

## **ORIGINAL ARTICLE**

# DATASUS and head and neck surgery: proposition for adequacy of codes for the SIGTAP oncological table

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## **Abstract**

Introduction: Head and neck (H&N) neoplasms present high epidemiologic importance regarding the incidence and prevalence of cancer in Brazil and worldwide. The 2005 National Cancer Care Policy brought important changes, including the creation of codes in the SIGTAP table for different surgical specialties. The Pressman and Wildavsky's Public Policy Implementation Theory was used to explain the implementation model of this policy. This study innovates by presenting a systematic review of the SIGTAP table codes in force, used by H&N surgeons, showing the discrepancy between what is proposed, the reality in the execution of procedures, and the gap in the amounts paid for medical fees and the values allocated for hospital services. **Objective**: To demonstrate that the SUS-SIGTAP table, with regard to surgical procedures performed by H&N surgeons, is not in accordance with reality both in terms of effectiveness and values allocated. Methods: Bibliographic, documentary and legislation search were conducted between 2005 and 2019. Results: The SIGTAP table is not in accordance with the execution of procedures and presents a gap regarding the amounts paid. **Conclusion**: The codes need to be readjusted to meet reality in several variables, such as the ICD, description, purpose, values allocated, and new technologies.

**Keywords:** head and neck cancer; public policy; cancer surgery.

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### Introduction

The 1988 Constitution was a milestone in the history of Brazilian public health. It defined health as "[...] a right of all and a duty of the State". During the continuous process of creation and evolution of the Brazilian National Health System (SUS), many policies were implemented and assistance models emerged until the creation of the SUS table (DATASUS). It is relevant to highlight the creation of the National Cancer Care Policy (NCCP) (Ministry of Health, ordinance no. 2439 Dec 8, 2005)2. Head and Neck (H&N) cancer presents a high death incidence on a global scale, constituting the sixth leading cause of death from cancer. Worldwide, approximately 200,000 new cases of H&N cancer are diagnosed per year<sup>2</sup>. In Brazil, approximately 13,470 new cases of cancer of the oral cavity are estimated per 100 thousand inhabitants, with rates of 10,060 for males and 3,410 for females<sup>3</sup>. The incidence of oral cancer in Brazil corresponds to 2% of all cancers, being one of the highest in the world and important in Latin America<sup>4</sup>. In Brazil, oral cancer is the fourth most common type of cancer in the population, with an estimation 14,700 new cases for this 2020<sup>5</sup>. A recent study conducted by the Federal Court of Auditors on the early detection of cancer using data from the High Complexity Procedure Authorizations, concerning the eight most prevalent types of cancer, shows that approximately 80% of the patients who started treatment for cancer at SUS were diagnosed with cancer as late as in stages III and IV for the following four cancer types: trachea/bronchus/lung (83%), thyroid (80%), stomach (79%) and oral cavity (79%)<sup>6</sup>, which only reinforces the importance of the H&N surgery specialty in the treatment of oncological pathologies. Due to the profile of the SUS patients and the advanced clinical stage that they present at initial diagnosis, and until the definitive surgical treatment is performed, more complex surgical procedures are required, which may include resection, reconstruction, or both. Such peculiarity of the anatomical areas, the possibility of severe aesthetic and functional impairment - potentially mutilating surgeries, histological types, and drainage sites demand a high incidence of the so-called "sequential surgeries in oncology", which are conditions in which more than one procedure is necessary for an adequate oncological surgical treatment. This study also provided information on the gap regarding the amounts paid for diagnostic procedures, as well as the values allocated for treatment. Thus, because H&N surgery is a specialty whose performance is quite complex, with need for strict training and patients with advanced neoplasms, it needs the attention of public authorities with respect to the preparation of the Table of Procedures, Medications, and Orthoses, Prostheses and Special Materials (SIGTAP), the amounts paid to professionals and institutions, as well as to the modernization and inclusion of new technologies, such as more suitable reconstruction prostheses, harmonic scalpels, and intraoperative monitoring of the nerves in selected cases. Currently, the values allocated to the surgical treatment of patients through Hospitalization Authorizations (AIH) are clearly insufficient in all aspects6.

Initially, the NCCP focused on oncology considered the epidemiological profile of cancer, produced by notifications and registries, and created specific treatment units based on partnerships between philanthropic institutions

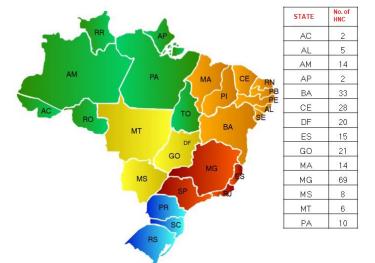
and the public initiative<sup>7</sup>. With regard to the current policy organization, it is important to mention that ordinance no. 741/058 promoted the reconfiguration of its criteria in order to enable units with high complexity in Oncology, adopting the following categories: units with high complexity in Oncology (UNACON) and reference centers of high complexity in Oncology (CACON), in addition to Law no. 12.732/129, which instituted the obligation to start oncological treatment within 60 days after diagnosis. From the point of view of financial resource allocation, instituted in the expansion phase, it is worth mentioning Law no. 12,715/12, which established 12 regulations that addressed the amounts paid for execution of the procedures<sup>7</sup>. The NCCP was then implemented through the top-down model, which consists of an ordered set of activities to achieve the previously established objectives, starting from the fact that the implementation begins with a decision of the central government that defines the relationship between objectives, public policy, and the means to be mobilized. In this conception, the implementation is specifically up to the officers, whose margin of decision is limited to the operational aspects and who must remain faithful to the original objectives of the policy<sup>10</sup>. Consequently, its execution consists of a set of strategies and actions taken by the street-level bureaucracy - in this case, the H&N surgeons – to resolve the daily problems and their effectiveness, and thus they are the main actors in the delivery of the products of this public policy<sup>11</sup>. According to Lipsky<sup>11</sup>, the implementation of public policies, in the end, is a responsibility of the people who actually implement them. It is these actors who face the problems associated with the activities of street-level bureaucracy<sup>12</sup>, such as scarcity of public resources, and need for constant negotiation with other actors, including other of levels of bureaucracy. LIPSKY states that street-level bureaucrats:

[...] often spend their work lives in these corrupted worlds of service. They believe themselves to be doing the best they can under adverse circumstances, and they develop techniques to salvage service and decision-making values within the limits imposed on them by the structure of the work. They develop conceptions of their work and of their clients that narrow the gap between their personal and work limitations and the service ideal<sup>11:XV</sup>.

With regard to the training of H&N surgery specialists, 100% of the training services are linked to SUS<sup>13</sup>, and depend on the remuneration listed on its tables, using the SIGTAP codes and the AIH for their operationalization. It can be said that all H&N surgeons depended, at some point along their education and career, solely and exclusively on the remuneration by SUS table to perform their services.

Better remuneration may also arouse greater interest in recent graduates to choose this specialty, in addition to motivating H&N specialists to move to the interior, a fact that does not occur, among other factors, due to the low remuneration and insecurity in rendering services to SUS in this part of the country.

The distribution of H&N surgeons in Brazil is presented ahead (Figure 1).



STATE	No. of HNC
PB	16
PE	35
PI	8
PR	21
RJ	53
RN	16
RO	3
RR	3
RS	26
SC	28
SE	8
SP	340
то	4

Figure 1. Distribution of head and neck surgeons in Brazil.

**Source:** Prepared by the authors.

# Research problem and objectives

However, there is a dissonance between what is described in the NCCP and its regulations and what the "street bureaucrats" actually do. With this, and through research on the theme, a gap was observed in the literature regarding studies addressing the codes of the SIGTAP Oncological Table and the execution of procedures by H&N surgeons, which led to the following study question: "Is there a correspondence between the codes of the SUS-SIGTAP Oncological Table and what is described and what is performed by H&N surgeons with regard to oncological surgical procedures?"

The main objective of this study was to analyze the codes available in the SUS-SIGTAP Table 1<sup>17</sup> and propose adjustments between what is described and what is executed.

This study is divided into five sections. In addition to the two previously presented sections, the third section describes the methodology used: a bibliographic, documentary and legislation search conducted, in a deductive and analytical-empirical way, between 2005 and 2019. The fourth section presents the results and our proposition for adequacy of codes compatible with reality. The last two sections present a discussion and our conclusion, respectively.

**Table 1.** Codes head and neck from datasus.

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416020151 - UNILATERAL CERVICAL RADICAL LYMPHADENECTOMY IN ONCOLOGY	Unilateral prophylactic or therapeutic dissection (UPTD) of cervical lymphatic chain(s) plus VIJ, sternocleidomastoid (SCM) muscle, and cranial nerve XI in case of H&N malignant tumor (including skin). In the surgical specimen, the lymph nodes may be free of malignant neoplasia	C770	IT IS CLEAR THAT THERE IS NO NEED FOR POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, AS IT MAY BE A RESCUE SURGERY	
0416020160 - UNILATERAL CERVICAL MODIFIED RADICAL LYMPHADENECTOMY IN ONCOLOGY	UPTD of cervical lymphatic chain(s) with preservation or VJI, and/or SCM or cranial nerve XI in case of H&N malignant tumor (including skin). In the surgical specimen, the lymph nodes may be free of malignant neoplasia	C770	IT IS CLEAR THAT THERE IS NO NEED FOR POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, AS IT MAY BE A PROPHYLACTIC DISSECTION, RESCUE SURGERY, AS WELL AS PERFORMANCE OF DIAGNOSTIC LYMPHADENECTOMY (THERE IS NO CODE)	NO POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, USE DESCRIPTION OF CODE 0416020208
0416020178 - UNILATERAL SUPRAOMOHYOID CERVICAL LYMPHADENECTOMY IN ONCOLOGY	UPTD of cervical lymphatic chain(s) of levels I, II and III in case of H&N malignant tumor (including skin). In the surgical specimen, the lymph nodes may be free of malignant neoplasia	C770	IT IS CLEAR THAT THERE IS NO NEED FOR POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, AS IT MAY BE A PROPHYLACTIC DISSECTION OR RESCUE SURGERY, AS WELL AS PERFORMANCE OF DIAGNOSTIC LYMPHADENECTOMY (THERE IS NO CODE)	NO POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, NO NEED TO USE DESCRIPTION OF CODE 0416020208
0416020186 - UNILATERAL RECURRENT CERVICAL LYMPHADENECTOMY IN ONCOLOGY	UPTD of level VI cervical lymph chain in case of H&N malignant tumor. In the surgical specimen, the lymph nodes may be free of malignancy	C770	IT IS CLEAR THAT THERE IS NO NEED FOR POSITIVE LYMPH NODES IN THE SURGICAL SPECIMEN, AS IT MAY BE A PROPHYLACTIC DISSECTION OR RESCUE SURGERY	USE DESCRIPTION OF CODE 0416020208
0416020208 - UNILATERAL SUPRACLAVICULAR LYMPHADENECTOMY IN ONCOLOGY	UPTD of the supraclavicular lymphatic chain in case of malignant tumor or, malignant, benign, or uncertain tumor	C770	THIS DESCRIPTION IS SUITABLE FOR DIAGNOSTIC CERVICAL LYMPHADENECTOMY PROCEDURES BECAUSE, AT THE TIME OF THE PROCEDURE, THERE IS A STRONG POSSIBILITY OF MALIGNANCY, TO BE EXCLUDED ONLY AFTER CONDUCTING A PATHOLOGICAL OR IMMUNOHISTOCHEMICAL EXAMINATION	

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030149 - LIP WEDGE EXCISION AND SUTURE IN ONCOLOGY	Wedge excision and primary suture for treatment of malignant lip tumor. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C000, C001, C002, C003, C004, C005, C006, C430, and C440	IN CASES OF SMALL TUMORS, WITH A CLINICAL HISTORY FAVORABLE TO MALIGNANT NEOPLASIA AND THAT WILL NOT CAUSE A MAJOR ESTHETIC DEFECT, IT IS POSSIBLE THAT THE INITIAL TREATMENT BE LESION EXCISION, WITH PREVIOUS BIOPSY UNNECESSARY	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DEFINITIVE
0416030157 - PARTIAL RESECTION OF LIP WITH GRAFTING OR FLAP IN ONCOLOGY	Partial resection of lip for treatment of malignant tumor followed by skin grafting or surgical flap. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C000, C001, C002, C003, C004, C005, C006, C008, C430, and C440	THESE ARE RESECTIONS WITH COMPLEX RECONSTRUCTIONS, WITH THE POSSIBILITY OF USING COMBINED SURGICAL FLAPS	POSSIBILITY OF INCLUDING THE MYOCUTANEOUS/ MYOMUCOSAL FLAP CODE IN CASES OF COMPLEX RESECTIONS
0416030351 - EXCISION OF MALIGNANT ORAL MUCOSA LESION IN ONCOLOGY	Total excision of malignant oral mucosa lesion for therapeutic purposes. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive.	C030, C031, C040, C041, C048, C051, C058, C060, C061, C062, C068, C090, C091, C098, C100, C101, C102, C103, C104, and C108	IN CASES OF SMALL TUMORS, WITH A CLINICAL HISTORY FAVORABLE TO MALIGNANT NEOPLASIA AND THAT WILL NOT CAUSE A MAJOR ESTHETIC DEFECT, IT IS POSSIBLE THAT THE INITIAL TREATMENT BE THE LESION EXCISION, WITH PREVIOUS BIOPSY NOT NECESSARY	
0416030173 - PARTIAL MAXILLECTOMY IN ONCOLOGY	Partial resection of the maxilla with or without resection of homolateral orbit with or without orbit dissection due to malignant tumor. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C030, C310, and C318	THE INITIAL PROCEDURE MAY BE PARTIAL LESION EXCISION, SINCE THERE IS NO CORRESPONDING CODE FOR THE DIAGNOSIS	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE IN CASES OF MINOR LESIONS

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030181 - TOTAL MAXILLECTOMY IN ONCOLOGY	Total resection of the maxilla with or without resection of lower anatomical structures, with or without orbital dissection due to malignant tumor. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C030, C310, AND C318		
0416030190 – GLOSSO-PELVI- MANDIBULECTOMY IN ONCOLOGY	Resection of the oral floor, tongue, and mandible due to malignant tumor of the oral cavity. It includes tracheostomy. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C040, C041, and C048.	TRACHEOSTOMY MAY OR MAY NOT BE PERFORMED, DEPENDING ON THE CASE	INCLUSION OF THE TRACHEOSTOMY CODE, WHEN PERFORMED. THIS IS AN ADDITIONAL SURGICAL PROCEDURE
0416030203 - EXPANDED TOTAL PAROTIDECTOMY IN ONCOLOGY	Total resection of the parotid, ascending branch of the mandible, mastoid process, and facial nerve in the intraosseous path due to malignant tumor or malignant, benign, or uncertain tumor. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C07 and D370	IT IS CLEAR THAT THERE IS NO NEED FOR A MALIGNANT TUMOR IN THE SURGICAL SPECIMEN SINCE THE DIAGNOSIS IS SUGGESTED BY CYTOLOGICAL AND NON-HISTOLOGICAL EXAMINATION, AND THE DESCRIPTION "due to malignant tumor or malignant, benign, or uncertain tumor" MUST BE OBSERVED	
0416030211 - PARTIAL PHARYNGECTOMY IN ONCOLOGY	Partial resection of the pharynx due to malignant tumor, with or without tracheostomy. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C100, C101, C102, C103, C104, C108, C110, C111, C112, C113, C118, C12, C130, C131, C132, and C138		PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE IN CASES OF MINOR LESIONS

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030220 - TOTAL PHARYNGECTOMY IN ONCOLOGY	Total pharyngeal resection due to malignant tumor. It includes tracheostomy. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C100, C101, C102, C103, C104, C108, C110, C111, C112, C113, C118, C12, C130, C131, C132, and C138.		INCLUSION OF THE TRACHEOSTOMY CODE, WHEN PERFORMED. THIS IS AN ADDITIONAL SURGICAL PROCEDURE
0416030238 - RESECTION OF NASOPHARYNX TUMOR IN ONCOLOGY	Total excision of malignant nasopharyngeal lesion for therapeutic purposes. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C110, C111, C112, C113, and C118.	RESECTIONS OF NASOPHARYNGEAL TUMORS MAY BE PARTIAL, FOR DIAGNOSTIC PURPOSES	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE IN CASES OF MINOR LESIONS EXCLUSION OF "TOTAL RESECTION" IN THE DESCRIPTION
0416030246 - ORBITAL EXENTERATION IN ONCOLOGY	Orbital exenteration due to malignant tumor. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C318, C410, C433, C431, C438, C448, C498, C696, and C698		
0416030254 - PARTIAL LARYNGECTOMY IN ONCOLOGY	Partial resection of the larynx due to malignant tumor, with or without tracheostomy, for therapeutic purposes. The surgical specimen may be free of malignancy. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C320, C321, and C322.	IN CASES OF SMALL TUMORS, WITH A CLINICAL HISTORY FAVORABLE TO MALIGNANT NEOPLASIA AND THAT WILL NOT CAUSE A MAJOR ESTHETIC DEFECT, IT IS POSSIBLE THAT THE INITIAL TREATMENT BE LESION EXCISION, WITH PREVIOUS BIOPSY NOT NECESSARY. TRACHEOSTOMY INVOLVES PERFORMING AN ADDITIONAL SURGICAL PROCEDURE	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE IN CASES OF MINOR LESIONS. INCLUSION OF THE TRACHEOSTOMY CODE, WHEN PERFORMED. THIS IS AN ADDITIONAL SURGICAL PROCEDURE

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030262 - TOTAL LARYNGECTOMY IN ONCOLOGY	Total laryngeal resection due to malignant tumor. It includes tracheostomy. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C320, C321, and C322.	TRACHEOSTOMY INVOLVES PERFORMING AN ADDITIONAL SURGICAL PROCEDURE. INCLUSION OF THE USE OF SURGICAL STAPLER TO CLOSE THE DEFECT	INCLUSION OF THE TRACHEOSTOMY CODE. THIS IS AN ADDITIONAL SURGICAL PROCEDURE WITH INCLUSION OF A SURGICAL STAPLER
0416030270 - TOTAL THYROIDECTOMY IN ONCOLOGY <sup>14</sup>	Total resection of the thyroid (lobes and isthmus) due to malignant tumor with or without parathyroid resection(s), with or without parathyroid reimplantation. The surgical specimen may be free of malignancy. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C73	IT IS CLEAR THAT THERE IS NO NEED FOR A MALIGNANT TUMOR IN THE SURGICAL SPECIMEN, SINCE THE DIAGNOSIS IS SUGGESTED BY CYTOLOGICAL AND NON-HISTOLOGICAL EXAMINATION, AND THE CLINICAL HISTORY, INTRAOPERATIVE ASPECT, AND ULTRASOUND MUST BE OBSERVED, TOGETHER WITH THE PREVIOUS PUNCTURE FOR THE DEFINITION OF INTRAOPERATIVE CONDUCT (SEE DESCRIPTION OF CODE 0416030360)	THERE IS NO DISTINCTION IN THE SURGICAL TECHNIQU TO PERFORM TOTAL THYROIDECTOMY USING FNAP SUGGESTIVE OF MALIGNANCY OR NOT. UNIFICATION OF CODES WITH THE USE OF ONCOLOGY. INSERTION OF THE THYROIDECTOMY TOTALIZATION CODE WHEN THE PATIENT HAS PREVIOUSLY UNDERGONE PARTIAL THYROIDECTOMY. WHEN REQUESTING RECURRENT DISSECTION, IT MAY BE PERFORMED BILATERALLY. POSSIBILITY OF INTRAOPERATIVE MONITORING OF THE APPLICANT IN SELECTED CASES. USE DESCRIPTION OF CODE 0416030360 "[] resection with sternotomy of malignant, benign, or uncertain tumor whether benign or malignant []" 15:22

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030360 - TRANSSTERNAL THYROID TUMOR RESECTION IN ONCOLOGY	Resection with sternotomy of malignant, benign, or uncertain tumor whether benign or malignant with extension to the upper mediastinum. The surgical specimen may contain a benign tumor. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C73 and D440	GIANT THYROID TUMORS THAT ENTER THE UPPER MEDIASTINUM MAY BE RESECTED WITHOUT THE NEED FOR STERNOTOMY	REMOVE THE NEED FOR STERNOTOMY FROM THE DESCRIPTION. IT WILL BE PERFORMED IN VERY SPECIFIC CASES
0416030289 - PHONATION RECONSTRUCTION IN ONCOLOGY	Procedure for reconstruction of the structure for the implantation of voice prosthesis after total laryngectomy. It can be a sequential procedure when performed in the same anesthesia used for the total laryngectomy, or isolated when performed subsequently to the total laryngectomy predicted in another anesthesia	C320, C321, C322, C328, and C329		INCLUSION OF THE PROSTHESIS VALUE IN THE HOSPITAL SERVICE COMPATIBLE WITH THE MARKET COST
0416030297 - TRANSTUMORAL TRACHEOSTOMY IN ONCOLOGY	Transthumoral tracheostomy in case of malignant neoplasm of the larynx or thyroid	C320, C321, C322, C323, C328, C329, and C73	THERE ARE OTHER NEOPLASM LOCATIONS THAT GIVE RISE TO TRANSTUMORAL TRACHEOSTOMY: ESOPHAGUS, BASE OF THE TONGUE, AMONG OTHERS	REMOVAL OF THE LARYNGEAL AND THYROID NEOPLASM SPECIFICATION; INCLUSION ONLY OF THE ICD-RESPIRATORY FAILURE

**Table 1.** Continued...

CODE – PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030300 - PARTIAL MANDIBULECTOMY IN ONCOLOGY	Partial resection of the mandible with or without resection of other anatomical structures due to malignant tumor or uncertain tumor whether benign or malignant. It admits sequential procedure(s).  The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C411, C795, M873, and D165	RESECTIONS OF MANDIBLE TUMORS MAY BE PARTIAL, WITH DIAGNOSTIC PURPOSES FOR COMPLETE RESECTIONS	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE IN CASES OF SMALL REMAINING LESIONS
0416030319 - TOTAL MANDIBULECTOMY IN ONCOLOGY	Total resection of the mandible with or without resection of other anatomical structures due to malignant tumor or uncertain tumor whether benign or malignant. It admits sequential procedure(s).  The unilateral cervical lymphadenectomy procedures are mutually exclusive. Plastic surgery procedures are mutually exclusive	C411, C795, M873, and D16		UPDATE HOSPITAL SERVICE VALUES TO THE COST OF PROSTHESES AND INCLUDE TEMPOROMANDIBULAR JOINT (TMJ) PROSTHESIS
0416030327 - EAR RESECTION IN ONCOLOGY	Partial or total resection of the auricle due to malignant tumor. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive	C432 and C442	IN CASES OF SMALL TUMORS, WITH A CLINICAL HISTORY FAVORABLE TO MALIGNANT NEOPLASIA AND THAT WILL NOT CAUSE A MAJOR ESTHETIC DEFECT, IT IS POSSIBLE THAT THE INITIAL TREATMENT BE LESION EXCISION, WITH PREVIOUS BIOPSY NOT NECESSARY. IT IS ESSENTIAL TO SEPARATE PARTIAL/TOTAL RESECTION, SURGICAL TECHNIQUES, AND DIFFERENT OUTCOMES	CREATION OF SEPARATE CODES FOR PARTIAL AND TOTAL RESECTIONS OF THE AURICLE, WITH THEIR RESPECTIVE RECONSTRUCTIONS. THESE ARE COMPLETELY DIFFERENT PROCEDURES WITH SPECIFIC COMPLEXITIES

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030335 - CAROTID LIGATION IN ONCOLOGY	Unilateral or branch carotid ligation in case of malignant H&N tumor. Maximum of two only in case of bilateral branch ligation. Sequential procedures are mutually exclusive	CONSULT		
0416030343 - RESECTION OF GLOMUS TUMOR IN ONCOLOGY	Resection of glomus tumor. It admits sequential procedure(s)	D447		IN THE CASE OF CAROTID GLOMUS TUMORS, EVALUATE THE POSSIBILITY TO INCLUDE THE USE OF A HARMONIC SCALPEL <sup>16</sup>
0416080120 - MULTIPLE EXCISION OF SKIN OR SUBCUTANEOUS TISSUE LESION IN ONCOLOGY	Excision of two or more malignant lesions of the skin or subcutaneous tissue in one or more parts of the body with primary suture, that is, without additional reconstructive procedures. The surgical specimen may be free of malignancy. It admits the sentinel lymph node as a sequential procedure in case of malignant cutaneous melanoma according to protocol and guidelines of the Ministry of Health	C431, C432, C433, C434, C435, C436, C437, C438, C441, C442, C443, C444, C445, C446, C447, C448, C490, C491, C492, C493, C494, C495, C496, C498, and C792	WHEN THERE IS NEED FOR RECONSTRUCTION WITH SKIN GRAFTING OR SURGICAL FLAP, SIMPLE OR COMBINED, THERE IS NO COMPATIBLE CODE. OBSERVE THE LYMPHADENECTOMY SPECIFICATION ONLY IN THE CASE OF MELANOMA. THERE IS NO CODE FOR RESECTION OF ONLY ONE LESION	SEPARATION OF CODES BY: - RESECTION WITH PRIMARY SUTURE; - RESECTION WITH RECONSTRUCTION WITH THE POSSIBILITY OF INCLUDING RECONSTRUCTION CODES; - REMOVAL OF THE MELANOMA SPECIFICATION FOR DISSECTION, IT MAY BE A SQUAMOUS CELL CARCINOMA (SCC) OR BASAL CELL CARCINOMA (BCC)
0416030017 - PARTIAL PAROTIDECTOMY IN ONCOLOGY	Resection of the parotid superficial lobe due to benign, malignant, or uncertain whether benign or malignant tumor. The surgical specimen may be free of neoplasia. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive) and, in case of skin invasion, it admits sequential synthesis procedure (the procedures are mutually exclusive)	C07 and D370	IT IS CLEAR THAT THERE IS NO NEED FOR A MALIGNANT TUMOR IN THE SURGICAL SPECIMEN, SINCE THE DIAGNOSIS IS SUGGESTED BY CYTOLOGICAL AND NON-HISTOLOGICAL EXAMINATION, AND THE DESCRIPTION "due to malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	REMOVAL OF THE SUPERFICIAL LOBE SPECIFICATION IN THE DESCRIPTION

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030025 - MINOR SALIVARY GLAND EXCISION IN ONCOLOGY	Excision of minor salivary gland for treatment of malignant tumor or uncertain whether benign or malignant tumor. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)		THE DESCRIPTION "for malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	INCLUSION OF CODES FOR RECONSTRUCTION
0416030033 - SUBLINGUAL GLAND EXCISION IN ONCOLOGY	Excision of sublingual gland for treatment of malignant tumor or uncertain whether benign or malignant tumor. The surgical specimen may be a benign tumor. It admits sequential procedure(s), with unilateral cervical lymphadenectomy procedures being mutually exclusive.		THE DESCRIPTION "for malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	INCLUSION OF CODES FOR RECONSTRUCTION
0416030041 - SUBMANDIBULAR GLAND EXCISION IN ONCOLOGY	Excision of submandibular gland for treatment of malignant tumor or uncertain whether benign or malignant tumor. The surgical specimen may be a benign tumor. It admits sequential procedure(s), with unilateral cervical lymphadenectomy procedures being mutually exclusive		THE DESCRIPTION "for malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	INCLUSION OF CODES FOR RECONSTRUCTION
0416030068 - PARTIAL GLOSSECTOMY IN ONCOLOGY	Partial resection of the tongue for the treatment of malignant tumor. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)		IN CASES OF SMALL TUMORS, WITH A CLINICAL HISTORY FAVORABLE TO MALIGNANT NEOPLASIA AND THAT WILL NOT CAUSE A MAJOR ESTHETIC DEFECT, IT IS POSSIBLE THAT THE INITIAL TREATMENT BE LESION EXCISION, WITH PREVIOUS BIOPSY NOT NECESSARY	PREVIOUS BIOPSY IS NOT REQUIRED TO PERFORM THE PROCEDURE, BECAUSE THE INITIAL PROCEDURE MAY BE DIAGNOSTIC OR DEFINITIVE, IN THE CASE OF SMALL TUMORS. INCLUSION OF CODES FOR RECONSTRUCTION

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416030076 - TOTAL GLOSSECTOMY IN ONCOLOGY	Total resection of the tongue for the treatment of malignant tumor with tracheostomy. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. Plastic surgery procedures are mutually exclusive			INCLUSION OF THE TRACHEOSTOMY CODE. THIS IS AN ADDITIONAL SURGICAL PROCEDURE
0416030092 - TOTAL PAROTIDECTOMY IN ONCOLOGY	Total resection of the parotid due to malignant tumor or uncertain whether benign or malignant tumor. The surgical specimen may be free of malignancy. It admits sequential procedure(s). The procedures for unilateral cervical lymphadenectomy are mutually exclusive. In case of skin invasion, it admits sequential plastic surgery procedure (the procedures are mutually exclusive)	C07 and D370.	IT IS CLEAR THAT THERE IS NO NEED FOR A MALIGNANT TUMOR IN THE SURGICAL SPECIMEN, SINCE THE DIAGNOSIS IS SUGGESTED BY CYTOLOGICAL AND NON-HISTOLOGICAL EXAMINATION, AND THE DESCRIPTION "due to malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	
0416030084 - TOTAL PARATHYROIDECTOMY IN ONCOLOGY	Total resection parathyroid due to malignant tumor. The surgical specimen may be free of malignancy. It admits one of the types of unilateral cervical lymphadenectomy as a sequential procedure (the procedures are mutually exclusive)	C750 and D442	IT IS CLEAR THAT THERE IS NO NEED FOR A MALIGNANT TUMOR IN THE SURGICAL SPECIMEN, SINCE THE DIAGNOSIS IS SUGGESTED BY CYTOLOGICAL AND NON-HISTOLOGICAL EXAMINATION, AND THE DESCRIPTION "due to malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	

**Table 1.** Continued...

CODE - PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
0416080014 - EXCISION AND SKIN GRAFTING IN ONCOLOGY	Resection of the skin segment due to malignant tumor and reconstruction of the area with skin autografting (skin from the donor area of the patient themself). The surgical specimen may be cancer-free when the procedure is indicated for widening surgical margins. It admits the sentinel lymph node as a sequential procedure in case of malignant cutaneous melanoma according to the protocol and guidelines of the Ministry of Health			REMOVAL OF THE MELANOMA SPECIFICATION FOR DISSECTION, IT COULD BE A SCC OR A BCC
0416080030 - EXCISION AND SUTURE WITH Z PLASTIC ON THE SKIN IN ONCOLOGY	Resection of the skin segment due to malignant tumor and reconstruction of the area using the zetaplasty technique. The surgical specimen may be cancer-free when the procedure is indicated for widening surgical margins. It admits the sentinel lymph node as a sequential procedure in case of malignant cutaneous melanoma according to the protocol and guidelines of the Ministry of Health			REMOVAL OF THE MELANOMA SPECIFICATION FOR DISSECTION, IT COULD BE A SCC OR BCC
0416080081 - RECONSTRUCTION WITH MYOCUTANEOUS FLAP (ANY PART) IN ONCOLOGY	Reconstruction after extensive resection in oncology performed using a flap composed of muscle tissue and skin, containing vascularization and innervation. Excluding any other reconstruction procedure. In case of breast reconstruction, it can admit silicone breast prosthesis as material (0702080039)		IT IS CLEAR THAT THERE IS NO NEED FOR A DIAGNOSIS OF A MALIGNANT TUMOR, AND THE DESCRIPTION "due to malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED	INCLUSION IN THE DESCRIPTION OF MALIGNANT, BENIGN, OR UNCERTAIN TUMOR

Table 1. Continued...

CODE – PROCEDURE	DESCRIPTION	ICD*	DISCUSSION	PROPOSITION
04.16.09.013-3 - RESECTION OF SOFT TISSUE TUMOR IN ONCOLOGY	Soft tissue resection due to malignant tumor or uncertain whether benign or malignant tumor. The compatibility of superficial lymphadenectomy is according to the tumor topography. Sequential reconstructive plastic procedures are mutually exclusive	C490, C491, C492, C493 Cc494, C495, C496 D481, D482, And D482	THE DESCRIPTION "due to malignant tumor or uncertain whether benign or malignant tumor" MUST BE OBSERVED. IT SHOULD NOT BE RESTRICTED TO SARCOMAS	THE SOFT PARTS CORRESPOND TO A GROUP OF TISSUES LOCATED BETWEEN THE EPIDERMIS AND THE VISCERA, WITH EXCEPTION OF THE BONES. SARCOMA IS A TYPE OF SOFT TISSUE TUMOR

## **Methods**

This study was conducted using a deductive approach through an analytical-empirical method<sup>18</sup>. Collection of data and information occurred in two stages. First, we sought to verify the historical evolution of the public health oncology policy in academic publications. A literature search was conducted at the SciELO, Google Scholar and Virtual Health Library databases to select the main publications addressing the study themes between 2005, when the NCCP began to be implemented, and September 2019, the time of the last publication on the Oncology Policy. Only digital documents were analyzed. In the second stage, a search was conducted on the legislation using the SUS-SIGTAP table as the main source, separating the codes related to H&N surgery. Finally, a documentary analysis was performed based on the descriptive data collected in the previous stages.

H&N surgery is the only surgical specialty that has civil investigations in the state of Bahia, where it has the objective of providing treatment, highlighting the importance of discussion<sup>19-21</sup>.

## **Results**

We decided to present all the codes that involve H&N surgery procedures and discuss those considered typical or relevant in the specialty due to their rate of recurrence<sup>14</sup>.

Here we would like to make an analogy with code 0416120040 – EXCISION OF NONPALPABLE BREAST LESION WITH MARKING IN ONCOLOGY<sup>a</sup> (BY BREAST)<sup>14</sup>:

[...] it consists in excising a breast segment comprising a nonpalpable lesion or focal asymmetric density or microcalcifications suspected of malignancy with Breast Imaging-Reporting and Data System (BI-RADS) categories 4, 5 or 6 on mammography or ultrasound (US) therapeutic

<sup>&</sup>lt;sup>a</sup> It updates, by exclusion, inclusion and alteration, the oncological surgical procedures in the Table.

treatment performed after diagnosis. Test results may not show malignancy. The complementary therapeutic surgical procedure, if indicated, is performed after a histopathological diagnosis of frozen (as a sequential procedure) or paraffin sections.

Both diagnostic procedures, breast and thyroid, are performed by fine needle aspiration biopsy (FNAB). These are cytological and non-histological examinations only suggestive of cancer<sup>22,23</sup>, and there may be false negative or false positive cases. FNAB has the function of initially directing the conduct, whether surgical or not, associated with other criteria such as US imaging, presence of lymph nodes, family history, nodule size, tumor markers, among others<sup>23</sup>. It is worth noting that, in the case of non-melanoma skin neoplasms, countless aspects and the need for adaptation should be considered, for instance, it is not possible to perform sequential procedures, with resection and reconstruction, because as it is described in the code, these can only be performed in cases of melanoma-type skin neoplasms; or perform lip tumor excisions due to their great mutilating potential in cases greater than 30%, which require complex flaps and not only one code is adequate for both skin grafting or surgical flap - these are different procedures with different levels of complexity, depending on the lesion. Reconstructions in H&N surgery are generally complex because, in addition to considering esthetics, function is predominant, with great need for the use of myocutaneous flaps, and there is only one code available for reconstruction, with limitations such as those previously mentioned in the table discussion. The description of total thyroidectomy, with "need for malignant neoplasm", is inadequate when observing the description of intrathoracic goiter extirpation, which contains the correct "malignant, benign, or uncertain" tumor presentation. It is noticed that there are few codes that allow more than one procedure, hence the need for combined surgeries through procedures such as sequential surgeries. Such level of detail is extremely important so that surgeons are not subject to the discretion of SUS auditors and regulators, who generate situations of distrust because they do not clearly understand the procedure performed by the specialists and only bureaucratically follow what is described in the code, thus requiring the specialists to fill in a multitude of reports to justify their work; not to mention the fact that the table, as it is today, is a major barrier to access. Finally, serious distortions are perceived with regard to the values, which show prevalence of very low amounts paid to the professionals and allocated to the hospitals, as exemplified in code 0416080120 - MULTIPLE EXCISION OF SKIN OR SUBCUTANEOUS TISSUE LESION IN ONCOLOGY, in which BRL 140.06 and BRL 425.80 are allocated to medical fee and hospital service, respectively. The SIGTAP table needs to undergo many adjustments regarding code description, the International Statistical Classification of Diseases and Related Health Problems (ICD), purpose, and values allocated, since these date from 2012.

## **Discussion**

Due to peculiarities in the anatomical areas covered by the H&N surgery specialty, some structures located in this region should not be subjected to biopsy exams, when histological samples are collected for analysis. For this

purpose, CYTOLOGICAL exams are collected, which are only SUGGESTIVE and not DIAGNOSTIC for cancer, and in which only cells but not tissues are collected, with no distinction in treatment for surgical pathologies in these glands, with the same surgical technique used for the treatment of benign and malignant diseases, hence the importance of clarifying the specification of "malignant, benign, or uncertain" tumors to lessen differences in interpretation.

It is worth mentioning the absence of codes related to resection of upper and lower eyelids with reconstruction, resection of lesions on the nose with subsequent reconstruction, and reconstruction following resection of scalp lesions, as well as difficulties regarding codes on skin lesions because, currently, there is no code describing excision of single lesions, or resections, dissection, and reconstruction with myocutaneous flap in patients with non-melanoma skin cancer. The amounts paid according to the SIGTAP table have not been updated in seven years, since the Oncological Policy and the table were created. H&N patients are, by definition, complex patients, with pathologies of highly mutilating power, requiring specialized monitoring in addition to appropriate institutions with multidisciplinary and highly complex teams for their treatment. Permanence of the current values only discourages the medical professional from providing services to SUS, as well as the institutions, since the only current form of remuneration is through payment for the services performed, in the vast majority of the cases. The incidence of H&N cancer and its prevalence have been increasing, as previously mentioned for cancer of the thyroid and oral cavity, also with the involvement of increasingly younger patients.

Of the 40 codes selected for analysis, only nine (22.5%) are compatible with reality with respect to what is proposed and what is executed, demonstrating that in 77.5% of the codes some adaptation is necessary considering criteria such as description, purpose, values allocated, and the ICD.

## **Conclusions**

Head and neck surgery is an eminently oncological specialty that render services to SUS in all Brazilian regions. However, as previously shown, the readjustment included in the Brazilian Ministry of Health ordinance still need to be confirmed with regard to the adequacy of the SIGTAP table oncological codes for the procedures performed, the ICD, description, amounts paid to the professionals, and values allocated to hospital services. The impact of this lack of adequacy lies in the fact that, with the current proposition, if a H&N surgeon follows only what is described in the SIGTAP table, as a barrier of access to the SUS users would be configured, as previously explained. Discretion in interpreting what is described only brings more insecurity to the executing street bureaucrats - the H&N surgeons. They have to cope with all the already known difficulties of the Public Health System, as well as with the low amounts paid for their service, which are a great disincentive to the provision of service in the public health network.

The SIGTAP table does not mention issues related to the impossibility of diagnosis through FNAP, is not adequate to the reality faced, is silent in many situations such as lesions on the eyelids, nose and scalp, does not bring the possibility for inclusion of procedures not covered, as well the

inclusion of new technologies<sup>24,25</sup> in specific situations, such as intraoperative monitoring of nerves<sup>26</sup>, harmonic scalpel<sup>27</sup> and prostheses more suitable for reconstruction, which are not included in the SUS list or present unrealistic values<sup>28,29</sup>. Such reality, the inadequacy between what is described and what is executed in the NCCP, is also found in other surgical oncology specialties, an academic field that has not yet been explored, and which may bring great contributions to better assistance to the population<sup>30</sup>, as well as guarantee more security for the professionals who are the executing street bureaucrats. Research in the area presents a large field of investigation, such as the gap in the amounts paid for procedures, the values allocated to hospital services, and the impact caused on the oncology care policy.

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