral cancer.

Surgical margins

The rim of tissue around a tumour that has been surgically removed.

Sustainability and transformation partnerships (STPs)

44 geographical partnerships, covering all of England, in which NHS providers, CCGs, local authorities and other health and care services have been tasked with developing proposals detailing how local areas will work together to improve health and care.

www.england.nhs.uk/integratedcare/stps

Temporomandibular joint disease

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

Acknowledgements

The GIRFT project is a result of the vision and enthusiasm of Tim Briggs and I would like to thank him and all the team at GIRFT for their support. In particular, I would like to thank Jamie Day, who has answered endless questions and supported me throughout the review process, and Lucy Stroud for organising all the deep dive visits, which would never have been possible without her.

Method Analytics worked to make the raw data intelligible and I give special thanks to Simon Swift, Ben Marks and Richard Oakley. BAOMS has supported this project and has given me a platform to speak – both to council and to conference. Particular thanks must go to Ian Martin, Steve Dover, Austen Smith and Patrick Magennis.

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Maire Morton

Appendix 1

NHS Standard Contract, Service Condition 28

Giving commissioners notice of changes in the way you record activity

If you intend to change the way you record activity, for example in order to correct inaccurate specialty attribution, Service Condition 28 of the NHS Standard Contract states requires you to:

- give your commissioner notice; and
- neutralise any financial impact of the change in the short term.

You can find the relevant section of the Contract at:

<https://www.england.nhs.uk/publication/nhs-standard-contract-2017-18-and-2018-19-service-conditions-full-length-may-2018/>

The Contract provisions are further explained in section 44 of the Contract Technical Guidance at:

<https://www.england.nhs.uk/publication/nhs-standard-contract-2017-18-2018-19-technical-guidance-may-2018/>



For more information about GIRFT,
visit our website: www.GettingItRightFirstTime.co.uk
or email us on info@GettingItRightFirstTime.co.uk

You can also follow us on Twitter @NHSGIRFT and
LinkedIn: www.linkedin.com/company/getting-it-right-first-time-girft

The full report and executive summary are also available to download as
PDFs from: www.GettingItRightFirstTime.co.uk