



A general dental practitioner's role in treating patients with a cleft lip and/or palate

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Abstract

The publication of the *Five Year Forward View* promoted a drive within the NHS to improve access to care for all patients, across all specialties. This article describes what would be expected of a general dental practitioner (GDP) when treating patients with a cleft lip and/or palate in primary care and when it would be appropriate to refer and work alongside specialist services at the hospital. The inspiration for this article began after an audit investigating the complexity level of treatment need of patients with a cleft lip and/or palate referred into the Adult

Restorative Clinic at Guy's Hospital. The results of the audit suggested that access to GDPs for this cohort of patients may be difficult and there may be a lack of confidence amongst GDPs with regards to what treatment they can or should provide. The article also discusses the potential of dentists with enhanced skills (DES) bridging the gap between primary and secondary care. The aim of the article is to increase the knowledge and understanding of GDPs with regards to treating patients with a cleft lip and/or palate and ultimately to improve the level of care these patients receive.

Introduction

The publication of the *Five Year Forward View* promoted a drive within the NHS to improve access to care for all patients, across all specialties.¹ Patients with a cleft lip and/or palate (CL/P) are a cohort of patients that will require multidisciplinary care from birth through to adulthood. The majority of this treatment will be carried out at one of the nine cleft services across the UK. However, general dental practitioners (GDPs) are positioned to improve access to dental treatment for these patients by providing care, both independently and alongside specialist dental services. In fact, the Clinical Standards Advisory Group (CSAG) reported that collaboration between specialists and GDPs is expected.² Despite this, 39% of parents of a child with a CL/P report finding it difficult or impossible to find an NHS dentist.³

Children with a cleft lip and/or palate

Children with CL/P have an increased risk of dental caries and as a potential consequence, children with a CL/P have an increased dmft than the general population and 48% have untreated dental caries.^{4,5} Due to the increased risk of dental abnormalities for patients with CL/P, prevention of dental disease is even more important. Pain and infection is associated with increased dental phobia and early loss of primary teeth can result in increased complexity of orthodontic treatment in the future.

The main aim of treating a child with a CL/P from a GDP's perspective is prevention of disease and encouraging a positive relationship with the dentist. A positive attitude towards dental treatment from a young age is invaluable for this cohort of patients who will undoubtedly require multiple interventions throughout life. For patients who may already be dental phobic, early referral to community or secondary care services will permit access to treatment with behavioural adjuncts, such as sedation. It is recognised that patients with a CL/P often present with different needs to the majority, with which GDPs may not be as familiar. Therefore, a referral for a second opinion from a specialist is sometimes required. Teams outside of the dental specialties that are likely to be involved in the care of a patient with a CL/P include psychologists and speech and language therapists and so, GDPs should engage with the multidisciplinary team, ensuring they

Table 1 Actions GDPs can take to support their patients with a CL/P before they become adults

Action	Aim
Regular examinations	Promote a good relationship with the dentist and prevent fear
	Reassure parents of what to expect as their child matures
	Monitor tooth development
OHI as per DBOH Toolkit, including prescription of mouthrinses and toothpastes as appropriate.	Educate parents about increased risk of dental disease in patients with CL/P
Diet advice	Prevention of dental disease
Fluoride varnish application (2.2% NaF) as per DBOH Toolkit	Establish good habits
Fissure seal molars for patients of increased caries risk	Maintain primary dentition until exfoliation
Emergency treatment	Rapidly treat trauma, pain and infection or urgently refer if required
Appropriate referrals to dental hospital/orthodontist	Early referral for treatment of disease in an uncooperative patient/when specialist or multidisciplinary care is required
	Ensure involvement of an orthodontist as a child enters the mixed dentition

Table 2 An adapted version of the Restorative Dentistry Index of Treatment Need (RIOTN) (from the Royal College of Surgeons) was used to classify the complexity of each patient referred into the department

RIOTN	Criteria
1	Assumed to be suitable for treatment within primary care
2	Could be managed in primary care but may require some aspects of their treatment looked after by a dentist with enhanced skills
3	Requires treatment within a tertiary care environment due to needing multidisciplinary treatment that cannot be provided elsewhere
Modifying factor	Increase a score by 1 point and includes: <ul style="list-style-type: none"> • Treatment in cleft site • Treatment requiring multi-disciplinary care

‘Patients with a cleft lip and/or palate (CL/P) are a cohort of patients that will require multidisciplinary care from birth through to adulthood’

Table 3 Actions that GDPs can take to support their adult patients with CL/P

Category	Expectation
Check-ups	Regular appointments to allow for prevention and maintenance before, during and after referrals
Elective treatment of disease	Stabilisation of disease before referral
	All RIOTN level 1 treatment and level 2 treatment if appropriate for teeth involved in the cleft site
	All levels of treatment for areas in the mouth other than the cleft site
Implants	Preventative advice, scaling, regular radiographs
	Re-referral if required
Crowns and bridges	Preventative advice and maintenance
	Copy of design in the instance of failure due to fatigue
	Re-referral if required
Removable prosthodontics	Denture hygiene advice, checks of underlying soft tissue, re-referral for replacement
Emergency treatment	Rapid treatment of infection within the cleft site including extirpation of pulpitic/necrotic teeth.
	Referral for treatment planning if required

receive the necessary correspondence to remain up to date throughout a patient's treatment.

Adolescents with a cleft lip and/or palate

As a child with a CL/P matures, the level of dental care they require will increase. Early involvement of an orthodontist will be required and so a referral should be made by the GDP, as a child enters the mixed dentition, if it hasn't been pre-arranged by the Cleft Team. Throughout orthodontic treatment, prevention of dental disease continues to be a responsibility of the GDP and emphasis on excellent levels of oral hygiene should be maintained.

It is not uncommon for patients with a CL/P to undergo orthognathic surgery once they reach skeletal maturity. Again, during this time regular check-ups with the GDP should be maintained. Table 1 summarises actions that GDPs can undertake to support their patients with a CL/P before they become adults.

Adults with a cleft lip and/or palate

The inspiration behind this article came following a simple audit carried out at Guy's Hospital within the Adult Restorative Department.

As part of the South Thames Cleft Service, the Adult Restorative Department at Guy's sees approximately 120 patients with a CL/P each year. With resources limited, it was deemed necessary to audit the complexity level of treatment need of the patients referred into the department. This was to ensure specialist treatment was prioritised for patients who needed it most and to facilitate the development of other avenues where patients could access treatment, for example from GDPs. The audit highlighted that some GDPs may lack knowledge or confidence when it comes to treating patients with a CL/P and so this article was written.

An adapted version of the Restorative Dentistry Index of Treatment Need (RIOTN), created by the Royal College of Surgeons, was used to classify the complexity of each patient referred into the department over three, 3-month periods (Table 2).⁶ The 'gold standard' was that only patients requiring treatment that was multidisciplinary or at a specialist level that could not be completed elsewhere (RIOTN 3) should be accepted for treatment. In addition, only treatment directly relating to the cleft site should be accepted.

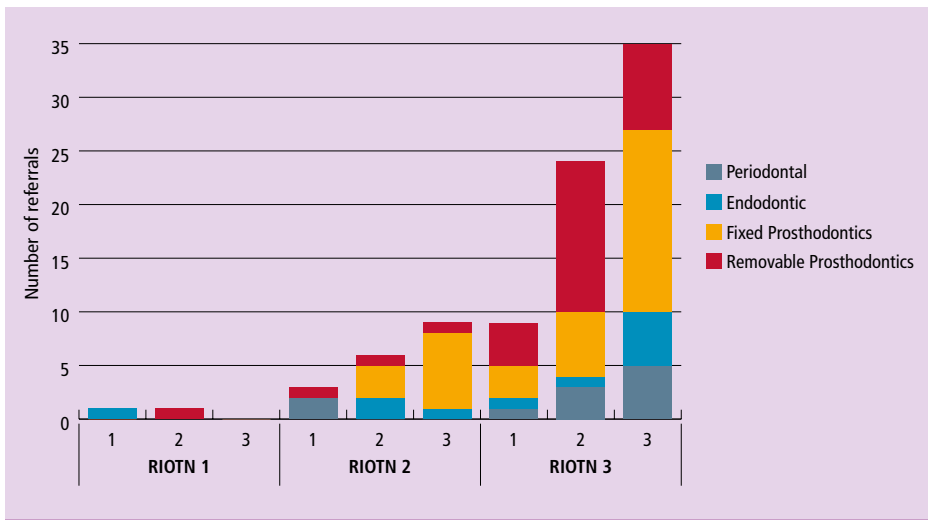


Fig. 1 A graph to illustrate the distribution of referrals of patients with a cleft lip and/or palate referred to and seen on the Adult Restorative Clinic in cycles 1, 2 and 3

‘Due to the increased risk of dental abnormalities for patients with CL/P, prevention of dental disease is even more important’

Cycle one revealed that referrals were received for patients with RIOTN scores of one, two and three. In cycles two and three, after the publication of referral criteria issued to the cleft team, the percentage of patients with RIOTN scores of one and two decreased and the referrals for patients with RIOTN scores of three increased (Fig. 1). Examples of complexity level one treatment that GDPs would be expected to undertake in a cleft site, and subsequently may not be accepted for treatment within a dental hospital, include basic periodontal treatment (when BPE ≤ 3), root canal treatment for teeth with simple canal morphology, and restorations to maintain the existing dentition.

The audit revealed that the majority of referrals received were from colleagues within the Cleft Service and few actually came from GDPs. This was suggestive that CL/P patients may not attend a primary care practitioner and may rely on all their treatment being completed in a hospital setting. GDPs should stress the importance of ongoing maintenance with themselves throughout a patient's life to enable preventative care and early identification of disease to continue, that sporadic appointments with a specialist will not allow. Maintaining contact with a patient following a referral or through contact with other family members in the same practice should reinforce this message.

The majority of referrals in cycles one and two were for removable prosthodontics, whereas in cycle three the majority of referrals were for fixed prosthodontics. The increase in referrals for fixed prosthodontics could be explained by an increased demand for fixed prostheses, including implants. Patients who receive implants within a specialist centre will be appropriately reviewed after the provision of a final restoration, usually for three to five years. After this, they would be discharged into the care of a GDP where it would be expected they would receive regular maintenance, including scaling, oral hygiene advice and annual radiographs to assess bone levels and to check for pathology. In the instance of pathology relating to the implants or a deterioration of the restorations, it would be expected that the GDP refers back to the service that initially provided the implant.

Similarly, with other indirect restorations such as crowns and bridges, a GDP would be expected to monitor for disease and provide preventative advice. However, with crowns and bridges falling more comfortably into the

remit of a primary care practitioner, GDPs may be in a position to act should a treatment fail, especially in the first instance. This could include recementing a debonded restoration or simply copying the design for a crown or bridge should a restoration fail due to fatigue. It would be appropriate to refer a patient back to the hospital should a restoration repeatedly fail and a new design may need to be considered.

Common removable prosthodontic treatments that patients with a CL/P may require for their cleft site include acrylic or cobalt chrome dentures, implant-retained overdentures and obturators. It is not expected that GDPs provide these often complex and specialised prostheses but providing denture hygiene advice, checks of underlying soft tissue and re-referring patients when a prosthesis needs replacing is expected.

Sadly, it is not uncommon to see patients with a CL/P referred into the Restorative Department with a neglected dentition and poor oral hygiene. This often had an association with a lack of confidence or self-dislike for their appearance. However, as complex restorative treatment cannot be planned until disease has been stabilised, it would be prudent for a GDP to manage this before a referral into hospital services to avoid delays.

With only nine major cleft services in the UK, GDPs are often more conveniently located for patients to travel to and are therefore more appropriately positioned to provide emergency treatment. The bone within a cleft site is extremely valuable and periapical pathology has the potential to destroy a graft, which could result in a fistula. Swift control of infection is therefore essential and when faced with a periapical infection of a tooth in a cleft site, extirpation of the pulp with the aim of preventing further pain and infection would be expected from the GDP upon presentation. A referral to the hospital would then be appropriate for the decision regarding root canal therapy or extraction.

The most recent cycle of the audit revealed that the majority of referrals into the Restorative Department were for complexity level three treatments. Dentists with enhanced skills, or DES (previously known as dentists with special interest, or DwSI) could be in a position to facilitate increased access to specialist level treatment for this cohort of patients, within a primary care setting as part of a managed clinical network. However, assessment of the confidence and experience of DES when

managing the treatment of patients with a CL/P, would need to be explored before this could be initiated.

Table 3 summarises the role of a GDP in the care of a patient with a CL/P throughout their adult life.

Conclusion

In conclusion, the GDP is an essential part of the team involved in the care of patients with a CL/P. There are many treatments that a GDP should provide in order to maximise access to dental care for this cohort of patients and to ensure that specialist services are reserved for those who need it most. DES are positioned to bridge the gap between primary and secondary care but more information regarding their confidence and knowledge of treating this cohort of patients needs to be explored.

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