

ANALYSIS OF THE FEASIBILITY OF A MULTIDISCIPLINARY HOSPITAL DENTAL SERVICE FOR PEOPLE WITH SPECIFIC NEEDS AT A UNIVERSITY HOSPITAL IN TOCANTINS

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Abstract: Data from the Ministry of Health in Brazil inform that a large part of the Brazilian population suffers from the presence of diseases in the oral cavity. However, when the topic of people with disabilities or special needs is addressed, we are faced with a lack of data, although it is known that this group requires special attention to oral health. These individuals face challenges in hygiene and chewing, in addition to facing significant restrictions in access to health services, which results in dental needs that can trigger complications and systemic disorders, often requiring highly complex hospital interventions. This work aims to carry out a physical-financial feasibility study to create a multidisciplinary hospital dental service for patients with disabilities or special needs and propose the flow and service protocol for the new service. A study of the physical structure was carried out in the years 2021 and 2022 in order to know the location of the possible implementation of the dental service in the university hospital (HU), as well as financial research through public domain websites in order to verify the costs for implementation and the possible monetary return on the service. A protocol was created containing the criteria for caring for these patients and using the Bizagi Modeler® program it was possible to map the process and develop the care flow. The results demonstrate the possibility of increasing the number of patients served, the economic viability and financial return of the service. It was verified that there is feasibility in creating a dental service in the university hospital studied as a potential resource to improve the use of personnel, time and physical space and that a future implementation of the service will imply an increase in the number of patients with better care at the population in need, as well as the increase in fundraising for the hospital.

Keywords: Dentistry; Disabled people; Multidisciplinary Assistance Team.

INTRODUCTION

People with Disabilities (PwD) or people with Special Needs (PNE) are defined as those who have any physical, developmental, mental, sensory, behavioral, cognitive or emotional restriction that requires pharmacological control, specialized programs and services. This condition, which causes physical impairment or restriction, can be acquired or developed, and may cause limitations in the performance of daily activities or even compromise the individual's quality of life. In Dentistry, the term "patient with special needs" is used to define not only a person with a disability, but other individuals who need individualized dental treatment, due to some underlying disease (BRAZIL, 2009; CALDAS JR. and MACHIAVELLI, 2013).

According to the 2010 survey by SB Brazil, an epidemiological survey that characterizes the dental conditions of the Brazilian population, the majority of individuals in the country suffer from the presence of oral diseases, mainly cavities and periodontal disease, even though there is no statistics that demonstrate such data for the PwD or PNE public (BRAZIL, 2012a). In this context, it is necessary to highlight that people with disabilities may present high risks for oral problems, due to difficulties in local hygiene, chewing, the use of a soft or carbohydrate-rich diet or due to the use of sweet medications that promote the reduction of salivary flow, in addition to there being limitations on access to health services (ANDRADE and ELEUTÉIO, 2015; MATA et al., 2021).

It is worth noting that for people who have neurological diseases or physical disabilities, there are factors that increase the impairment of quality of life and autonomy (MELO et al., 2020). Furthermore, dental care for this population group may involve difficulties, considering the limitations presented by patients, such as impediments or limitations

in mouth opening, difficulty in locomotion or transportation and the socioeconomic condition of the family, as well as obstacles in communication and understanding. of commands. Other factors that hinder the comprehensive treatment of this population are related to professionals or oral health services, such as the difficulty of providing care in an outpatient setting, case management or insufficient training (NUNES et al, 2017; MACEDO PEREIRA et al, 2010). The consequence of this sum of factors leads to the accumulation and worsening of treatment needs, in addition to the emotional and physical exhaustion of patients and guardians (LARA et al., 2019).

The early and correct identification of these cases that require specialized care, in addition to minimizing unnecessary costs to the system, facilitates the patient's therapeutic journey through the health network with a reduction in waiting time for dental appointments, thus providing adequate planning of demands of reference services (BASTOS, 2015).

In the Oral Health Care Network, Primary Health Care is responsible for organizing access for people with disabilities to the SUS (Unified Health System), defining actions that guarantee care for these users and eventual referral of more complex cases to Specialized Care and/or Hospital. Respecting the possibilities of systemic and/or behavioral management, patients considered special must be referred to the Dental Specialties Center (CEO) in cases where the procedure requires greater complexity or in situations in which treatment cannot be carried out. in the basic health unit, as intervention possibilities are exhausted (BRAZIL, 2018). Tertiary Care is responsible for carrying out dental treatments under general anesthesia/sedation and/or clinical conditions that require technological or medicinal measures, which are not available at CEOs.

This type of care is indicated when it is impossible to carry out treatment in a conventional way, either due to difficulty in managing the patient or due to a clinical condition that contraindicates it (BASTOS, 2015).

Ordinance GM/MS nº 793, of 04/24/2012, established the Care Network for People with Disabilities (RCPD) within the scope of the SUS, covering oral health actions in states and municipalities. With the aim of guaranteeing unrestricted access and dental care to People with Disabilities, article 22, section III, states: "expanding access to dental urgencies and emergencies, as well as care under sedation or general anesthesia, adapting surgical centers and teams to this end" (BRAZIL, 2012).

Among the existing challenges for providing services to the public in question, it is necessary to carry out more targeted planning, as there is the possibility of indications for dental treatment under the use of sedation or general anesthesia, whether for reasons of a physical or psychological nature. patient. In these cases, the majority of people who require dental care in a hospital environment are subjected to invasive procedures, however, the possibility of dental care under the use of general anesthesia or sedation in a hospital environment results in comprehensive care for this population segment (MATA et al., 2021).

The indications for dental treatment under sedation and/or general anesthesia are of a medical, mental or psychological nature, including intellectual disability, physical limitations, movement disorders, behavioral disorders and chronic diseases. In recent decades, there has been an effort in Brazil to organize oral health care for PwD/PNE, considering everything from primary care to care under sedation and/or general anesthesia at hospital level, thus strengthening the National Health Policy for People with

Disability (SANTOS et al., 2015; ANDRADE and ELEUTÉIO, 2015).

To promote comprehensive and resolute care for people with disabilities who require guidance, prevention, care or oral health assistance from the SUS, the Oral Health team must be adequately trained to welcome, help complaints, provide guidance for complementary exams, monitor evolution of each case and carry out referral and counter-referral of patients in the healthcare network when necessary (THEISS et al., 2022).

The objective of this work was to carry out a physical-financial feasibility study to create a multidisciplinary hospital dental service for patients with disabilities or special needs and to propose the flow and care protocol of the new service to be implemented at the hospital in Tocantins.

This study offers a new perspective for solving a specific problem. The chosen theme arose from the need experienced in daily practice by the Dentistry service of the Tropical Diseases Hospital of ``*Universidade Federal do Tocantins*`` (HDT-UFT), considering that several patients served, especially those with disabilities or special needs, who require dental care more complex cases are unable to complete their treatment in the health care network in Araguaína-TO, which causes physical damage, both oral and systemic, in addition to emotional damage.

In this context, seeking to fill a gap that also has practical implications, the provision of a multidisciplinary hospital dental service at the Tropical Diseases Hospital of Tocantins that meets the needs of users is important in addition to the care aspect, but also in the educational aspect, as it is The fundamental role of a University Hospital is to carry out integrated multidisciplinary work based on the resolution of cases and efficient treatments for the population served.

METHODOLOGY

ANALYSIS OF PHYSICAL STRUCTURE AND HUMAN RESOURCES

In order to study the proposal to create the service, a survey was carried out in 2021 and 2022 to understand the local reality regarding the existing physical structure, equipment and personnel, as well as the necessary investments and financial return for the institution. The research into the physical and personnel structure was carried out through the hospital's information website, which contains service rosters, staff capacity, protocols, manuals and standard operating procedures for services and news. Through this research it was possible to obtain the necessary data about the facilities and professionals available, as well as the equipment available.

To research the values to be invested, a search was carried out on the internet through the Federal Government Purchasing Portal for the values of equipment, materials and instruments necessary to provide multidisciplinary dental care for patients with disabilities or special needs at the University Hospital (HU).

To estimate the financial return on services, a search was carried out using the SIGTAP value table (SUS OPM Procedures and Medication Table Management System) in order to identify the values to be paid and the estimated fundraising in accordance with technical service capacity (available structure and team).

SIGTAP is a tool developed by the Brazilian Ministry of Health to manage and update the table of procedures, medications and orthoses, prostheses and special materials (OPM) used in the Unified Health System (SUS).

The SIGTAP table contains codes, descriptions, values and other information related to procedures, medicines and materials

used within the scope of the SUS. These codes are used to identify and record the actions carried out by health professionals, facilitating the management, control and evaluation of health services provided to the population.

SIGTAP is a fundamental tool for various processes within the SUS, such as:

- Service billing: Codes are used to record the procedures performed, allowing the services provided to be billed to the health system.
- Planning and management: The information contained in the SIGTAP table is used for planning, monitoring and evaluating health services, helping to manage resources and define public policies.
- Standardization: SIGTAP contributes to the standardization of health procedures and services across the country, facilitating communication and exchange of information between different federative entities and health units.

The Surgical Center, a reference location for complex dental care, can be defined as a set of areas and facilities intended for carrying out anesthetic-surgical procedures and anesthetic recovery, in order to provide safety and comfort for the patient and team. The purpose of the site is:

- I) Provide comprehensive assistance to patients during the perioperative period, providing the minimum essential conditions for carrying out anesthetic and surgical procedures;
- II) Provide adequate physical environment, materials and human resources in technical, aseptic and safe conditions for the patient and the surgical team;
- III) Manage materials and equipment necessary to care for patients undergoing surgical and/or diagnostic procedures;

IV) Ensure safe and quality care for all patients undergoing anesthetic-surgical procedures.

The Surgical Center of the Hospital for Tropical Diseases of ``*Universidade Federal do Tocantins*`` (HDT-UFT), an institution affiliated with the Brazilian Hospital Services Company Network (EBSERH) has two operating rooms, a post-anesthesia recovery room with three beds, a room for outpatient preparation, equipment and pharmacy room, distributed over more than 270 m², recently renovated and reopened in 2021.

Occupation area	Quantity	Beds
Surgery room	2	2
Recovery Room	1	3
Preparation Room	1	1

Table 1: Physical Structure of the HDT-UFT Surgical Center

Source: Own elaboration (2022)

Professional	Quantitative
Anesthesiologist	2
Dental surgeon	3
Nurse	6
Oral Health Technician	1
Nursing technician	13

Table 2: Human Resources available to work in the Hospital's Surgical Center

Source: Own elaboration (2022)

PREPARATION OF PROTOCOL AND SERVICE FLOW

To propose the service, a protocol was drawn up containing the criteria for caring for these patients in the multidisciplinary dental service for patients with disabilities or special needs at the University Hospital. Additionally, using the Bizagi Modeler® program, it was possible to map the process and develop the service flow, with the aim of reducing costs and accelerating service. Bizagi Modeler® is a process modeling tool that allows users to create, visualize and document workflows in

an intuitive and collaborative way. It offers capabilities to draw process diagrams using standard notations such as BPMN (Business Process Model and Notation) and facilitates the analysis, optimization and communication of business processes.

In the context of the study, Bizagi Modeler® was used for the following purposes:

- **Process Modeling:** we use it to map the process of dental care in a surgical center for people with disabilities. This included identifying every step of the process, from scheduling an appointment to completing treatment, and documenting interactions between healthcare professionals and patients.
- **Identification of Points for Improvement:** With the process mapped, we were able to analyze the workflow and identify opportunities for improvement. This included eliminating redundant steps, optimizing patient waiting times, and introducing practices that improve accessibility and quality of care for people with disabilities.
- **Visualization and Communication:** Bizagi Modeler® allowed the proposed service process to be visualized in a clear and understandable way. This can facilitate the presentation of the proposal to HU managers and communication with other interested parties, such as healthcare professionals, healthcare managers and patients, and helps to obtain feedback and support for implementing the changes.

The preparation of the protocol was carried out based on the basic protocol for care in a surgical center prepared in the forum for dental care for patients with special needs (Theiss et al., 2022). According to the authors, among the indications for hospital dental care are:

- Patients with special needs who, after some attempts at primary or secondary care, did not allow procedures;
- Patients who have severe systemic impairment who require resources unavailable in the previous service;
- Unfeasibility of carrying out dental procedures due to difficult behavior management and many accumulated treatment needs, which make traveling to treatment very difficult and expensive;
- Patients with involuntary movements that put their physical integrity and that of the dental team at risk;
- People with neurological injuries, syndromes and behavioral disorders, whose behavior management was unsuccessful for outpatient care;
- Patient with mental disabilities or other impairments who do not respond to commands;
- People with systemic changes who present a high risk of dental care in an outpatient setting;
- People with sensory and physical disabilities when associated with behavioral disorders;
- Person with severe neurological disability;
- Degenerative diseases of the central nervous system;
- Autistic patient with a level of severity that makes outpatient care impossible;
- Psychiatric disorders: panic syndrome, anxiety disorders;
- Chronic systemic and endocrine-metabolic pathologies (e.g. immunosuppressed / immunosuppressed, high-risk pregnancy, blood dyscrasias, liver disease undergoing drug treatment, obese and patients undergoing bariatric surgery, among others);
- Genetic changes;
- Urgent surgical care (abscess drainage, trauma).

RESULTS

PHYSICAL-FINANCIAL VIABILITY

Analyzing the possibility of implementing the new service for complex dental care for people with disabilities, based on the methodology for investigating economic viability and financial return that was carried out through a survey of the amounts paid, through consultation of the SIGTAP table, it was then prepared a prospection of possible services, according to the current workload of HDT-UFT dentistry professionals and room availability in the surgical center.

PROCEDURES AND VALUES

Regarding procedures that are not yet performed at the HU and could be performed through the implementation of this service, the main dental procedure for billing must be launched. The main dental procedure for PNE/PwD is described in the unified table of the SUS Procedures, Medications and Orthosis, Prosthesis and Materials Table Management System (SIGTAP) as one that consists of dental procedures performed in a hospital environment, under sedation and/ or general anesthesia, in users who have one or more temporary or permanent intellectual, physical, sensory and/or emotional limitations that prevent them from undergoing conventional dental care. This procedure is characterized as the main procedure that generates the issuance of a Hospital Admission Authorization (AIH) with the Brazilian Occupation Code (CBO) of the dental surgeon.

The SIGTAP table has only 01 main dental procedure for PNE/PwD that can authorize the completion and launch of an AIH (Ordinance n° 1,032 of 05/05/2010). The ICD (International Disease Code) to be filled in at AIH must be Z 741 - Need for assistance with personal care. When reporting procedure 04.14.02.041-3 regarding Dental

Treatment for Persons with Special Needs, it will be mandatory to record the secondary procedures carried out compatible with the main procedure.

The values include \$22.66 for the Hospital Service and \$39.39 for the Professional Service, totaling \$62.06, including the cost of anesthesia. Furthermore, it is compatible with secondary dental procedures (from the primary care services portfolio) and special procedures (from the medium complexity/specialized care services portfolio), and the performance of the latter also generates payment. This way, the performance of the dental procedures themselves (prophylaxis, scaling, restorations, extractions, x-rays, etc.) may be launched as secondary procedures, and may also be a source of revenue, when the transfer of values through the SUS table is foreseen.

For the launch of secondary procedures carried out in a hospital environment, they must be registered and reported in the Hospital Information System (SIH), regardless of the reason that generated the hospitalization, and no longer just those carried out on Patients with Special Needs (main code 04.14.02.041-3) it can be launched even if the AIH has been completed by a doctor.

In addition to these procedures, the following code may be used in consultations and evaluations: 03.01.01.017-0 - Inpatient Consultation/Evaluation. This procedure consists of a daily visit by the assistant dentist or specialist to issue an opinion (inter-consultation) and is carried out at the bedside. In cases of issuing an opinion, a consultation must be registered for each opinion, according to the CBO of the CD that provided the service. If the patient is hospitalized for a period that covers more than one skill, the special and secondary procedures must be repeated as many times as the skills in which the consultations/procedures were carried

out. Ordinance No. 526, of June 24, 2020, published on 07/02/2020 in the Official Gazette of the Union by the Ministry of Health, included some procedures that can use the AIH as a registration instrument and can be completed by the CD.

TEAM AND INPUTS

The minimum constitution of a reference dentistry team must be 01 dental surgeon (CD), 01 oral health technician (TSB) and/or oral health assistant (ASB). Currently, the HDT-UFT Dentistry team has three Dental Surgeons and an Oral Health Technician.

The DC's work on a 12x36 hour shift basis and during shifts an average of 4 hours is spent caring for inpatients, 4 hours for outpatient care (on working days), 1 hour of rest and 3 hours for administrative activities (developments, preparation of documents relating to hiring processes and purchase of materials, standardization of health products, review and preparation of Standard Operating Procedures and protocols, as well as participation in meetings). Therefore, with the implementation of patient care in the surgical center, dental shifts can be better utilized, as there is no outpatient demand during the weekends. This way, at least two weekly dental appointments could be added in a surgical center, bringing, in addition to the immense benefit for the user served, a financial return of \$6,455.07 annually.

The hospital already has a dental team on its clinical staff and has a specific infrastructure set up to provide care and perform dental procedures.

In addition, manual and rotary instruments, a photopolymerizer, amalgamator, secretion aspirator, ultrasound scraping equipment, mouth openers and all consumables and instruments used in carrying out dental procedures already purchased for use in an outpatient clinic will be used. In table 3 it is

possible to observe the list of equipment, instruments and supplies necessary to provide dental care for people with disabilities or special needs in a surgical center. To expand the service and installation of the service, in addition to the existing structure, supplies and team, only the acquisition of a portable dental office, with an average cost of \$2,266.54, will be necessary, since the other equipment is already part of the hospital's technological and instrumental park.

Equipments	Instruments and Permanent Materials	Inputs
Amalgamator	Endodontic instruments	Calcium hydroxide
Photopolymerizer	Periodontal instruments	Glass ionomer
Laser device	Surgical instruments	Carbon paper
High rotation pen	Dentistry instruments	Temporary filling cement
Straight tip	Spatulas	Phosphoric acid 37%
Contra angle	Clinical game	Absorbable hemostatic sponge
Benchtop micromotor	Mouth openers	Head flashlight
Portable dental equipment	Surgical drills	Sodium hypochlorite
Electric scalpel	Cavity removal drills	Light-curing composite resin
	Glass plate	Light-curing sealant
	Straight and circular scalpel	Sodium Fluoride
	Metal tray	Hemostatic solution
		Polyester strip
		Topical anesthetic
		Injectable anesthetic with vasoconstrictor
		Disposable surgical suction cup
		Tongue scraper
		Dental gingival needle
		Scalpel blades

Table 3: Required Dental Materials

Source: Own elaboration (2022)

DENTAL CARE PROTOCOL FOR PERSONS WITH DISABILITIES AT HDT-UFT

The protocol developed is characterized by being a working tool that includes a set of parameters and was created with the objective of standardizing, building, adapting and improving the instruments necessary for the dentist and team to perform dental care in a surgical center. It also presents a set of principles and recommendations designed to facilitate appropriate decision-making in patient care in specific situations. It is noteworthy that the technical-scientific decision must always be combined with the potential to be executed, especially when referring to patients with disabilities or special needs, as the difficulty of serving these users is accentuated, in most cases, by the presence of extreme behavioral limitations (CALDAS JR. and MACHIAVELLI, 2013).

To be treated at the Hospital for Tropical Diseases of ``*Universidade Federal do Tocantins*`` , patients must preferably be part of the list of patients with a service profile for the hospital and/or be regulated through the state or municipal manager, as per the contract.

PROTOCOL FOR CARRYING OUT DENTAL CARE UNDER GENERAL ANESTHESIA

General anesthesia is an additional resource, and in some situations, it can or must be instituted for the dental treatment of patients with special needs. Dental treatment, when possible, must be carried out on an outpatient basis with the participation of a multidisciplinary and interdisciplinary team, considerably reducing the risks inherent to hospitalization itself, administration of general anesthetic agents, as well as the total costs of this procedure. The indication of general anesthesia for dental treatment must follow the planning.

The Federal Council of Medicine determined through ordinance no. 852, dated 10/04/1978, on patients undergoing general anesthesia for dental treatment by dental surgeons: general anesthesia can only be performed by an anesthetist, in a hospital environment, and the hospital must have essential conditions for safety, common to surgical environments.

The ordinance also determines that the request and/or performance of general anesthesia in a doctor's office or outpatient clinic is unethical and must, therefore, be administered by an anesthetist in a hospital environment, as he or she has resources in the event of any eventuality. The anesthetist is responsible for the patient, under any circumstances, including before the Legal Medical Institute.

According to resolution 172/91 of the Federal Council of Dentistry, the dental surgeon can operate on patients undergoing any of the means of general anesthesia, as long as the precautionary requirements recommended for their use are met, that is, general anesthesia is performed by the doctor anesthetist in a hospital environment. It also states that the dental surgeon can perform professional work on patients under general anesthesia when this is performed by a specialist doctor in a hospital environment, who has the indispensable conditions common to the surgical environment.

Indications for General Anesthesia for Dental Treatment

The indications for general anesthesia in patients with special needs are based on three fundamental factors:

- Clinical conditions: patient with severe physical impairment, neuromotor, neuropsychomotor disorder or severe or profound mental disability.
- Oral conditions: very extensive dental

treatment, extraction of unerupted teeth, biopsies, multiple extractions, hyperplasias, cysts, tumors and major surgeries.

- Behavioral conditions: extremely anxious, uncooperative patients due to cognitive problems, behavioral or psychiatric disorders, dementia and surgical procedures in children.
- Other conditions: dental treatment needs accumulated in patients living in remote areas, which do not have this type of care.

Preparation of the treatment plan

The objective of preparing the treatment plan is to organize and rationalize procedures, reducing the possibility of unforeseen events and delays, as well as necessary changes during treatment execution.

1- Anamnesis: patient information, past and current dental medical history, complementary exams and necessary medical opinions. 2- Diagnostic oral examination: clinical and radiographic examination when possible. 3- Dental team and anesthetist interaction: discussion of the duration of anesthesia according to the nature and volume of the work to be performed. When it is not possible to perform an oral examination and detailed treatment plan, they will be carried out with the patient already under general anesthesia.

The treatment plan is based on care planning and consists of pre-operative, intra-operative and post-operative phases that also include maintenance or continuity of treatment.

Team

The multidisciplinary team must be composed of: Anesthetist; Dental team: The dental team must preferably consist of two dental surgeons (CDs) and one to two oral health assistants (ASB) or oral health technicians (TSB) and a nursing team.

Preoperative procedures

Pre-operative management is characterized as assessment, detection of the need for care in a surgical center and planning of care, thus constituting the first and second dental consultation, as well as the pre-operative consultation with the anesthetist.

First Dental Consultation

A prior history must always be taken. Radiographs (panoramic and periapical) will be requested whenever possible. At this time, any necessary tests must be requested, such as: Complete blood count, Complete coagulogram, Fasting blood glucose, Blood typing (in case of blood dyscrasias or hematological diseases), Sodium, Potassium, Urea, Creatinine, Chest X-ray (indicated for patients over 40 years of age, or with a history of chronic lung disease, pneumonia, smoking, among others), Electrocardiogram, Cardiologist opinion (when necessary), Other tests or opinions (when necessary). For dental care in a surgical center for patients under general anesthesia, it is necessary that all requested exams present values within the normal range to enable the procedures to be carried out safely.

Second Dental Consultation

It is the consultation to evaluate exams, plan treatment and schedule the surgical center. Informed consent must be completed and signed by the patient's legal guardian.

Filling out the hospitalization request and scheduling surgery must also be carried out at

this stage. It is desirable to refer the patient to the pre-anesthetic clinic with the test results. The anesthesiologist's clinical support is important in the preoperative, transsurgical and postoperative phases.

Pre-Operative Consultation with Anesthetist

The objectives of the preoperative visit, carried out by the anesthetist, must be: Identify clinical conditions that can be improved before surgery; Identify clinical conditions that can guide the choice of anesthesia; Verify the need for special monitoring during or after surgery; Assess the need for preoperative medication; Establish a relationship of trust; Reduce fear and anxiety; Educate and instruct the patient or guardian.

Trans-Operative Procedures

The patient must be completely fasting for the twelve hours preceding general anesthesia. The morning period is recommended the ideal.

- 1- Patient and guardian present themselves in the admission room.
- 2- The patient is taken to the surgical center.
- 3- If necessary, pre-anesthetic medication will be administered by the anesthetist in order to reduce anxiety.
- 4- If the patient does not arrive at the surgical center sedated, help will be requested from the person who has the greatest degree of affection in accompanying him to the operating room. After anesthetic induction, the companion leaves the room.
- 5- Team attire.
- 6- Preparation of the table and dental equipment: The assembly of the table and checking of the dental equipment must be carried out by the Dental Surgeon and/or his assistant.
- 7- Preparation of the operating field, intra and extra-oral antiseptics.
- 8- Placement of sterile operating fields.
- 9- Aspiration and

placement of the oropharyngeal packing.

- 10- Use of mouth openers to maintain and facilitate preventive/rehabilitative/surgical treatment.

Dental treatment

It is important to consider the patient's condition to plan restorative and surgical treatment in the best possible way. Less conservative interventions (partial or total extractions) may be necessary, to the detriment of rehabilitative interventions (endodontics, restorative dentistry and prosthetics).

- 1- Infiltrative anesthesia with vasoconstrictor to reduce the amount of anesthetic applied, facilitating post-surgical recovery and, in cases of surgery, reducing bleeding. (inform the anesthetist about the administration of local anesthetic).
- 2- Periodontics.
- 3- Restorations and applications of sealants and fluoride.
- 4- Extractions and other surgical procedures.
- 5- Suture with resorbable thread, when possible and necessary.
- 6- Cleaning the operating field with saline solution.
- 7- Notifying the anesthetist of the end of dental procedures.
- 8- Vacuuming and final inspection.
- 9- Removal of the oropharyngeal plug.
- 10- Monitoring the patient's awakening and removal to the recovery room.

Post-operative care

- 1- Patient is taken to the recovery room or bed.
- 2- Completing the medical records: surgery report and post-operative prescriptions.
- 3- Guidance to the person responsible about post-operative care, medications and scheduling a return to the outpatient clinic.
- 4- Discharge from hospital, with the patient fully recovered, after discharge from the anesthetist. Generally granted on the same day as the procedure, as long as the patient is in perfect oral and systemic health.

Maintenance of Dental Treatment

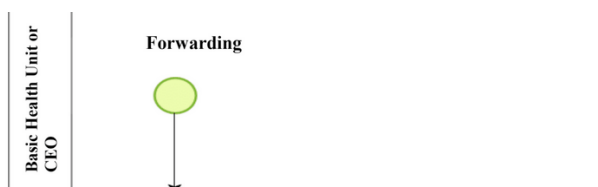
The patient's return to the office must be planned according to their individual needs.

Periodic follow-ups are important to desensitize the patient to future preventive and curative treatments. In these returns, a greater bond is established between patient/family/professional.

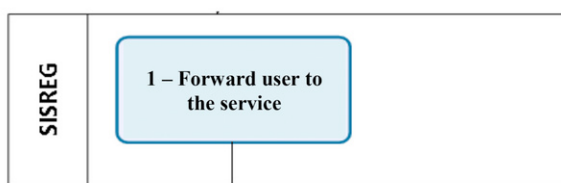
FLOW OF DENTAL CARE FOR PERSONS WITH DISABILITIES AT HDT-UFT

The flow prepared for the implementation of the new service was prepared in accordance with the current functioning of the sector where the services will be provided and the professionals who will be involved in the process. It is illustrated in Figure 1. Next, there is an exhibition of sections of the flow containing explanations of the steps.

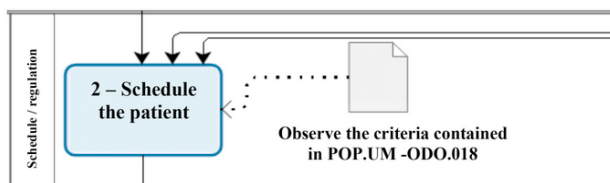
The start event, characterized as the element used to represent the occurrence of the initial fact of the process, marking the point where the process originates, will occur through the referral of the user by the health network to the HDT-UFT dentistry service.



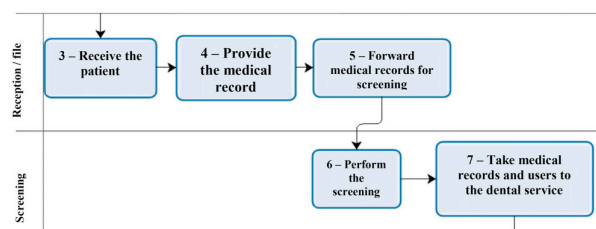
Soon after, through the contracted manager, the user will be sent to the hospital to make the appointment.



From step number 2 onwards, activities take place internally in HDT-UFT, starting with user scheduling. To make the appointment, the service will check whether the case meets the criteria for scheduling the dentistry service in accordance with the regulatory document in force.



On the day of the service, the user will arrive at the hospital and must go to the reception desk. After receiving the user and opening the form, they will be sent to triage, where they will undergo screening with the nursing team. Soon after, you will be taken to the place where you will wait for the dentistry team to call you for care.



The dental team will be responsible for pre-operative care, evaluation, preparation of a treatment plan and treatment of the user.

If the user does not have the criteria to carry out dental procedures in a surgical center due to the need for hospitalization, they will receive outpatient care in a dental office, as is currently the case. If the user needs to return to the service, they will be forwarded to scheduling. If there is no need to return, the patient's dental treatment will be considered completed.

If there is an indication and need for hospitalization, after a dental evaluation, the team will refer the user to a consultation with

Dental care for people with disabilities or special needs

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Version: 1.0
Description

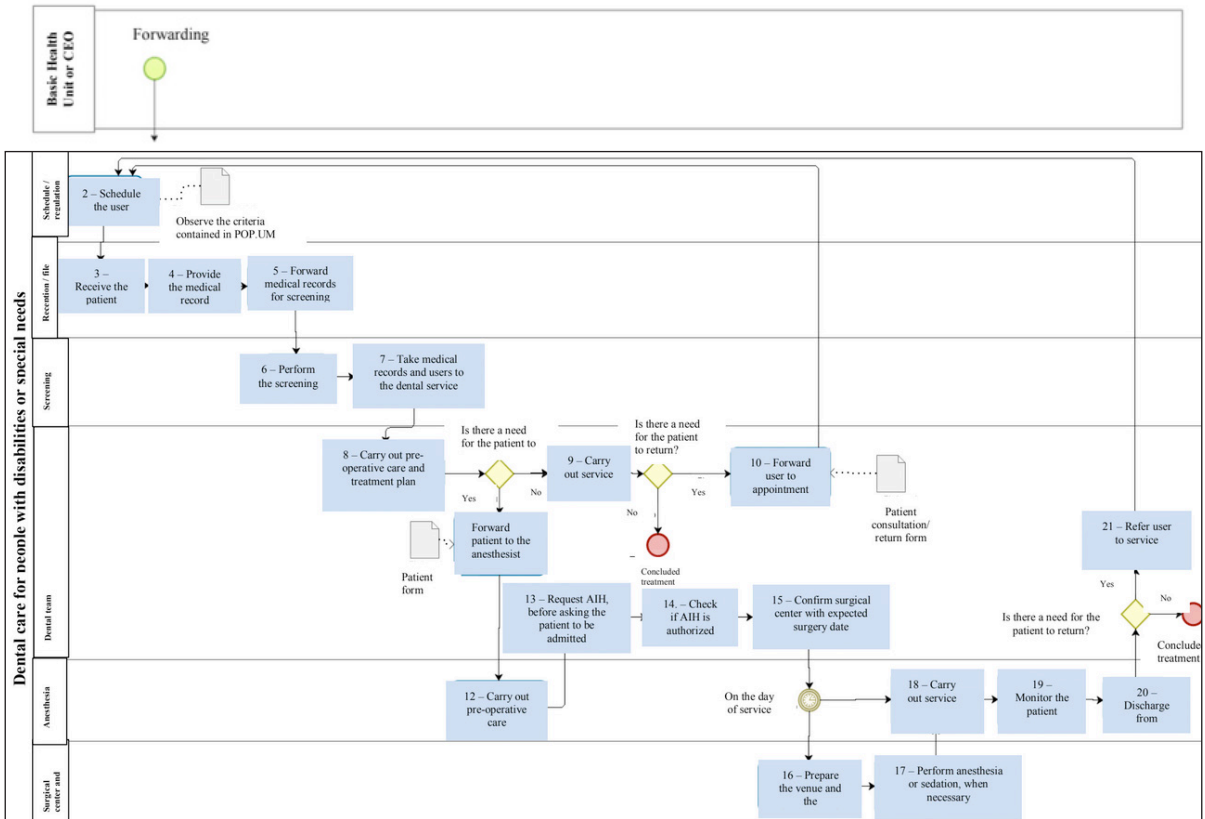
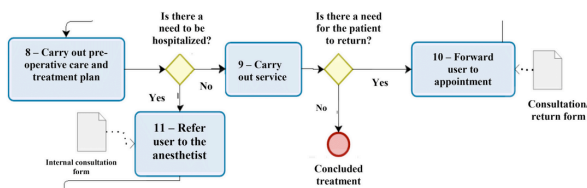


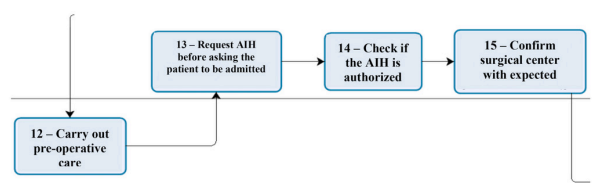
Figure 1: Flow of Dental Care for People with Disabilities or Special Needs at HDT-UFT

Source: Own elaboration (2022)

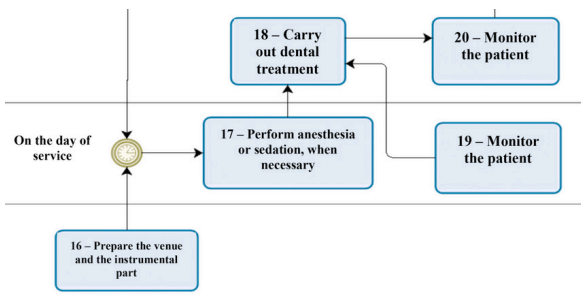
an anesthetist.



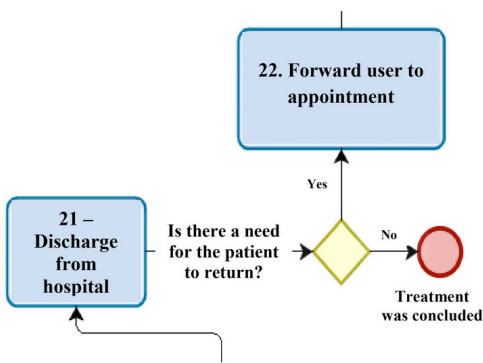
After pre-operative care has been carried out by the anesthetist, the dental team will be responsible for requesting authorization for hospital admission (AIH) before the patient is admitted, checking whether the AIH is authorized and confirming the surgical center with an expected date and time. of the procedure.



On the day of the service, the surgical center and CME (Sterile Material Center) team must prepare the place and instruments necessary for the service. Then, the anesthetist will perform sedation or general anesthesia, when necessary, and the dentist will carry out the planned dental treatment. The user will be observed and monitored by professionals during and after dental treatment.



The user will be discharged from hospital, when possible and if there is no need to return to service, their dental treatment will be completed. If there is a need to return, the user will be forwarded to scheduling.



BENEFITS TO USERS

Short term:

- Improved Access to Dental Care
- Improved Service Quality
- Reduced Waiting Time

Mid-term:

- Improved Oral Health: Users can experience a significant improvement in their oral health over time, which can lead to a reduction in dental illnesses and complications.
- Preventing Future Problems: Preventative interventions identified and implemented as a result of the study can help users avoid future dental problems, thus reducing the need for more invasive or expensive treatments.
- Patient Satisfaction

Long term:

- Improved Quality of Life: With improved oral health and the prevention of dental problems, users can experience a better quality of life in the long term, with less pain, discomfort and limitations related to oral health.
- Reduced Healthcare Costs: Preventing dental problems and promoting oral health can lead to a reduction in healthcare costs in the long term, both for users and the healthcare system as a whole.
- Social and Economic Impact: Improvements in users' oral health can have broader positive impacts on society, including economic benefits due to a healthier and more productive population, as well as social benefits related to self-esteem and social inclusion.

FINAL CONSIDERATIONS

Based on the study and survey carried out, it was verified that there is technical and financial feasibility in creating a dental service in the university hospital studied as a potential resource to improve the use of personnel, time and physical space.

It is also concluded that when implementing the service, adopting the elaborate protocol, there will be the possibility of an increase in the number of patients treated and multidisciplinary production, which can lead to better service in the area, as well as increased revenue and fundraising for the hospital.

Considering the educational aspect, with the creation of the service there will be an amplification of the field of study in the hospital, providing academics and residents with learning and carrying out comprehensive multidisciplinary work, based on resolving cases in an agile and efficient manner.

The structuring of the dental service at HDT-UFT will meet the needs of people with disabilities or special needs who require complex dental care in the Araguaína-TO region, contributing to the development of complete treatments and reducing dental needs for the population served.

Due to the scope of the study and despite efforts to mitigate biases, it is important to recognize that they may have influenced the results. Therefore, a longitudinal investigation and the investigation of additional variables that were not addressed in this study can help to elucidate aspects not previously considered, allowing a more comprehensive understanding.

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