



A review of daycase GA services for Special Care patients at University Hospital, Bristol

S. Ali¹, C. Sims¹, S. Foy¹, A. McIndoe², R. Yates³ and T. Brooke¹

¹Department of Special Care Dentistry, Bristol Dental Hospital, UK; ²Department of Anaesthetics, University Hospital Bristol, UK; ³Department of Restorative Dentistry, Bristol Dental Hospital, UK

This paper describes and discusses a review of adult special care dentistry day cases in a UK hospital over a two year period and makes recommendations for other such reviews and for practice.

Dental public health competencies illustrated: oral health needs assessment and evaluation of dental health services.

Key words: general anaesthesia, special care, complex medical needs, hospital, United Kingdom

Background

Special Care Dentistry seeks to address the oral health needs of people with a range of conditions which may result in their oral health being compromised either directly through the condition itself, or indirectly due to barriers to accessing care. Access to care may also be limited due to practitioners being unwilling or unable to provide routine dental care because of the lack of skills, experience, facilities or remuneration available to them (Fiske, 2006). There are a limited number of services where staff have the skills and expertise to manage Special Care patients with complex medical needs, behavioural challenges and consent issues who require treatment under general anaesthesia (GA).

Aim

This review aimed to study the types and complexity of Special Care patients treated under GA at University Hospital, Bristol, UK, and the referral pathways by which they access the service. Service provision reviews such as these allow trusts to evaluate the need for such services in a hospital setting, and provide important information for commissioning of services and for workforce planning.

Method

From retrospective data available for patients seen between April 2011 and April 2013 on Special Care GA lists at University Hospital, Bristol, the following data were collected about each patient: age, referrer, special care needs of the patient, ASA physical status classification, capacity to consent for proposed treatment under the Mental Capacity Act 2005 (UK Government, 2005), reasonable adjustments made, treatment provided under anaesthetic, ongoing care provider and follow up plan. Analyses were descriptive.

Results

The 82 patients in this study were referred to the hospital Special Care service by the following primary care providers: 71% (58) from the Community Dental Service; 22% (18) by General Dental Practitioners; 7% (6) by other professionals who had identified that these patients did not have access to routine dental care (4 from General Medical Practitioners and 2 from specialist centres). Those patients' ages ranged between 16 and 81 years with the greatest number (39%) being in the 16 to 25 year old category (Figure 1).

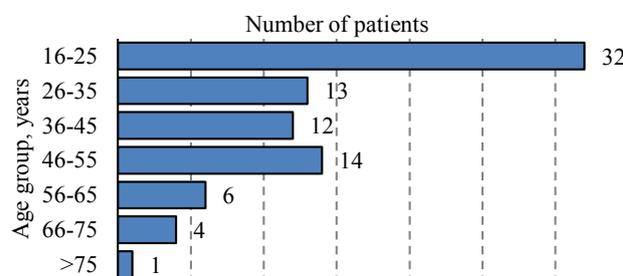


Figure 1. Age distribution of patients referred to the special care department

Regarding the medical complexity of the patients treated under GA, 89% were graded as 2 or above on the American Society of Anesthesiologists classification system (ASA, 2014) (Figure 2). This grade includes those with systemic disease potentially modifying or complicating the anaesthetic plan, or dictating that the risks of GA for the patient would outweigh the benefits of the proposed treatment. Of the patients seen, 83% were unable to themselves consent for their proposed treatment under the Mental Capacity Act and required 'best interest' discussions regarding their treatment options. Of the 82 patients, just 11 were capable of consent under the Act and one required parental consent being aged under 18.

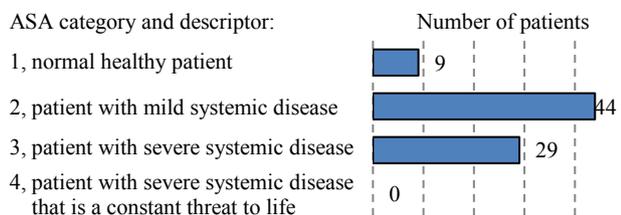


Figure 2. Distribution of patients by ASA category

The treatment provided under general anaesthetic included the provision of intra- and extra-oral radiographs to facilitate treatment planning if this was not possible prior to this stage. Figure 3 presents the range and distribution of dental treatment provided. Most patients (87%) had at least one dental extraction and 76% had at least one restoration placed. Other procedures included scaling (48% of patients), implant placement (1 patient) and soft tissue biopsy (1 patient). Four patients also had examinations from other specialities, including ear, nose and throat (ENT) and ophthalmology under the same anaesthetic. Blood tests were taken at the time of anaesthetic for 16 patients, at the requests of their General Medical Practitioners.

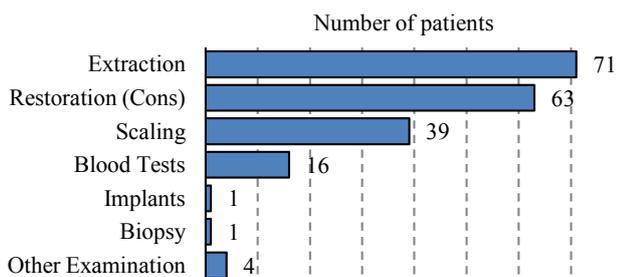


Figure 3. Frequency distribution of treatments provided under anaesthetic

Most of the patients seen over the two year study period could not consent for the proposed treatment under the Mental Capacity Act 2005. This act makes provision for those patients who are unable to make their own treatment decisions with the underlying principles of acting in a patient's best interest, supportive decision making and managing the patient in the least restrictive way possible. Best interest meetings ensure all of the principles are being kept, allowing input and support from a variety of people involved in a named patient's care, including family members, friends and carers. Independent Mental Health Advocates are appointed where there is no one else other than a paid carer to support them in making a decision about their treatment (DoH, 2007). With a named person, often the dentist, proposing treatment and acting as decision maker, all considerations will be discussed and a decision regarding treatment deemed to be in the patient's best interest made. This includes whether any other investigations or tests are required at the time of anaesthetic, such as blood tests or if a patient is awaiting special investigations from other medical teams.

Many of the patients had complex medical needs, severe learning difficulties or behavioural problems which often made it difficult to fully assess their medical or dental condition prior to the general anaesthetic. It was therefore paramount to treat them in an acute hospital setting where emergency medical support was available if required. This setting is advantageous in other ways, such as having support from high dependency and intensive care units post for those patients who need close monitoring and support post operatively.

The studied service provides one GA list per week when two patients are treated. Patients who are identified as displaying particularly challenging behaviour, or those with uncontrolled medical conditions (such as epilepsy or diabetes) are invited to attend the first slot of the morning. This allows time for pre-medication and also minimises the time for patients to be without medication or food. Private side rooms are provided for patients and their carers for clerking and confirmation of consent with both the surgeon and the anaesthetist. All patients were treated as day cases except for one who had autism and adrenoleukodystrophy and was admitted to the ward for one night to be monitored due to the risk of aspiration.

Discussion

It is thought that between 8.6 and 10.8 million people (15-18%) in Great Britain have a disability (DoH, 2000; JACSCD, 2003). Most of these patients can be, and are, managed within primary care settings. In 2008, the General Dental Council introduced the new speciality of Special Care Dentistry, a speciality intended to improve the quality of dental care delivered to individual patients or groups in society with either a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability, or a combination of these (SACSCD, 2012). The patients in this study were managed in accordance with the guidelines produced by The British Society of Disability and Oral Health (BSDH, 2009).

The speciality of special care dentistry pertains only to adolescents and adults. The provision of dental care for children with special or additional needs, if not being provided in primary care, lies within the realms of the paediatric dental speciality (SACSCD, 2012). None of the referrals included in this study's 24 month period were from the paediatric dental service which would indicate that this group of patients are being referred to primary care service once they reach the age of 16. It could be suggested that such a high number of young patients returning to secondary care for intervention so few years after discharge reflects a gap in the system. The 'transitional' years can be disruptive for this group of patients, with many who rely on residential care or respite input being moved from paediatric units to adult ones. This often involves a change in location and perhaps patients are being 'lost in transit' if changing dental care providers. A change in setting could also impact on daily routines, such as oral hygiene, which is leading to this increased need for interventional dental treatment.

Patient referrals are triaged by a specialist in special care dentistry who makes a clinical decision regarding the patient's suitability for treatment under the special care remit in a secondary care setting. Accepted patients

are invited to attend a consultant-led clinic where their clinical need is assessed, a proposed treatment plan is formulated and the modalities for delivering treatment considered. The provision of dental treatment under GA is only considered when all other treatment modalities (such as the use of sedation) have been unsuccessful or are deemed clinically inappropriate.

Patients accepted for dental treatment under GA are pre-operatively assessed by a consultant-led anaesthetics team. The anaesthetist has the skills necessary to assess, optimise and estimate risk and support patients and their carers in deciding whether to proceed with surgery and anaesthesia (AAGBI, 2010). Anaesthetists have a good understanding of Special Care Dentistry, along with the expertise and experience to deal with the medical and behavioural challenges that this group of patients pose.

The dental team at the GA session comprises a dental consultant in special care dentistry, as well as a specialist registrar. This also allows for a second opinion to be sought (BSDH, 2009). The underlying ethos of treatment is to return the patient to a stage where they can remain dentally fit for at least five years without needing a repeat GA for dental treatment. Consideration of multi-disciplinary input, such as ENT and ophthalmology examination, blood tests and vaccinations are vital in this group of patients as they may not tolerate these investigations unless anaesthetised and this avoids the necessity of a repeat GA. Liaison with the appropriate specialist teams often takes place at the dental assessment stage, via contact with the patient's general medical practitioner. Other reasonable adjustments are made, including treating patients in their own wheelchair if transfer is inappropriate or inadvisable.

The audit of these patients shows the complexity in managing the oral health treatment needs of this patient group. It demonstrates the time needed for both assessment and planning, and the need for a specialist skilled team to provide the delivery of this care in a safe and suitable environment.

Following discharge, patients are returned to their referrer for ongoing care and follow up, unless the referrer has explicitly asked for consideration of this patient receiving ongoing care within a specialist secondary care setting. All of the patients included in this study who were referred by a dental professional were discharged back to their original referrer for on-going care and maintenance. Those referred by medical colleagues who were not registered with a dentist were referred on to the community dental service to ensure regular dental care.

Recommendations

Service provision reviews should take place regularly to allow trusts to evaluate the need of such services in a hospital setting, and provide important information for commissioning of services.

Instigation of an audit investigating the need for repeat general anaesthetic for dental treatment within five years of treatment would give an indication of whether the treatment being provided in this service achieves the widely accepted, desired outcome for these patients, i.e. that they could be maintained in an adequate state of oral health for the full five years without requiring an additional sedation/GA visit.

There may be value in including in future audits the average length of time taken between initial assessment and the provision of treatment and an assessment of case-mix according to the British Dental Association (BDA) scoring system.

Further research is needed into the provision of transitional dental care for this patient group when moving from paediatric to adult care.

References

- American Society of Anesthesiologists, ASA (2014): *ASA Physical Status Classification System*. Schaumburg, IL: ASA.
- Association of Anaesthetists of Great Britain and Ireland (2010): *Pre-operative Assessment and Patient Preparation: The Role of the Anaesthetist*. London: AAGBI.
- Bateman, P., Arnold, C., Brown, R., Foster, L.V., Greening, S., Monaghan, N. and Zoitopoulos, L. (2010): BDA special care case mix model. *British Dental Journal* **208**, 291-296.
- British Society for Disability and Oral Health, BSDH (2009): *The provision of oral health care under general anaesthesia: A professional consensus statement*. London: BSDH.
- Department of Health (2000): *A conscious decision - a review of the use of general anaesthesia and conscious sedation in primary care*. London: Department of Health.
- Department of Health (2007): *Making decisions: the Independent Mental Capacity Advocate service*. London: DoH and the Office of the Public Guardian.
- Fiske, J. (2006): Special care dentistry. *British Dental Journal* **200**, 61.
- Joint Advisory Committee for Special Care Dentistry, JACSCD (2003): *A Case of Need: proposal for a specialty in special care dentistry*. Oxford: JACSCD.
- Specialist Advisory Committee for Special Care Dentistry, SACSCD (2012): *Speciality Training curriculum: special care dentistry*. London: SACSCD, Faculty of Dental Surgery and RCS(England).
- UK Government (2005): *The Mental Capacity Act*. London: The Stationery Office.