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Epidemiological profile and clinical management of patients with intellectual disability treated under general anesthesia: a 10-year retrospective study

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Original Article

Epidemiological profile and clinical management of patients with intellectual disability
treated under general anesthesia: a 10-year retrospective study

Perfil epidemiológico e manejo clínico de pacientes com deficiência intelectual tratados
sob anestesia geral: um estudo retrospectivo de 10 anos

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Resumo

Introdução: O atendimento odontológico a indivíduos com deficiência intelectual (DI) representa um desafio devido às dificuldades de cooperação e às comorbidades associadas, tornando a anestesia geral (AG) uma estratégia frequentemente utilizada para garantir segurança e eficácia ao tratamento. **Objetivo:** Analisar o perfil epidemiológico, as indicações de AG e os procedimentos odontológicos realizados em pacientes com DI atendidos sob AG no Centro de Assistência Odontológica à Pessoa com Deficiência (CAOE) da Universidade Estadual Paulista (UNESP). **Material e método:** Estudo observacional, descritivo e transversal, com coleta retrospectiva de dados de 2014 a 2024, realizado a partir dos prontuários odontológicos de 182 pacientes. Foram analisadas

variáveis demográficas e clínicas, incluindo diagnóstico principal, comorbidades sistêmicas, indicação para AG, procedimentos realizados e frequência de intervenções por paciente. **Resultado:** A média de idade foi de $25,9 \pm 12,1$ anos, com predominância do sexo masculino (57%). A maioria apresentava apenas um diagnóstico neurológico (89%), sendo o transtorno do desenvolvimento intelectual o mais frequente (43%). O principal motivo para indicação de AG foi o insucesso da sedação endovenosa (43%), seguido da necessidade de múltiplas exodontias (41%). **Conclusão:** A elevada frequência de exodontias em sessão única evidência o estágio avançado das doenças bucais e destaca a importância do ambiente hospitalar na resolutividade desses casos. Os achados reforçam a necessidade de estratégias preventivas precoces e subsidiam o planejamento de políticas públicas e protocolos assistenciais voltados à promoção da saúde bucal e da qualidade de vida dessa população.

Descritores: Atendimento odontológico para pessoas com deficiência; equipes odontológicas hospitalares; anestesia geral.

Abstract

Introduction: Dental care for individuals with intellectual disability (ID) represents a challenge due to difficulties in cooperation and associated comorbidities, making general anesthesia (GA) a frequently employed strategy to ensure safety and effectiveness of treatment. **Objective:** To analyze the epidemiological profile, indications for GA, and dental procedures performed in patients with ID treated under GA at the the Dental Care Center for People with Disabilities (CAOE) of São Paulo State University (UNESP). **Material and method:** This was an observational, descriptive, and cross-sectional study, with retrospective data collection from 2014 to 2024, based on the dental records of 182 patients. Demographic and clinical variables were analyzed, including primary diagnosis,

systemic comorbidities, indication for GA, procedures performed, and frequency of interventions per patient. **Result:** The mean age was 25.9 ± 12.1 years, with a predominance of males (57%). Most patients presented only one neurological diagnosis (89%), with intellectual developmental disorder being the most frequent (43%). The main reason for GA indication was failure of intravenous sedation (43%), followed by the need for multiple extractions (41%). **Conclusion:** The high frequency of single-session extractions highlights the advanced stage of oral diseases and underscores the importance of the hospital environment in resolving such cases. The findings reinforce the need for early preventive strategies and support the planning of public policies and care protocols aimed at promoting oral health and quality of life in this population.

Descriptors: Dental care for people with disabilities; hospital dental teams; general anesthesia.

INTRODUCTION

Individuals with intellectual disabilities present long-term physical, mental, or sensory impairments that, in interaction with social barriers, limit their full participation in society^{1,2}. Etiologies range from hereditary diseases and congenital anomalies to acquired conditions, such as systemic disorders and age-related changes³. These conditions directly affect dental management due to resistance or inability to cooperate during care⁴.

Different diagnoses impose specific challenges: autism spectrum disorder (ASD) and intellectual disabilities often involve communication deficits and disruptive behaviors; cerebral palsy is associated with sialorrhea, gastroesophageal reflux, and an increased risk of aspiration^{5,6}. Patients with Down syndrome (DS) may present congenital heart disease, obesity, and distinctive craniofacial anatomy, in addition to polypharmacy,

which complicates anesthetic management and drug interactions^{7,8}.

Such motor and cognitive limitations result in poor oral hygiene, higher incidence of caries, and dependence on caregivers⁹⁻¹¹. Added to these are barriers such as the lack of trained teams and accessible environments. Given the severity of cases, pharmacological resources become necessary, ranging from conscious sedation to general anesthesia (GA)¹². Although sedation is the first choice, its effectiveness is limited by the duration of procedures or the risk of airway compromise^{7,9}.

GA enables safe treatment of patients with severe anxiety or profound cognitive impairment^{4,5,13,14}. Its indications include clinically compromised individuals requiring extensive interventions, with contraindications generally being relative^{15,16}. Nasotracheal intubation is preferred in dentistry as it frees the oral cavity, facilitating surgical manipulation^{9,16-18}.

Treatment under GA aims at complete oral rehabilitation in a single session, with hospital discharge on the same day^{15,19,20}. In Brazil, Ministerial Ordinance No. 1.032/2010 institutionalized this type of care within the Unified Health System (SUS), ensuring hospital support for cases unfeasible at the outpatient level^{21,22}, thereby providing safety in complex procedures such as multiple extractions¹⁴.

The Dental Care Center for People with Disabilities (CAOE/UNESP), founded in 1985, is a reference in specialized care, with an annual average of 1.881 appointments. In addition to outpatient support, CAOÉ offers GA-based services to the Araçatuba region. Since 2014, these procedures have been performed in a partner hospital, with an average of 21 cases per year, promoting inclusive and humanized care. Therefore, the aim of the present study was to analyze the epidemiological profile, indications for GA, and dental procedures performed in patients with intellectual disabilities treated under GA at CAOÉ.

MATERIAL AND METHOD

Study Design

This was an observational, descriptive, cross-sectional study with retrospective data collection from 2014 to 2024, aimed at evaluating the profile of CAOEs patients with intellectual disabilities who were indicated for GA. The project was submitted to and approved by the Research Ethics Committee of the Araçatuba School of Dentistry (CAAE 86007525.4.0000.5420).

All available records within the study period were included, constituting a convenience sample. The sample size was based on the totality of eligible records, after applying the exclusion criterion related to the presence of intellectual disability. Thus, the final number of participants corresponded to the available universe, conferring a descriptive character to the study. Although no prior calculation was performed to estimate sample power, the inclusion of all records sought to maximize representativeness and reduce selection bias.

Data Collection

Data were collected through manual review of dental records of patients treated at CAOEs, conducted by two independent examiners. Retrospective information from 2014 to 2024 was obtained, focusing on dental care performed under GA.

Demographic variables such as age and gender were extracted, along with clinical information including primary diagnosis, systemic comorbidities, indication for GA, procedures performed, and frequency of interventions under GA per patient. The primary diagnosis was standardized according to the International Classification of Diseases (ICD-11), based on archived medical reports.

Records with missing information in specific variables were included in the analysis, with absent data considered as “not recorded,” without statistical imputation.

Subsequently, data were tabulated in Microsoft Excel spreadsheets for organization and analysis.

Statistical Analysis

Collected data were tabulated and organized, and descriptive analyses were performed using measures of central tendency (simple frequencies, means, and medians) and measures of dispersion (standard deviation). Age data were expressed as mean $\pm$ SD (standard deviation). Statistical analyses were performed using GraphPad Prism version 8.0c (GraphPad Software, CA, USA).

RESULT

A total of 182 medical records of CAOEs treated under GA were analyzed. Dental procedures were performed in a surgical center, under oro- or nasotracheal intubation. The mean age of patients treated under GA was 25.93 ± 12.15 years. Most of the sample was within the age range of 21 to 30 years, comprising 68 patients (37%), followed by the age range of 11 to 20 years, with 55 patients (30%) (Figure 1).

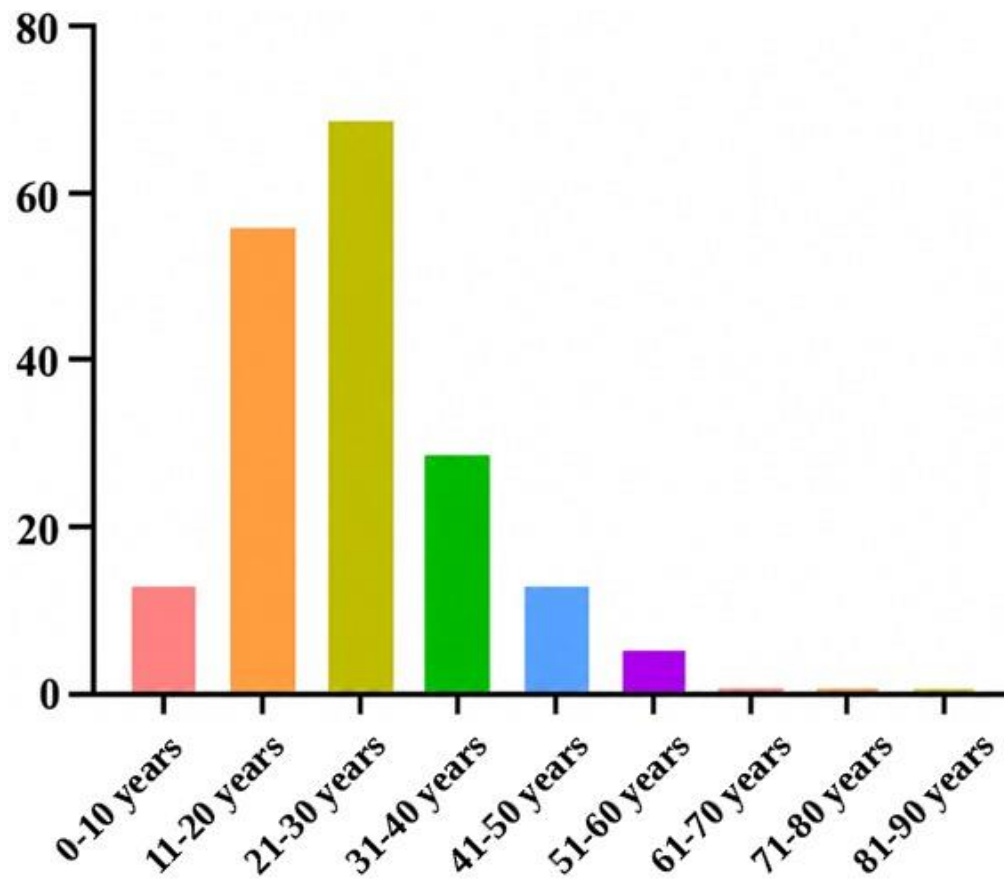


Figure 1. Age distribution of patients with special needs undergoing GA (2014–2024).

A predominance of male patients was observed, corresponding to 104 individuals (57%), compared to 78 female patients (43%; Figure 2).

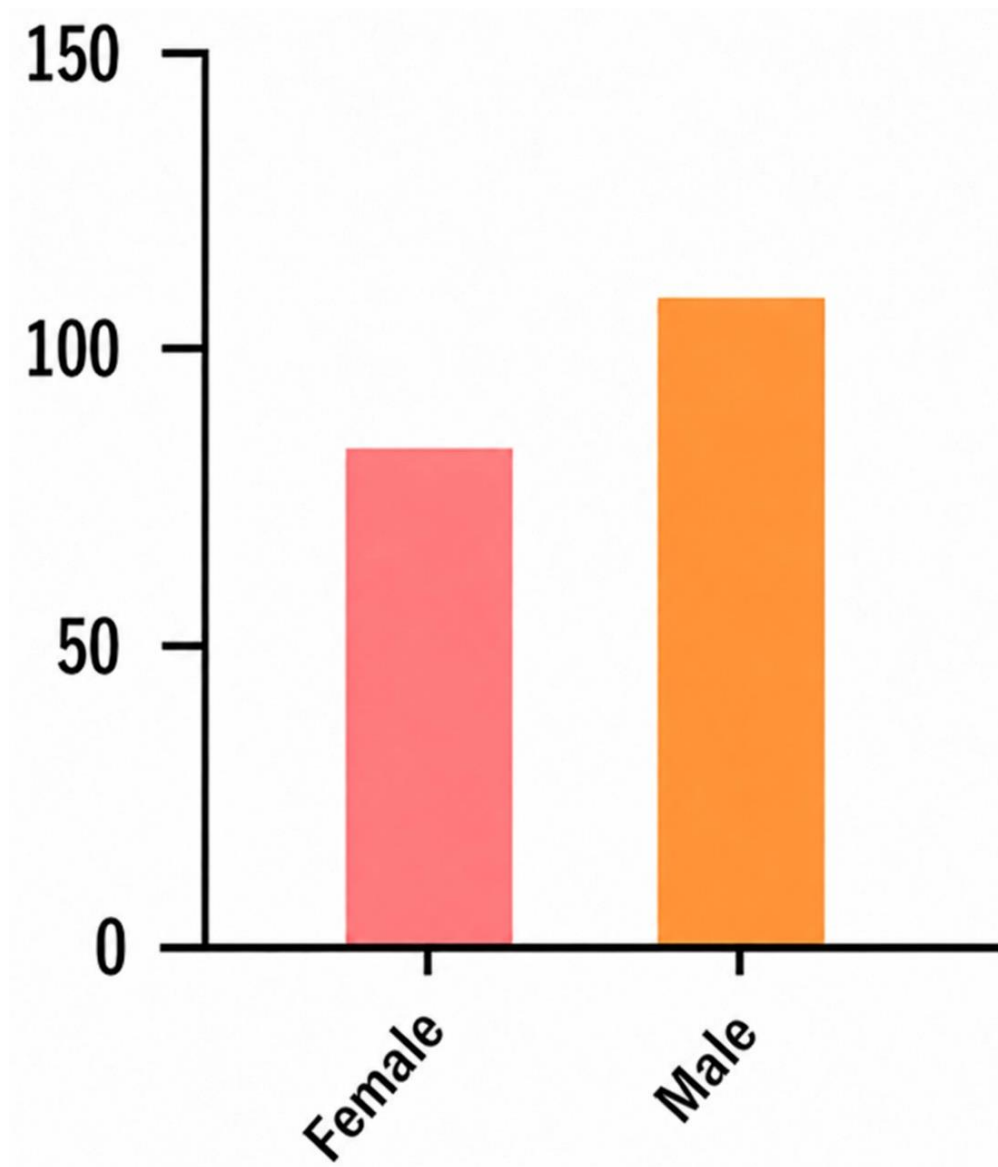


Figure 2. Sex distribution of patients undergoing GA (2014–2024).

The most prevalent clinical diagnosis was intellectual developmental disorders (IDD – ICD-11: 6A00), encompassing mild, moderate, severe, profound, and unspecified degrees, grouped together. Following this, notable cases included cerebral palsy (ICD-11: 8D2Z), autism spectrum disorder (ASD – ICD-11: 6A02), schizophrenia (ICD-11: 6A20), developmental anomalies (ICD-11: LD9Z), and other genetic or neurological syndromes (Table 1).

Table 1. Clinical diagnoses of CAOÉ patients treated under GA according to ICD-11

ICD - 11	Total number of patients	%
Intellectual developmental disorders	78	43%
Cerebral palsy	52	29%
ASD	17	9%
Schizophrenia	10	5%
Developmental anomalies	8	4%
Other syndromes	8	4%
Down syndrome	6	3%
Neurocognitive disorders	2	1%
Doença de Parkinson	1	1%
Neurological sequelae	1	1%

Abbreviations: ASD: autism spectrum disorder.

Within these main diagnoses, 163 patients (89%) presented only one diagnosis, 18 patients (10%) had two diagnoses, and only 1 patient (1%) had three associated diagnoses. Regarding the presence of systemic conditions associated with other diseases, most patients or their caregivers denied the existence of comorbidities beyond the primary diagnoses that justified the indication for GA. However, among those who reported concomitant systemic conditions, epilepsy (ICD-11: Disorders of brain activity and function) was the most prevalent, followed by endocrine diseases (diabetes mellitus and hypothyroidism) and cardiovascular conditions (heart disease, aortic alterations, hypertension), both with similar frequencies. Subsequently, sequelae of congenital infections (toxoplasmosis, rubella, and Zika virus) and gastrointestinal disorders were also reported. Epilepsy was classified separately from the other primary diagnoses, as its occurrence was concomitant with another mental condition in all patients, never as an exclusive diagnosis.

One of the main focuses of this study concerned the indications that justified the use of GA. The most frequent reason for this approach was unsatisfactory intravenous

pharmacological sedation, highlighting the limitations of conventional sedative methods in ensuring safety and effectiveness of dental procedures for CAOEs patients. The need for multiple procedures was the second most common reason, reinforcing the advantage of GA in optimizing dental treatment. Other recurrent indications included multiple extractions, persistent non-cooperative behavior under intravenous sedation (leading to its classification as unsatisfactory), respiratory problems causing significant oxygen desaturation, complexity of planned surgeries (impacted teeth and removal of large cysts), and restricted mouth opening.

Regarding procedures performed under GA, surgeries, particularly extractions, represented the most frequent dental intervention, followed by restorative procedures. Periodontal interventions, especially scaling for calculus removal, were the next most common. Finally, endodontic procedures accounted for the smallest proportion, which may be related to their technical complexity and the prolonged time required, often unfeasible even under GA, particularly when multiple sessions were necessary for adequate treatment (Table 2).

Table 2. Reasons for GA indication in CAOEs patients

Indication for general anesthesia	Patients	%	Dental specialties	Quantity of Patients	%
Sedation unsatisfactory	62	34%	Dentistry + Surgery	78	43%
Multiple procedures	40	22%	Surgery	73	41%
Multiples Exodonts	39	22%	Dentistry	19	10%
No Collaborator	26	14%	Dentistry + Periodontics + Endodontics	5	2%

Respiratory problems	10	5%	Dentistry + Periodontics	3	1%
Surgery complex	4	2%	Dentistry + Surgery + Periodontics	2	1%
No mouth opening	1	1%	Dentistry + Endodontics	1	1%

Finally, it was observed that most patients underwent GA only once during the analyzed period, corresponding to 150 patients (83%). In addition, 21 patients (11%) underwent the procedure twice, while 8 patients (4%) required three sessions. Only 3 patients (2%) needed four interventions under GA.

DISCUSSION

This study aims to evaluate and suggest alternatives for improving the oral health of patients with intellectual disabilities, based on a population that required GA to undergo dental treatment. Among the main limitations, the retrospective design based on medical records may present information bias and incomplete data. As a single-center, descriptive study, the results do not allow broad generalizations or definitive causal inferences.

The prevalence of patients aged 21 to 30 years undergoing GA at CAOÉ corroborates previous studies^{1,23} and reflects the accumulation of unmet dental needs during childhood and adolescence. While children and adolescents benefit more from preventive approaches²⁴, the transition to adulthood often requires more complex interventions due to failure of conventional management and increased physical strength, which hinders behavioral control and management of involuntary movements²⁵. These findings justify GA as an essential resource to ensure clinical safety in the presence of

comorbidities and lack of cooperation⁵, contrasting with studies reporting mean ages above 28 years^{13,26,27}.

In the present study, a predominance of male patients was observed, corroborating findings from other studies^{1,23,26,28}. Conversely, some reports indicated a higher prevalence among females^{5,13}. The predominance of males^{1,23,26,28} aligns with the higher incidence of intellectual developmental disorders (IDD) and cerebral palsy in this group²³. Factors such as greater physical robustness hinder outpatient stabilization, justifying hospital referral^{1,26}.

IDD represent the most prevalent diagnosis for GA^{1,26}. In these cases, airway management is critical due to the high risk of aspiration resulting from hypotonia, gastroesophageal reflux, and secretion accumulation^{6,17}. In patients with ASD, communication difficulties, hypersensitivity to routine changes, and repetitive behaviors make the outpatient environment hostile, leading to low adherence and care-seeking only in painful conditions²⁰. Flexibility in treatment planning and awareness of drug interactions are fundamental in such cases⁵.

Conditions such as schizophrenia, Down syndrome, and neurocognitive disorders require GA due to craniofacial deformities and the impact of polypharmacy (anticonvulsants, antipsychotics, and antidepressants). The use of these drugs reduces salivary flow and pH, increasing the risk of caries and gingival hyperplasia, thereby favoring periodontal disease²⁴. Moreover, GA mitigates metabolic stress in patients with heart disease and ensures systemic control in those with endocrine, renal, or hepatic dysfunctions, who present impaired healing and higher risk of infections^{4,5,8}.

At CAO, GA represents the final stage of a care pathway that prioritizes behavioral adaptation and sedation. Hospital-based procedures optimize quality of life by enabling multiple treatments in a single session^{17,19,24}. Although operational costs are

high¹¹, surgical indications—particularly multiple extractions—predominate due to the advanced stage of oral pathologies^{1,13,23,26}. Extractions are chosen to reduce the need for hospital reinterventions and minimize postoperative risks in patients with poor oral hygiene^{10,24}. Oral health status thus reflects the difficulties faced by families and/or caregivers in controlling biofilm to prevent diseases such as caries and periodontitis.

The need for reinterventions was limited to complex cases or failures in home care maintenance. These findings reinforce that disability is not an absolute indication for GA; prior adaptation and caregiver education regarding diet and hygiene habits are fundamental preventive strategies. Technologies such as suction toothbrushes may facilitate care and prevent accidents during brushing, encouraging more frequent daily oral hygiene. The epidemiological profile at CAOÉ guides planning that optimizes resources and ensures the effectiveness of procedures.

CONCLUSION

The epidemiological profile of patients with disabilities seeking care at CAOÉ has directed the flow of services and planning of new cases toward the indication of dental treatments under GA. The high frequency of single-session extractions highlights both the advanced stage of oral pathologies and the effectiveness of the hospital environment for this group. These findings emphasize the importance of understanding the profile of this population and the need for early preventive strategies capable of reducing disease progression and the demand for invasive procedures under GA. The relevance of these results lies in their contribution to the planning of public policies and care protocols aimed at promoting oral health in patients with intellectual vulnerabilities, thereby enhancing positive impacts on quality of life and the healthcare system.

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AUTHORS' CONTRIBUTIONS

Alessandra Marcondes Aranega, Ana Livia Assonuma, Isabele Rodrigues de Castilho, Caio Jesus de Souza and João Victor Soares Rodrigues: Conceptualization, Methodology, Validation, formal analysis, Investigation, Writing – original draft preparation, Writing – review and editing, Visualization, Supervision, Project administration, Resources, Funding acquisition. Daniela Atili Brandini and Letícia Helena Theodoro: Conceptualization, Methodology, Software, Validation, Investigation, Writing – review and editing, Visualization, Supervision.

REFERENCES

1. Lima CPOS, Couto GR, Barros ALO, Gutierrez GM, Santos MTBR. Epidemiological profile of patients with disabilities undergoing dental treatment under general anesthesia. *Rev Odontol UNESP*. 2021;50:e20210012. <http://dx.doi.org/10.1590/1807-2577.01221>.
2. Brasil. Lei nº 13.146, de 6 de julho de 2015. Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência (Estatuto da Pessoa com Deficiência). *Diário Oficial da União*. 2015 Jul 7.
3. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. A saúde bucal no Sistema Único de Saúde. Brasília: Ministério da Saúde; 2018.
4. Lim MAWT, Borromeo GL. The use of general anesthesia to facilitate dental treatment in adult patients with special needs. *J Dent Anesth Pain Med*. 2017

- Jun;17(2):91-103. <https://doi.org/10.17245/jdapm.2017.17.2.91>. Epub 2017 Jun 29. PMID: 28879336
5. Wang YC, Lin IH, Huang CH, Fan SZ. Dental anesthesia for patients with special needs. *Acta Anaesthesiol Taiwan*. 2012 Sep;50(3):122-125. <https://doi.org/10.1016/j.aat.2012.08.009>. Epub 2012 Sep 13. PMID: 23026171.
6. Yoshikawa F, Tamaki Y, Okumura H, Miwa Z, Ishikawa M, Shimoyama K, et al. Risk factors with intravenous sedation for patients with disabilities. *Anesth Prog*. 2013 Winter;60(4):153-161. <https://doi.org/10.2344/0003-3006-60.4.153>. PMID: 24423418.
7. Ciccozzi A, Lupi E, Necozone S, Giovannetti F, Oliva A, Ciuffini R, et al. Airway management and general anesthesia in pediatric patients with special needs undergoing dental surgery: a retrospective study. *Reports (MDPI)*. 2024 Sep 17;7(3):79. <https://doi.org/10.3390/reports7030079>. PMID: 40729302.
8. Maeda S, Tomayasu Y, Higuchi H, Ishii-Maruhama M, Yamane A, Yabuki A, et al. Independent factors affecting recovery time after sedation in patients with intellectual disabilities. *Open Dent J*. 2015 Mar 31;9:146-9. <https://doi.org/10.2174/1874210601509010146>. PMID: 25926898
9. Choi J, Doh RM. Dental treatment under general anesthesia for patients with severe disabilities. *J Dent Anesth Pain Med*. 2021 Apr;21(2):87-98. <https://doi.org/10.17245/jdapm.2021.21.2.87>. Epub 2021 Mar 31. PMID: 33880402.
10. Shenoy R, Hegde V, Shenai PK. Dentition status, treatment needs and dental aesthetic index scores of individuals attending special schools. *Indian J Community Med*. 2011 Oct;36(4):301-3. <https://doi.org/10.4103/0970-0218.91419>. PMID: 22279262.
11. Yazdanbakhsh E, Bohlouli B, Patterson S, Amin M. The use of general anesthesia for dental treatment of children with special healthcare needs in Alberta, Canada. *Int J Paediatr Dent*. 2025 Mar;35(2):347-358. <https://doi.org/10.1111/ipd.13237>. Epub 2024 Jul 10. PMID: 38988130.
12. Vacharaksa K, Thongrakard T, Vacharaksa A. Needs of non-pharmacological management versus sedation or general anesthesia for dental treatment in older adults with special needs: a systematic review. *Health Policy*. 2025 Apr;154:105262. <https://doi.org/10.1016/j.healthpol.2025.105262>. Epub 2025 Feb 12. PMID: 39954585.

13. Aloufi A, Alatawi F, Hakeem FF, Abed H. Factors determining the need for general anesthesia to deliver dental treatment for adults with intellectual and developmental disabilities. *Saudi J Anaesth*. 2022 Jan-Mar;16(1):24-28. https://doi.org/10.4103/sja.sja_296_21. Epub 2022 Jan 4. PMID: 35261584.
14. Glassman P, Caputo A, Dougherty N, Lyons R, Messieha Z, Miller C, et al. Special Care Dentistry Association consensus statement on sedation, anesthesia, and alternative techniques for people with special needs. *Spec Care Dentist*. 2009 Jan-Feb;29(1):2-8; quiz 67-8. <https://doi.org/10.1111/j.1754-4505.2008.00055.x>. PMID: 19152561.
15. Andrade APP, Eleutério ASL. Pacientes portadores de necessidades especiais: abordagem odontológica e anestesia geral. *Rev Bras Odontol*. 2015 Jan-Jun;72(1/2):66-69. <https://doi.org/10.18363/rbo.v72.2015.e616>.
16. Dias MC, Picciani BLS. Tratamento odontológico sob anestesia geral em pessoas com deficiência: revisão de literatura. *Cad Odontol UNIFESO*. 2024;6(2):123-132.
17. Chaudhary K, Bagharwal P, Wadhawan S. Anesthesia for intellectually disabled. *J Anaesthesiol Clin Pharmacol*. 2017 Oct-Dec;33(4):432-440. https://doi.org/10.4103/joacp.JOACP_357_15. PMID: 29416231.
18. Hillebrecht AL, Hrasky V, Anten C, Wiegand A. Changes in the oral health-related quality of life in adult patients with intellectual disabilities after dental treatment under general anesthesia. *Clin Oral Investig*. 2019 Oct;23(10):3895-3903. <https://doi.org/10.1007/s00784-019-02820-4>. Epub 2019 Feb 1. PMID: 30707300.
19. Al-Khotani A, Ajabnoor H, Koshak R, Alshehri SA, Meisha DE. Clinical profiles and treatment outcomes of dental rehabilitation in patients treated under general anesthesia: a comparison between healthy and special healthcare needs children. *Front Pediatr*. 2025 Apr 17;13:1550317. <https://doi.org/10.3389/fped.2025.1550317>. PMID: 40313671.
20. Alghafis B, Alharbi A, Al-Haj Ali S, Alsineedi F, Alsudairi O. Dental treatment characteristics of autistic children and differences in dental procedures under general anesthesia relative to healthy counterparts. *Children (Basel)*. 2023 Feb 26;10(3):466. <https://doi.org/10.3390/children10030466>. PMID: 36980024.
21. Araújo ECF, Silva RO, Oliveira IT, Freire AR, Lucena EHG, Cavalcanti YW. Procedimentos odontológicos e custos hospitalares para pacientes com necessidades especiais no Brasil. *Ciênc Saúde Colet*. 2025 Abr;30(4):e02902023.

<https://doi.org/10.1590/1413-81232025304.02902023>.

22. Condessa AM, Lucena EHG, Figueiredo N, Goes PSA, Hilgert JB. Atenção odontológica especializada para pessoas com deficiência no Brasil: perfil dos centros de especialidades odontológicas, 2014. *Epidemiol Serv Saúde*. 2020;29(5):e2018154. <https://doi.org/10.1590/S1679-49742020000500001>.
23. De Souza LAC, Santana JN, Cardoso AB, de Oliveira RLB. Tratamento odontológico sob anestesia geral em pacientes com deficiência: estudo epidemiológico em um hospital de referência. *J Arch Health*. 2024;5(1):310-322. <https://doi.org/10.46919/archv5n1-030>.
24. Domingues NB, Ayres KCM, Mariusso MR, Zuanon ACC, Giro EMA. Caracterização dos pacientes e procedimentos executados no serviço de atendimento a pacientes com necessidades especiais da Faculdade de Odontologia de Araraquara – UNESP. *Rev Odontol UNESP*. 2015 Nov-Dez;44(6):345-350. <https://doi.org/10.1590/1807-2577.0015>.
25. Castro AM, Marchesoti MGN, Oliveira FS, Novaes MSDP. Analysis of dental treatment provided under general anesthesia in patients with special needs. *Rev Odontol UNESP*. 2010 Maio-Jun;39(3):137-142.
26. Santos JS, Valle DA, Palmier AC, Amaral JHL, Abreu MHNG. Utilização dos serviços de atendimento odontológico hospitalar sob sedação e/ou anestesia geral por pessoas com necessidades especiais no SUS-MG, Brasil. *Ciênc Saúde Colet*. 2015 Fev;20(2):515-524. <https://doi.org/10.1590/1413-81232015202.06732014>.
27. Silveira ER, Cademartori MG, Schuch HS, Armfield JA, Demarco FF. Estimated prevalence of dental fear in adults: a systematic review and meta-analysis. *J Dent*. 2021 May;108:103632. <https://doi.org/10.1016/j.jdent.2021.103632>. Epub 2021 Mar 9. PMID: 33711405.
28. Dall'Magro AK, Dall'Magro E, Kuhn GF. Perfil clínico dos pacientes especiais tratados sob anestesia geral no Hospital São Vicente de Paulo de Passo Fundo entre os anos de 2005 e 2010. *RFO UPF*. 2010;15(3):251-254.

CONFLICTS OF INTERESTS

The authors declare no conflict of interest.

DATA AVAILABILITY

Data is available on demand from referees.

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