

Speech therapy performance in dysphagic cancer patients: use of indicators

Atuação fonoaudiológica no paciente oncológico disfágico: uso de indicadores

Rendimiento de la terapia del habla en pacientes con cáncer de disfagia: uso de indicadores

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Abstract

Objective: To describe hospital speech therapy in dysphagic cancer patients. **Methods:** Cross-sectional, retrospective, descriptive, quantitative study, developed in an oncology hospital. The sample consisted of medical records of cancer patients who underwent speech therapy follow-up for dysphagia. Speech therapy indicators of dysphagia were applied and the oral food intake scale (FOIS) was compared before and after speech therapy. **Results:** The sample had 400 medical records, 189 were included in the GA (outpatient group) and 211 in the IG (hospitalization group). The general mean age of the sample corresponds to 60.35 ± 12.63 , with a predominance of men 263 (65.8%). In relation to the neoplasms presented by the patients: 247 head and neck, and 43 esophagus and stomach. In GA 143 (75.7%) patients improved the FOIS scale after therapy, 33 patients (17.5%) maintained the same level and 13 patients (6.9%) presented worsening in FOIS after the therapeutic process. In GI 103 (48.8%) patients improved after therapy, 81 patients (38.4%) maintained the same level on the scale, and 27 patients (12.8%) presented worsening after speech therapy. **Conclusion:** The establishment of indicators in the

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Authors' contributions:

MCL, proposal elaboration, data collection, article writing.

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performance of dysphagic patients allows identifying and quantifying improvements in care processes, bringing direct benefits to patients, assisting in the characterization of the population served, optimizing and improving processes and results, aiming at improving the quality of services, as well as reducing length of stay and hospital costs.

Keywords: Quality indicators in health care; Oncology; Deglutition disorders; Speech therapy; Oncology Service, Hospital.

Resumo

Objetivo: Descrever a atuação fonoaudiológica hospitalar no paciente oncológico disfágico. **Métodos:** Estudo transversal, retrospectivo, descritivo, quantitativo, desenvolvido em um hospital oncológico. A amostra foi composta por prontuários de pacientes com câncer que realizaram acompanhamento fonoaudiológico para disfagia. Foram aplicados indicadores fonoaudiológicos de disfagia e comparada a escala de ingestão de alimentação por via oral (FOIS) antes e após terapia fonoaudiológica. **Resultados:** A amostra contou com 400 prontuários, 189 foram incluídos no GA (grupo ambulatorio) e 211 no GI (grupo internação). A média geral da idade da amostra corresponde a $60,35 \pm 12,63$, sendo o predomínio de homens 263 (65,8%). Quanto às neoplasias apresentadas pelos pacientes: 247 cabeça e pescoço e 43 esôfago e estômago. No GA 143 (75,7%) pacientes melhoraram a escala FOIS pós-terapia, 33 pacientes (17,5%) mantiveram o mesmo nível e 13 pacientes (6,9%) apresentaram piora na FOIS após o processo terapêutico. No GI 103 (48,8%) pacientes melhoraram pós-terapia, 81 pacientes (38,4%) mantiveram o mesmo nível na escala, e 27 pacientes (12,8%) apresentaram piora após a terapia fonoaudiológica. **Conclusão:** O estabelecimento de indicadores na atuação junto ao paciente disfágico permite identificar e quantificar as melhorias dos processos assistenciais, trazendo benefícios diretos aos pacientes, auxiliando na caracterização da população atendida, otimizando e aprimorando os processos e resultados, visando o aprimoramento da qualidade dos serviços prestados, bem como redução do tempo de internação e dos custos hospitalares.

Palavras-chave: Indicadores de qualidade em assistência à saúde; Oncologia; Transtornos de deglutição; Fonoaudiologia; Serviço hospitalar de Oncologia.

Resumen

Objetivo: describir la logopedia hospitalaria en pacientes con cáncer de disfagia. **Métodos:** Estudio transversal, retrospectivo, descriptivo, cuantitativo, desarrollado en un hospital de oncología. La muestra consistió en registros médicos de pacientes con cáncer que se sometieron a terapia del habla por disfagia. Se aplicaron indicadores de disfagia a la terapia del habla y se comparó la escala de ingesta de alimentos orales (FOIS) antes y después de la terapia del habla. **Resultados:** La muestra tenía 400 registros médicos, 189 se incluyeron en el GA (grupo de pacientes ambulatorios) y 211 en el IG (grupo de hospitalización). La edad media general de la muestra corresponde a $60,35 \pm 12,63$, con predominio de hombres 263 (65,8%). En cuanto a las neoplasias presentadas por los pacientes: 247 cabeza y cuello y 43 esôfago y estômago. En GA 143 (75.7%) los pacientes mejoraron la escala FOIS después de la terapia, 33 pacientes (17.5%) mantuvieron el mismo nivel y 13 pacientes (6.9%) presentaron empeoramiento en FOIS después del proceso terapéutico. En GI 103 (48.8%) los pacientes mejoraron después de la terapia, 81 pacientes (38.4%) mantuvieron el mismo nivel en la escala y 27 pacientes (12.8%) presentaron empeoramiento después de la terapia del habla. **Conclusión:** El establecimiento de indicadores en el trabajo con el paciente con disfagia permite identificar y cuantificar las mejoras de los procesos de atención, brindando beneficios directos a los pacientes, ayudando en la caracterización de la población atendida, optimizando y mejorando los procesos y resultados, con el objetivo de mejorar la calidad de los servicios. proporcionado, así como la reducción de la estancia hospitalaria y los costos hospitalarios.

Palabras clave: Indicadores de calidad de la atención médica; Oncología Trastornos de deglución; Terapia del habla; Servicio de oncología hospitalaria.

Introduction

Cancer is the result of a multifactorial process that consists of several stages, characterizing a disease that requires the highest technical level of treatment performed by several health professionals, including speech therapists¹. The treatments proposed for the most varied types of cancer usually involve surgery, radiation therapy, chemotherapy or a combination thereof². These can cause anatomo-physiological changes in the stomatognathic system, changing functions such as swallowing, voice, speech, chewing and even breathing. Dysphagia can be found in patients with different types of cancer or as a result of their treatments. In both situations, it can result in restrictions on the patient's quality of life³.

Speech therapy intervention in cancer patients can occur in a hospital setting and in an outpatient sector, being common and important for individuals who have undergone cancer surgery⁴. The speech therapist has the role of providing care to this individual in an early, preventive, intensive way, guiding the multidisciplinary patient support team, and clarifying the objectives of therapy in the face of changes in communication and swallowing, that the underlying disease may leave⁴.

As a way to compare and monitor the performance of health institutions and the professionals who work in it, indicators are used. The indicator is defined as a form of quantifiable representation of the service or process characteristics, and is used to monitor and qualify the results over time, allowing short, medium and long term performance assessment⁵.

In view of this, a greater effort on the part of professionals to identify, organize, systematize and operationalize the procedures and goals of rehabilitation programs in dysphagia is essential, in order to improve the practice of the speech therapist. The indicators for speech therapy science contribute significantly to the perspective of evidence-based speech therapy^{6,7}. These indicators are already used by several reference centers in speech therapy rehabilitation in Brazil⁸, such as the time for assessment using the oral route, and the time for removing the alternative route of food, which aim to quantify the time and milestones for patient improvement. However, it is poorly described in the literature with cancer patients.

The establishment of performance indicators, processes and results of work with the dysphagic patient allows characterizing the population served, optimizing and improving the processes and results, aiming at improving the quality of the services provided, as well as reducing the length of hospital stay and costs⁹. Therefore, the hypothesis of this study is to verify the possibility of using indicators in the practice of acting on dysphagia of cancer patients. In this sense, this research aims to describe the performance of hospital speech therapy in dysphagic cancer patients, through the use of indicators.

Material and methods

This is a retrospective cross-sectional study carried out in a highly complex oncology referral hospital in southern Brazil. The research was approved by the Research Ethics Committee of the Irmandade Santa Casa de Misericórdia of Porto Alegre and by the Ethics Committee of the Federal University of Health Sciences of Porto Alegre under the Certificate of Presentation for Ethical Appreciation (CAAE) n°: 51045215.1.3001.5345, which, due to the nature of the study, the analysis of the database, dispensed with the need for a free and informed consent form (ICF) by all the subjects involved or their guardians. A retrospective cross-sectional study was chosen to characterize the objective of the study, in which the passage of each patient through the oncology hospital was characterized and classified.

The sample consisted of all electronic medical records of oncology patients, attended via the Unified Health System (UHS), who underwent monitoring and speech therapy management for dysphagia, in the outpatient and hospitalization sectors, between August 2015 and August 2016. There were considered as inclusion criteria: electronic medical records of adult patients followed up at the institution, diagnosed with cancer, and who had received speech therapy for dysphagia. Exclusion criteria were considered: incomplete electronic medical records, or patients that had received speech therapy for a specialty other than dysphagia. For a better understanding of the care for dysphagic cancer patients, the sample was divided into two groups: patients seen at the outpatient clinic (outpatient group - GA) and those seen at the hospital (inpatient group - IG).

For the characterization of the service, some indicators were used, available in Table 1. In it are the description of the indicator, its objective and the form of calculation to obtain the result for each indicator. These indicators were developed by speech therapists in order to assist in the management of hospital speech therapy for dysphagia⁶, based on the performance standardized for a swallowing rehabilitation program (SRP), and are not yet validated. Other information from the medical record was collected according to a protocol designed specifically for the work, such as age, clinical diagnosis, time since the underlying disease, if

previous surgery was performed, if any conservative treatment was performed, etc., to characterize the sample. To measure the therapeutic results of dysphagia speech therapy, data were collected from the oral food intake scale - Functional oral intake scale (FOIS)¹⁰, in the first speech therapy evaluation and in the last service available in the system. This scale is validated and is classified by the degree of oral intake in which it is divided into seven levels, ranging from level 1 which means nothing orally, to level 7, which represents total oral route without restrictions.

Table 1. Dysphagia evaluation indicators, with their objectives and the way they were calculated

Indicator	Objective	Calculation method
Swallowing assessment index	Monitor service performance for the number of evaluations performed	Total number of assessments / number of hospitalizations (hospital admissions).
Rate of attendance per patient	Track the number of services provided to each patient	Total number of visits / number of patients attended
Index of attendance by speech therapist	Monitor the number of visits made by each therapist	Total number of consultations performed / number of speech therapists
Index of patients attended	Monitor the demand of patients attended per day against the patient-day hospital indicator	Number of speech-language pathologist / hospital-patient number.
Evaluation rate per service unit	Check which units require the most care for swallowing rehabilitation	Evaluation number per unit / total evaluations
Demand index for swallowing rehabilitation	Identify the expressiveness of the care demand for the speech therapy service in view of the Hospital patient-day indicator	Number of visits / number of patient-days
Time for swallowing assessment	Check the time between the passage of the alternative feeding route and the request for swallowing assessment	Average number of days between the passage of the alternative route of feeding and the speech therapy evaluation
Time to remove the alternative feeding route	Check the time (in days) from the first swallowing assessment to the removal of the alternative feeding route	It is demonstrated by the% of patients who take the alternative feeding route from 0-5 days or 6 to 10 or 11 to 15 or above 15 days and / or average
Time for reintroduction of oral feeding	Check the time (in days) from the first swallowing assessment to the beginning of the oral feeding reintroduction process	It is demonstrated by the% of patients who are able to start feeding orally in 0-5 days or 6 to 10 or 11 to 15 or above 15 days and / or average
Decannulation time	Check the time (in days) spent between speech therapy evaluation and tracheostomy decannulation	Check the time (in days) spent between speech therapy evaluation and tracheostomy decannulation

The data were extracted by a researcher, safeguarding the conditions of confidentiality and use of patient data, as approved by the institution's ethics committee, and grouped in the Excel® version 2010 program. Afterwards, they were submitted to the SPSS version 23.0 program. The results were presented in absolute frequency (n) and percentage (%) of the qualitative variables and mean and standard deviation of the normally distributed quantitative variables and the median was added to the variables that did not meet this position, and descriptive statistics of the numerical variables. Normality was verified by the Shapiro-Wilk test. Pearson's chi-square test and Fisher's exact test were used to compare categorical variables between groups. To compare numerical variables between two groups, the Mann-Whitney test was used. The level of significance adopted for the statistical tests was 5%, adopting the 95% confidence interval. To

avoid statistical inference, the statistical analysis was performed by a different professional than the one who collected the data.

Results

In all, 400 records were collected in the stipulated period. Of these, 189 were included in GA (outpatient group) and 211 in GI (inpatient group). Table 2 shows the description of the sample according to criteria raised in the medical records, with data on age, sex, diagnosis, type of treatment, specialty of referral to speech therapy, and if it had already undergone speech therapy screening. It was identified that, in both GA and GI, the patients were mostly male, diagnosed with neoplasia of head and neck cancer and that they were undergoing clinical and surgical treatments concurrently.

Table 2. Characterization of the sample

Variables		GA	GI
		n= 189	n= 211
		n (%)	n (%)
Age (age groups)	18-57 years	77 (40,7%)	73 (34,5%)
	58- 66 years	69 (36,5%)	58 (27,4%)
	> 67 years	43 (22,5%)	80 (37,9%)
Sex	Feminine	66 (34,9%)	71 (33,6%)
	Male	123 (65,1%)	140 (66,4%)
Pathology / Neoplasia	Head and neck	147 (77,7%)	100 (47,3%)
	Esophagus and stomach	16 (8,5%)	27 (12,8%)
	Others	26 (13,8%)	84 (39,8%)
Treatment	Clinical	62 (32,8%)	83 (39,3%)
	Surgical	55 (29,1%)	32 (15,1%)
	Clinical + Surgical	72 (38,1%)	96 (45,4%)
Referrals	Nutrition	12 (6,3%)	5 (2,4%)
	Active search	113 (59,8%)	70 (33,2%)
	Head and Neck Surgery	26 (13,8%)	23 (10,9%)
	Oncology	35 (18,5%)	78 (37,0%)
	Others	3 (1,6%)	35 (16,6%)
Screening Variables	Yes	37 (19,6%)	86 (40,8%)
	Not	152 (80,4%)	125 (59,2%)

Caption: GA: outpatient group; IG: intervention group; n = number.

Table 3 presents the results of the respective indicators used for the characterization of speech therapy activities in the oncology hospital. The speech therapy service at this hospital has existed since 2007 and, since 2015, it has been serving UHS patients. The team that performed the consultations in the mentioned period was composed of four speech therapists, three resident speech therapists and one preceptor. It was identified

through the use of indicators that the times for removal of alternative route and reintroduction of oral feeding in GA and GI are similar, noting that the rates of swallowing assessment and number of visits per patient were much higher in the hospitalization group, in which the consultations were daily, when compared to the patients who came for outpatient care, these being performed frequently once a week.

Table 3. Dysphagia indicators applied in the outpatient group and inpatient group

Indicator	GA	GI
Swallowing assessment index	0,025	0,52
Rate of attendance per patient	1,28	2,9
Index of attendance by speech therapist	12,5	305,5
Index of patients attended	0,078	7,11
Evaluation rate per service unit	0,47	0,52
Demand index for swallowing rehabilitation	190	238,6
Time for swallowing assessment (days)	96,2	30,53
Time to remove the alternative feeding route (days)	MD 49,50	MD 45,00
0-5 days	2,30%	8,70%
6-10 days	4,50%	4,30%
11-15 days	9,10%	10,90%
> 15 days	84,10%	76,10%
Time for reintroduction of oral feeding (days)	MD 40,76	MD 40,18
0-5 days	50%	62,80%
6-10 days	2,60%	4,40%
11-15 days	9,00%	7,10%
> 15 days	38,50%	25,70%
Decannulation time	MD 43,41	MD 39,74
0-5 days	70,40%	68,30%
6-10 days	0%	1,60%
11-15 days	3,70%	1,60%
> 15 days	25,90%	28,60%

Caption: MD: median; GA: outpatient group; IG: hospitalization group.

Figure 1 shows the evolution of patients following the levels of the FOIS scale in GA, where 143 (75,7%) patients improved the FOIS scale after therapy, 33 patients (17,5%) maintained the same level and 13 patients (6,9%) presented worsening in FOIS after the therapeutic process.

Figure 2 shows the evolution of patients following the levels of the FOIS scale in the GI, where 103 (48,8%) patients improved after therapy, 81 patients (38,4%) maintained the same level on the scale, and 27 patients (12,8%) worsened after speech therapy.

IT WAS FINAL - AFTER PHONOTHERAPY

		1	3	4	5	6	7	Total
YOU WERE INITIAL - BEFORE PHONOTHERAPY YOU WERE INITIAL -	1	13	17	2	5	5	33	75
	2	0	1	0	0	0	0	1
	3	2	11	0	0	2	4	19
	4	0	0	2	6	3	8	19
	5	1	4	1	4	5	16	31
	6	0	2	1	0	2	36	41
	7	0	0	0	1	1	1	3
Total		16	35	6	16	18	98	189

Legend: Dark gray: number of patients who stayed at the same level while undergoing speech therapy; Black: number of patients who worsened while undergoing speech therapy; light gray: number of patients who improved while undergoing speech therapy.

Figure 1. Evolution of patients following the levels of the functional oral intake scale (FOIS) - GA

IT WAS FINAL - AFTER PHONOTHERAPY

		1	2	3	4	5	6	7	Total
YOU WERE INITIAL - BEFORE PHONOTHERAPY YOU WERE INITIAL -	1	36	0	17	5	10	3	30	101
	3	1	0	21	0	0	0	2	24
	4	2	1	0	7	8	2	7	27
	5	2	0	4	3	11	4	7	31
	6	2	0	3	3	3	2	8	21
	7	0	0	0	1	2	0	4	7
	Total		43	1	45	19	34	11	58

Legend: Dark gray: number of patients who stayed at the same level while undergoing speech therapy; Black: number of patients who worsened while undergoing speech therapy; Light gray: number of patients who improved while undergoing speech therapy.

Figure 2. Evolution of patients following the levels of the functional oral intake scale (FOIS) - GI

Discussion

Patients with cancer of the head and neck and in the aerodigestive tract are a typical and easily identifiable group. Most of them are men, users of tobacco and alcohol, with low education and who are in the 5th and 6th decades of life, and the incidence of cancer in this location increases with age;¹¹ our data show 250 patients, starting in the 5th decade of life, the majority being men, which corroborates with data from the literature.

GA indicated younger patients (40,7% in the age group 18-57 years, 22,5% in the age group above 67 years) when compared to the GI (34.6% in the age group 18-57 years and 37.9 in the age group

older than 67 years). This fact can be explained by the fact that older patients are hospitalized due to clinical worsening of the underlying disease and associated diseases, such as - diabetes and hypertension¹², in addition to the weekly trip to the clinic being less laborious for younger patients. Age can be considered a risk factor for swallowing disorders, due to the very consequences of presbyphagia - swallowing changes resulting from advancing age, clinical complications and or even the possibility of dental problems¹³.

Although head and neck cancer is the most studied and evidenced in the literature regarding speech therapy¹⁴, speech therapy currently exists in other types of tumors, such as cancer of the central

nervous system and aerodigestive tract - including lung, stomach and esophagus^{15,16}. During the treatment of these tumors, the prevalence of dysphagia symptoms is increased^{14,15,16}. These data are in line with our study, in which GA presents 77.7% of patients with head and neck cancer, and 8.5% with esophageal and stomach cancer, with high rates of dysphagia prior to speech therapy, characterizing the presence of swallowing disorders through the FOIS scale.

The proposed treatment for the most varied types of cancer usually involves surgery, radiotherapy, chemotherapy or a combination thereof². These treatments can cause anatomic-physiological changes in the stomatognathic system, changing functions such as swallowing, voice, speech, chewing and even breathing¹⁶. Therefore, regardless of the type of cancer treatment, patients can resort to speech therapy. This corroborates with our study, as in GA 32.8% of patients underwent clinical treatment (radiotherapy / chemotherapy), 29.1% surgical and 38.1% both treatments. In the IG 39.5% patients underwent clinical treatment, 14.8% surgical, 45.7% both treatments.

The result of the active search was the most expressive data in relation to referrals, being responsible for 113 (59.8%) patients in GA and 70 (33.2%) in IG. Speech therapy screening was not performed in all patients who participated in the active search, with some being directly assessed due to the evident and imminent risk of swallowing disorders. For this reason, 277 patients did not undergo speech therapy screening, before having complete evaluation data.

The fact that the active search has raised a greater number of patients for evaluation can be justified by the lack of knowledge of some professionals before the performance of the speech therapy team in the hospital. Swallowing disorders resulting from cancer treatments are promptly identified by a multidisciplinary team and evaluated by the speech therapist, often with the help of indicators, thus allowing a faster and more effective rehabilitation, facilitating the patient's social reintegration¹⁷.

The indicators are units of measures of an activity with which it is related, being a quantitative measure that makes it possible to monitor and evaluate the quality of important care provided to the patient and the activities of support services. They are represented as parameters that determine

the performance of activities, quantification of the processes developed and results of a health unit¹⁸. Measuring indicators is fundamental for the in-depth knowledge of dysphagia in the hospital environment, and for directing therapeutic proposals. The management by standardized indicators favors the analysis of performance over time in the face of the introduction of new procedures and / or technologies, contributing for the effectiveness and efficiency of rehabilitation programs to be evidenced⁸.

The dysphagia indicators aim to seek evidence-based health practice, assessing the relationship between speech therapy interventions and what they result from results for the patient¹⁹. In addition to the results, it is noted that the use of indicators identifies the impact that swallowing disorders have on the economic and financial consequences of health care, patients' quality of life and burden on caregivers⁸.

The swallowing assessment index seeks to monitor the performance of the service in terms of the number of assessments performed, to measure the demand of patients who will undergo treatment for dysphagia in view of the number of patients hospitalized in the same period is presented in an Italian study, with p -value = 0.06 considered low by the authors²⁰. Our result is close to this value in the hospitalization sector (median = 0.52). However, significantly lower in the outpatient sector (median = 0.025). Discrepancies in results are often justified based on methodological differences applied in the collection of the indicator. The use of indicators for comparison with other institutions is a favorable aspect in the search for improving the performance of a dysphagia rehabilitation program⁸.

The results on the rate of attendance per patient provide information on the efficiency of speech therapy procedures over time or by the number of sessions performed, and compare them with results obtained in other studies⁸. In our study, we observed a median = 1.28 in GA and 2.9 in GI. But unfortunately, due to the lack of publications it could not be compared with other studies. At this moment, it is presented as data for the first step of future comparisons.

As for the rate of patients seen, the difference was significant, with a median of 0.078 in GA, and 7.11 in GI, which can be explained due to the number of daily visits to the outpatient clinic versus the number of patients treated in the hospitaliza-

tion format. Even though the outpatient sector has a greater demand for speech therapy, the rate of evaluation per unit of care was similar in both groups (median = 0.47 GA and median = 0.52 GI).

Over the past two decades, researchers and clinicians in the health field have been concerned with the impact of tracheostomy on breathing, communication and swallowing. Tracheostomy is associated with an increased risk of laryngotracheal aspiration, impact on oral communication, and a consequent decrease in quality of life. Decannulation aims to adapt all these items²¹. The time for decannulation, an indicator applied specifically to tracheostomy patients, demonstrates the effectiveness and efficiency of the process, in addition to verifying how early the tracheostomy decannulation process occurs. This time, measured in days in our survey, was similar in both groups with an average of 43.41 in GA and 39.74 in GI.

Time measurements for reintroduction of oral feeding and time for removal of the alternative feeding route (AFR) can be good parameters for measuring the results of the treatment of oropharyngeal dysphagia. According to a study carried out with neurological patients²², it can be seen that the vast majority of patients had withdrawal from the alternative feeding route before 10 days, and that almost all patients (92.3% - 12 individuals) obtained reintroduction of oral feeding also before 10 days. In our research, the time-to-AFR withdrawal indicator had a median of 49.5 days in GA and 45 days in GI. However, in both groups, less than 5% of patients withdrew AFR in less than 10 days. This fact can be attributed to the study population²² presenting with an acute neurological disorder, with great potential for rehabilitation from aspects of cerebral neuroplasticity. In most cases, dysphagia in cancer patients is of mechanical origin^{14,15,16}.

Mechanical oropharyngeal dysphagia is found after surgeries and cancer treatments (chemotherapy and radiotherapy)²³, in cases of head and neck cancer, as swallowing difficulties occur due to the lack of control of the bolus, resulting from the deficit of the structures necessary to complete a normal swallowing, for example, jaw, tongue or teeth³, thus directly impacting the quality of life of individuals^{24,25}.

In addition to indicators, another instrument that has been described in the literature with a view to improving the quality of services provided, are functional scales to assess the effectiveness of re-

habilitation programs. In 2005, FOIS - Functional Oral Intake Scal (functional scale of oral intake)¹⁰ was validated, which gradually graded the amount of oral intake in specific levels in neurological patients. At the moment there is no validated scale to assess the effectiveness of speech therapy in the rehabilitation of the oral route in patients with mechanical dysphagia, that is, with the highest incidence of dysphagia origin in cancer patients.

To measure the degree of oral intake before and after speech therapy, this scale¹⁰ is used and is divided into seven levels, being level 1: nothing orally; level 2: dependent on alternative route with minimal oral route of food or liquid; level 3: dependent on an alternative route with consistent oral route of food or liquid; level 4: total oral route of a single consistency; level 5: total oral route with multiple consistencies, but in need of special preparation or compensation; level 6: total oral route with multiple consistencies, but without the need for special preparation or compensation, but with restrictions for some foods; and level 7: total oral route without restrictions. However, it is known that the nutritional assessment must be associated with the use of FOIS, so that it is possible to efficiently monitor the clinical conditions of the patient, using partial or total oral route, requiring the inclusion of nutritional parameters in the protocol of effectiveness control in the rehabilitation of dysphagia¹⁹.

As described in figures 1 and 2, in GA 13 patients (6.9%) worsened on the FOIS scale, while in GI, 27 patients (12.8%) presented worsening in FOIS after the therapeutic process. This decrease in the measurement of the scale was associated with a clinical worsening of the underlying disease, which, unfortunately, is frequently identified in this population¹⁶. In reference to improvement after speech therapy in GA 143 patients (75%) showed improvement in the FOIS scale - of these 33 (23%) patients at the initial assessment were at level 1: they received nothing orally / only AFR and at the end they were at level 7: they received everything orally / no longer using AFR, while in the IG, 103 patients (48%) showed improvement in the FOIS scale - of these 30 (29%) patients at the initial assessment were at level 1: they did not receive nothing by mouth / only AFR and in the final they were at level 7: they received everything by mouth / no AFR. Such information demonstrates the effectiveness of the speech therapy performed, and is described using the indicators used.

There is a clear need for more research to study the use of indicators in different contexts of care for dysphagic cancer patients, to standardize the indicators in health systems, thus being able to evaluate and monitor them. We know that a study in electronic medical records is limiting, as it depends on the elaboration of complete evolutions of the most diverse health professionals who write there. However, because the hospital under study does not work with these indicators, the review was the possible way to conduct the study.

Conclusion

It was identified through the indicators that, swallowing assessment, care by patient, care by speech therapist and patients attended are greater in the hospitalization environment than outpatient. The time taken to remove the alternative feeding route, for reintroduction of oral feeding and decannulation did not show significant differences between the groups studied.

The establishment of indicators in the work with the dysphagic oncology patient allowed identifying the care processes, bringing direct benefits to the patients, helping in the characterization of the population served, in this way, being able to optimize and improve the processes and results, aiming at the quality of the services provided.

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