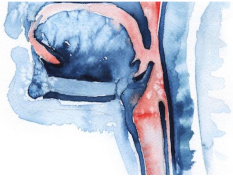




	
	<p>Especialização em Disfagias Orofaríngeas - edição 2023/24</p> 

1

<p>Especialização em Disfagias Orofaríngeas - edição 2023/24</p>  <p><i>Intervenção terapêutica na disfagia mecânica</i></p> <p><i>Mod12</i></p>	
	 <p><i>Lica Arakawa Sugueno</i>  <u>lica.sugueno@gmail.com</u> @licasugueno</p>

2

Estratégias de prevenção e reabilitação para sobreviventes de CaCP devem considerar:

Disfagia	Xerostomia	Disgeusia e Disosmia	Disfonia	Odinofagia
Trismo	Síndrome da primeira mordida	Disartria	Linfedema	Síndrome do ombro
Cervicalgia	Distonia cervical	Síndrome da cabeça caída	Descondicionamento	Fadiga

CaCP: câncer de cabeça e pescoço

3

Aumento de pacientes mais jovens que vivem mais tempo com disfagia

Aumento de estudos que analisam a disfagia após tratamento multimodal em câncer avançado

Current Otorhinolaryngology Reports
<https://doi.org/10.1007/s40136-023-00445-6>

LARYNGOLOGY: UPDATE ON DYSPHAGIA (H STARMER AND A RAMEAU, SECTION EDITORS)

Dysphagia Advances in Head and Neck Cancer

J. M. Patterson¹  M. Lawton¹

Accepted: 27 January 2023
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4

Pacientes com tumor de boca e orofaringe



5

Pacientes com tumor de laringe

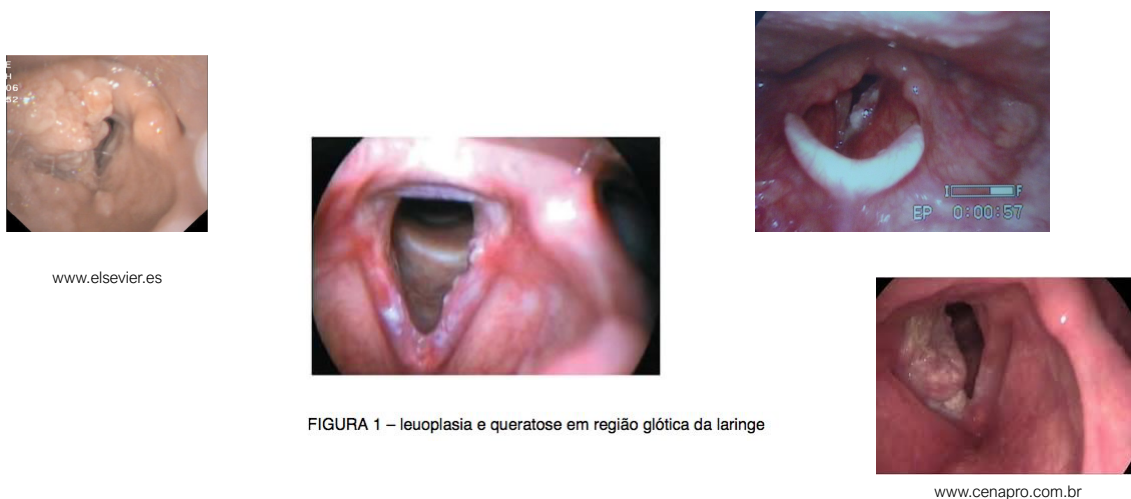


FIGURA 1 – leuoplasia e queratose em região glótica da laringe

6



Figura 1. RMN evidenciando massa heterogênea em mediastino anterior-superior, comprimindo e deslocando a traqueia, com mínima redução do nível cefálico e compressão do lóbulo superior direito do pulmão.



Pacientes com doença de tireoide

7

Pacientes com tumor de glândulas salivares maiores e menores



google.com

8

Pacientes com outros tumores de cabeça e pescoço



Figure 1. Paraganglioma do corpo carotídeo.
Couto H et al. Paraganglioma de corpo carotídeo. Relatos Casos Cir.2017;(2):1-3



Linfoma - Google.com



Carvalho et al. RevPort Estomatolmeddencirmaxilofac. 2014;55(4):250-255.

Hemangioma, Schwannoma, neurofibromatose e outros

9

A disfagia é o sintoma mais comum que afeta a alimentação dos sobreviventes de CaCP

45% em 2 anos de seguimento

Sobreviventes com câncer de orofaringe tratados com altas doses de RDT e pacientes com linfedema crônico

Disfagia crônica mais grave

DISFAGIA EM CaCP

CID10-R13

Hutcheson KA et al. Head Neck. 2019;41:479-87
Pezdirec M et al. Radiol Oncol. 2019;53:225-30
Jeans C et al. Head Neck. 2021;43:255-67

RDT: radioterapia

10

Box 2: Symptoms of dysphagia and aspiration, and examination findings

Obvious symptoms

- Difficulty swallowing
- Heartburn
- Coughing or choking before, during, or after swallowing
- Globus
- Regurgitation of "old" foodstuffs
- Nasal regurgitation
- Feeling of obstruction
- Weight loss

Less obvious symptoms

- Change in eating—for example, eating slowly or avoiding social occasions
- Frequent throat clearing
- Food avoidance
- Prolonged meal times
- Recurrent chest infections
- Change in respiration pattern after swallowing
- Atypical chest pain
- "Wet" voice quality

Key examination findings

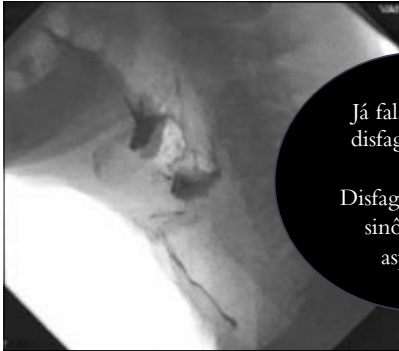
- Angular stomatitis, glossitis (web)
- Oral or oropharyngeal ulceration or swelling (head and neck cancer)
- Neck mass (cervical lymphadenopathy, obstructive goitre)
- Unexplained temperature spikes, wet or hoarse voice (aspiration)
- Tongue fasciculation (motor neurone disease)
- Vocal cord paralysis (cervical or thoracic neoplasia)

Investigation and management of chronic dysphagia

Paula Leslie, Paul N Carding, Janet A Wilson

Timely intervention by a multidisciplinary team can prevent or ameliorate the complications of chronic dysphagia, reducing the burden of this common and diverse condition

2003



Já falávamos da disfagia crônica

Disfagia grave era sinônimo de aspiração

Fig 2 Lateral fluoroscopic projection showing contrast material in the valleculas, pyriform sinuses, laryngeal vestibule, and aspiration into the upper trachea

BMJ VOLUME 326 22 FEBRUARY 2003 bmj.com

11

Cancer. 2012 December 1; 118(23): 5793–5799. doi:10.1002/cncr.27631.

Late Dysphagia after Radiotherapy-Based Treatment of Head and Neck Cancer

Katherine A. Hutcheson, PhD¹, Jan S. Lewin, PhD¹, Denise A. Barringer, MS¹, Asher Lisec, BS¹, Brandon Gunn, MD², Michael W.S. Moore, MD¹, and F. Christopher Holsinger, MD¹

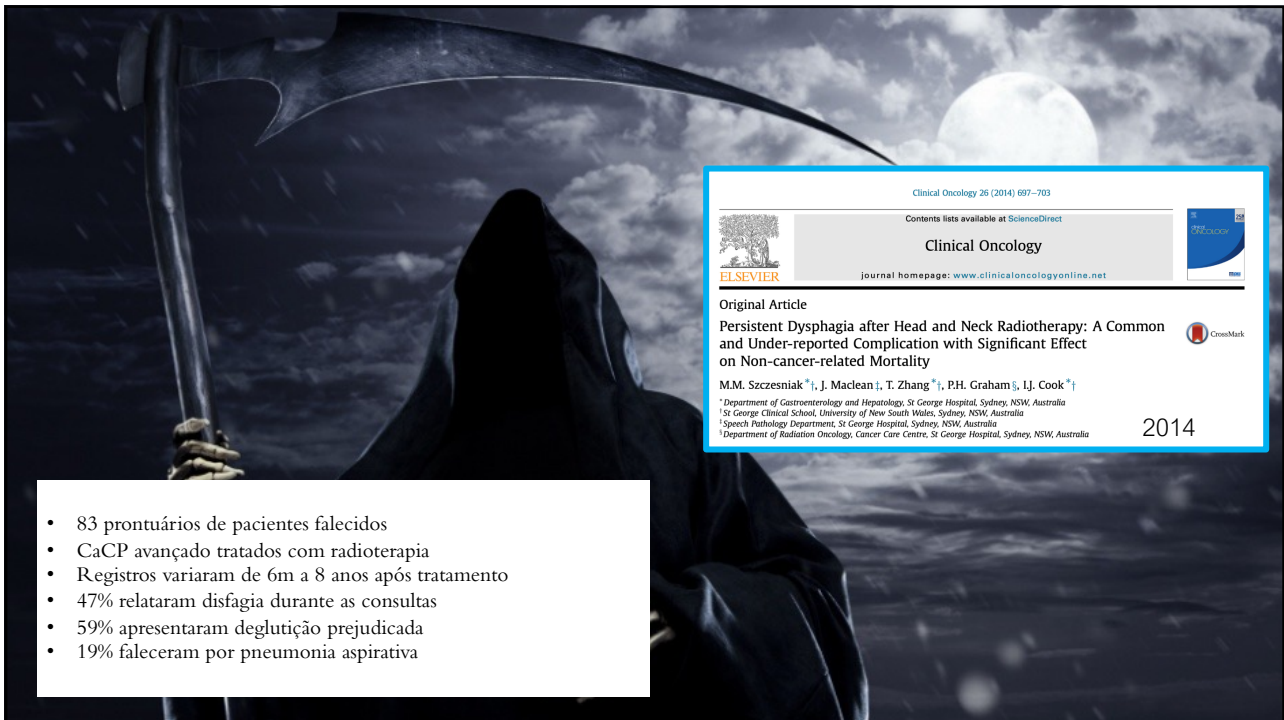
2012

- 24% estenose faringe/esôfago
- 86% pneumonia - metade necessitou de internação
- 66% dependentes de gastrostomia
- 29 Pac entre 38 e 72 anos
- ≥5 anos após radioterapia ou quimiorradioterapia
- 86% tinham ca de orofaringe
- 75% estadiamento T2/T3
- 52% com metástase linfonodal

Escala de Penetração-Aspiração (PAS)
Escala de Status de Desempenho - CaCP(PSS-HN)
Escala de Segurança da Deglutição (NIH-SSS)
Videofluoroscopia

12

6



- 83 prontuários de pacientes falecidos
- CaCP avançado tratados com radioterapia
- Registros variaram de 6m a 8 anos após tratamento
- 47% relataram disfagia durante as consultas
- 59% apresentaram deglutição prejudicada
- 19% faleceram por pneumonia aspirativa

Clinical Oncology 26 (2014) 697–703

Contents lists available at ScienceDirect

Clinical Oncology

journal homepage: www.clinicaloncologyonline.net

Original Article

Persistent Dysphagia after Head and Neck Radiotherapy: A Common and Under-reported Complication with Significant Effect on Non-cancer-related Mortality

M.M. Szczesniak^{a,*}, J. Maclean[†], T. Zhang^{a,*}, P.H. Graham[§], I.J. Cook^{a,†}

^a Department of Gastroenterology and Hepatology, St George Hospital, Sydney, NSW, Australia
[†] St George Clinical School, University of New South Wales, Sydney, NSW, Australia
[§] Speech Pathology Department, St George Hospital, Sydney, NSW, Australia
[‡] Department of Radiation Oncology, Cancer Care Centre, St George Hospital, Sydney, NSW, Australia

2014

13

53% CaCP
Desnutrição
moderada/grave

2021

Desnutrição grave
1ª consulta médica
↓
76% entre disfágicos
32% entre não disfágicos

Cristofaro et al.
Journal of Translational Medicine (2021) 19:472
<https://doi.org/10.1186/s12967-021-03144-2>

Journal of
Translational Medicine

RESEARCH Open Access

The health risks of dysphagia for patients with head and neck cancer: a multicentre prospective observational study

Maria Giulia Cristofaro^{1,*}, Ida Barca¹, Francesco Ferragina¹, Daniela Novembre¹, Yvelise Ferro², Roberta Pujia² and Tiziana Montalcini¹

14

Radiotherapy and Oncology 147 (2020) 103–110

Contents lists available at ScienceDirect

2020 Radiotherapy and Oncology

journal homepage: www.thegreenjournal.com

Original Article

Impact of sarcopenia on survival and late toxicity in head and neck cancer patients treated with radiotherapy

Maria I. van Rijn-Dekker^a, Lisa van den Bosch^a, Johanna G.M. van den Hoek^a, Hendrik P. Bijl^a, Evert S.M. van Aken^a, Anouk van der Hoorn^b, Sjoukje F. Oosting^c, Gyorgy B. Halmos^d, Max J.H. Witjes^e, Hans P. van der Laan^a, Johannes A. Langendijk^a, Roel J.H.M. Steenbakkers^{a,*}

^a Department of Radiation Oncology; ^b Department of Radiology; ^c Department of Medical Oncology; ^d Department of Otorhinolaryngology/Head and Neck Surgery; and ^e Department of Oral and Maxillofacial Surgery, University of Groningen, University Medical Center Groningen, The Netherlands

Received: 28 April 2022 | Revised: 17 June 2022 | Accepted: 24 June 2022
DOI: 10.1002/cam4.5278

RESEARCH ARTICLE **2022** **Cancer Medicine** **WILEY**

The impact of sarcopenia on survival and treatment tolerance in patients with head and neck cancer treated with chemoradiotherapy

Rita Bentahila¹ | Philippe Giraud¹ | Pierre Decazes² | Sarah Kreps¹ | Paula Nay¹ | Augustin Chatain¹ | Emmanuelle Fabiano¹ | Catherine Durdax¹

15

Sarcopenia é doença progressiva frequentemente associada a distúrbios multi-sistêmicos.

Sarcopenia vem sendo considerada um fator prognóstico no tratamento do CaCP.

REDUZ SOBREVIDA

AUMENTA RISCO DE INFECÇÃO PÓS OPERATÓRIA

AUMENTA TEMPO DE INTERNAÇÃO


AUMENTA TOXICIDADE DE QUIMIOTERAPIA

GTT PROFILÁTICO?


CONTROVÉRSIAS

Hutcheson KA et al. JAMA Otolaryngol Head Neck Surg. 2013;139:1127–34.

16



Archives of Physical Medicine and Rehabilitation
journal homepage: www.archives-pmr.org
Archives of Physical Medicine and Rehabilitation 2019; ■■■■■■



REVIEW ARTICLE (META-ANALYSIS)

Identifying Gaps in Research on Rehabilitation for Patients With Head and Neck Cancer: a Scoping Review

Sara C. Parke, MD,^a Sonal Oza, MD,^b Sam Shahpar, MD,^c An Ngo-Huang, DO,^a Aliea Herbert, MD,^a Touré Barksdale, MD,^a Lynn Gerber, MD^d

From the ^aDepartment of Palliative, Rehabilitation and Integrative Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX; ^bDepartment of Neurology, Memorial Sloan Kettering Cancer Center, New York, NY; ^cDepartment of Physical Medicine and Rehabilitation, Shirley Ryan AbilityLab, Northwestern University, Chicago, IL; and ^dDepartment of Health Administration and Policy, George Mason University, Fairfax, VA. Current affiliation for Herbert, Swedish Medical Center, Seattle, WA; Barksdale, Mayo Clinic, Rochester, MN.

Current Oncology Reports (2022) 24:517–532
<https://doi.org/10.1007/s11912-022-01227-x>

2022

CANCER REHABILITATION (S SHAHPAR, SECTION EDITOR)

State of Rehabilitation Research in the Head and Neck Cancer Population: Functional Impact vs. Impairment-Focused Outcomes

Sara C. Parke¹ · David Michael Langelier² · Jessica Tse Cheng³ · Cristina Kline-Quiroz⁴ · Michael Dean Stubblefield⁵

Pesquisas ainda concentradas nas intervenções para a deficiência

É preciso nos concentrarmos em pesquisas de

Prevenção da perda funcional

Impacto da intervenção da equipe de reabilitação em

Atividades diárias

Participação profissional/social

Sofrimento psicossocial

18

9

Quais são os parâmetros multidimensionais relacionados à função da deglutição?

Quais são os métodos de avaliação da disfagia?


É possível prevenir, reduzir ou remediar os efeitos colaterais do tratamento oncológico?

Quais são as abordagens atuais para terapia fonoaudiológica na disfagia?

Current Otorhinolaryngology Reports
https://doi.org/10.1007/s40136-023-00445-6

LARYNGOLOGY: UPDATE ON DYSPHAGIA (H STARMER AND A RAMEAU, SECTION EDITORS)

Dysphagia Advances in Head and Neck Cancer

J. M. Patterson¹  · M. Lawton¹


Accepted: 27 January 2023
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2023


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PROs – Patient Related Outcomes


Quais são os parâmetros multidimensionais relacionados à função da deglutição nessa população?

MD Anderson Dysphagia Inventory (MDADI)
Chen et al., 2001  Bastos et al., 2014

Swallowing Quality-of-Life Questionnaire (SWAL-QOL)
McHorney et al., 2002  Vieira et al., 2010

Eating assessment tool (EAT-10)
Belafsky et al., 2008  Queirós et al., 2013

Swallowing Outcomes After Laryngectomy (SOAL)
Govender et al., 2012

Sydney Swallow Questionnaire (SSQ)
Swivedi et al., 2010  Valcaide et al., 2018

20

Rastreamento, testes e Avaliação clínica

Quais são os métodos de avaliação da disfagia nessa população?

Normalcy of Diet – subseção do *Performance Status Scale*
List et al., 1990

Functional Oral Intake Scale (FOIS) – apesar de ter sido desenvolvido para AVC, tem validade para CaCP
Crary, Mann & Groher, 2005

Water swallow test (WST)
DePippo, Hols & Reding, 1992

Cancer-specific swallowing assessment tool MASA-C
Crary & Mann, 2014

21

Classificação de testes instrumentais Videofluoroscopia e Videoendoscopia da deglutição

Quais são os métodos de avaliação da disfagia nessa população?

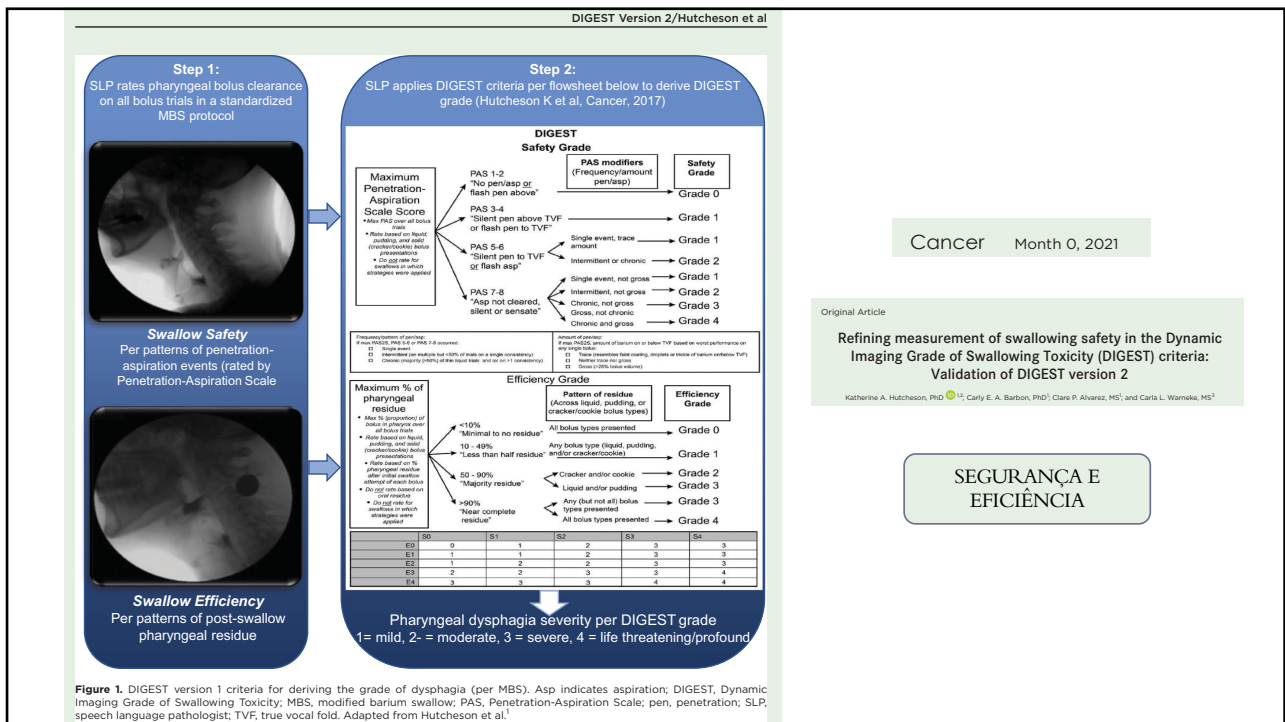
Penetration Aspiration Scale (PAS)
Rosenbek et al., 1996

DIGEST-VF (Dynamic Imaging Grade of Swallowing Toxicity)
Hutcheson et al., 2017; Hutcheson et al., 2021

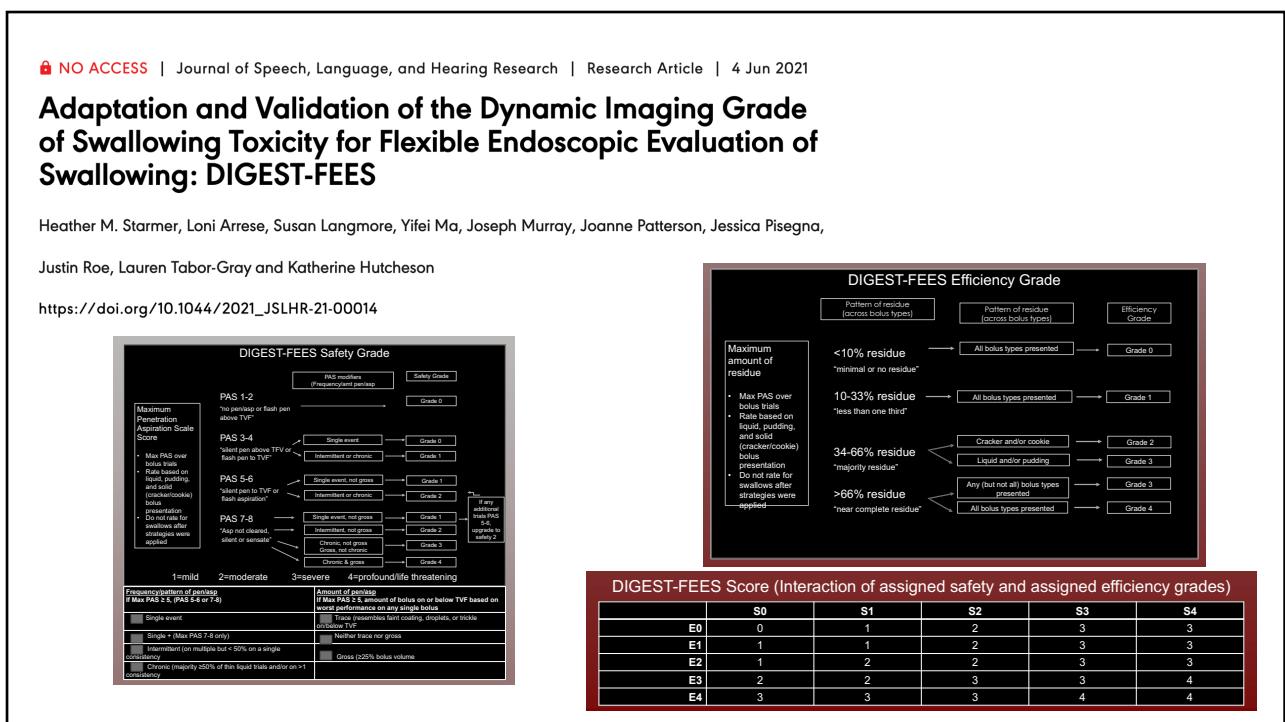
DIGEST-FEES
Starmer et al., 2021

VF: videofluoroscopia
FEES: Flexible endoscopy evaluation of swallowing

22



23



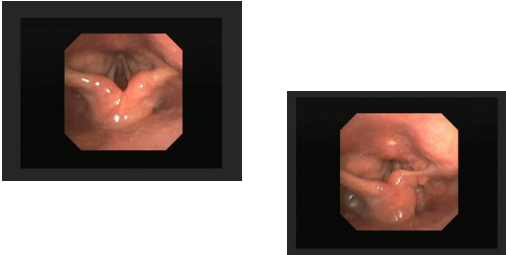
24

Dysphagia (2015) 30:496–505
DOI 10.1007/s00455-015-9628-z

ORIGINAL ARTICLE

**Videoscopic Evaluation of Swallowing After Thyroidectomy:
7 and 60 Days**

Lica Arakawa-Sugueno¹ · Alberto Rosseti Ferraz¹ · Janaína Morandi¹ ·
Dirce Maria Capobianco¹ · Claudio Roberto Cernea¹ · Maury Antônio Sampaio¹ ·
Marco Aurélio Vamondes Kulcsar¹ · César Augusto Simões¹ · Lenine Garcia Brandão¹



VED: videoendoscopia da deglutição = FEES
POR: pós operatório recente
POT: pós operatório tardio

- VED /FEES
 - Pré-op
 - 7d POR
 - 60d POT
- Maioria mulheres com carcinoma papilífero
- 46–65a
- Grupo imobilidade (30)
 - POR
 - 33% com penetração e aspiração
 - 87% com resíduos
 - POT
 - 60% com resíduos
- Grupo mobilidade preservada (24)
 - POR
 - 44% com resíduos
 - POT
 - 25% com resíduos

25



DOENÇA DE BASE

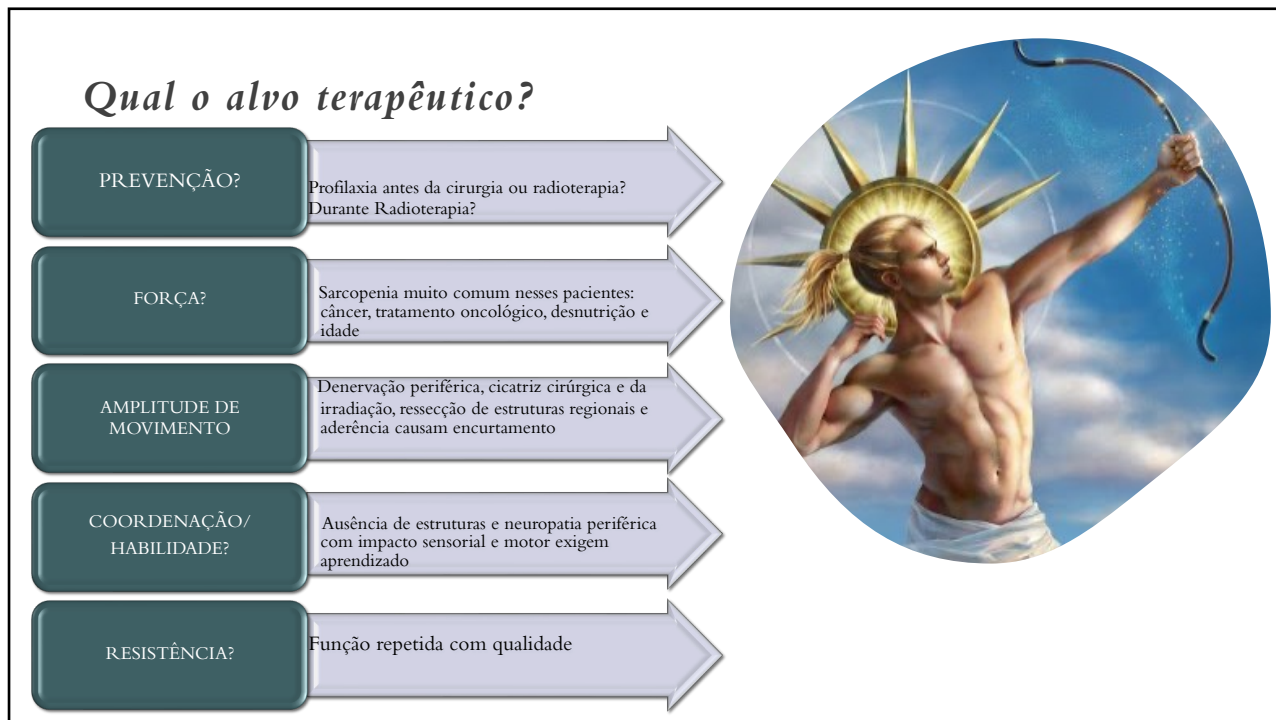
VALORES DO PACIENTE

QUALIDADE DEVIDA

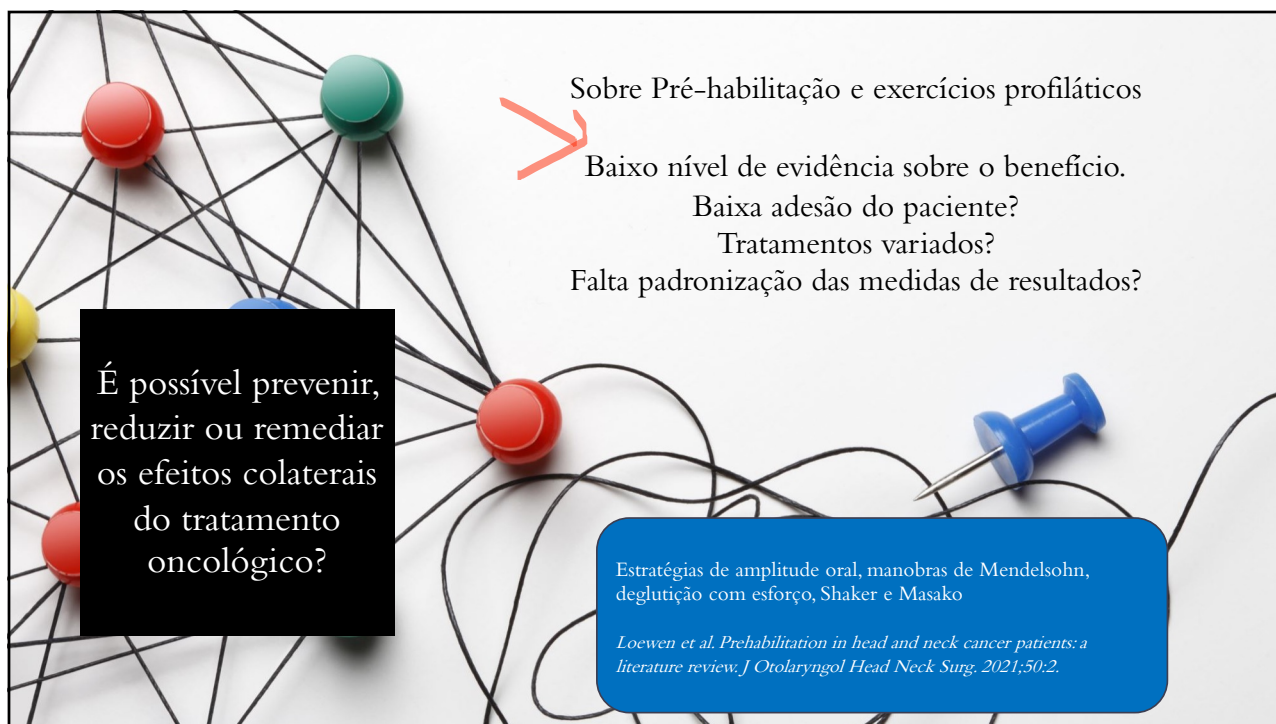
CONTEXTO CENÁRIO

Pilares da tomada de decisão em disfagia

26



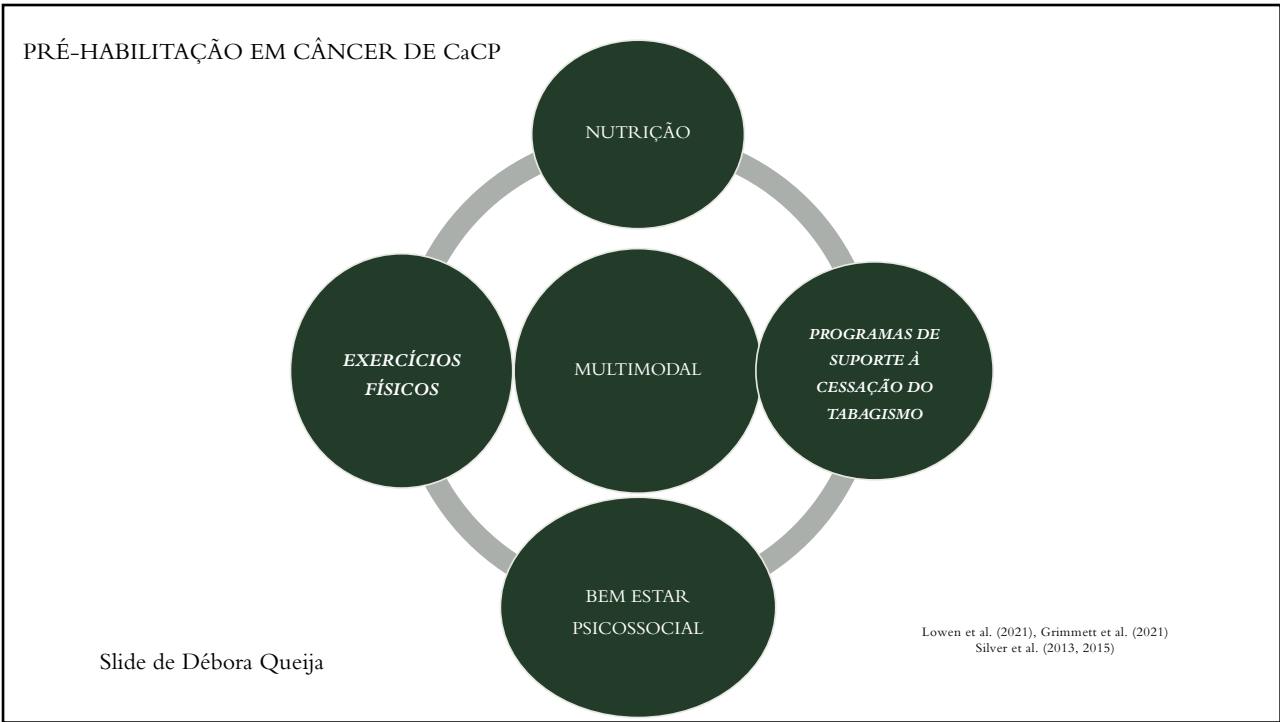
27



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The Laryngoscope
Lippincott Williams & Wilkins
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Rhinological and Otological Society, Inc.

Pretreatment Swallowing Exercises Improve Swallow Function After Chemoradiation

William R. Carroll, MD; Julie L. Locher, PhD; Cheri L. Canon, MD; Isaac A. Bohannon, MD;
Nancy L. McColloch, CCC-SLP; J. Scott Magnuson, MD

18 casos controle
Retrospectivo

Estratégia	Repetições	Frequência	Intensidade	Duração	Desfecho	População
Resistência de língua em 4 posições	1x	5x dia 7 dias/ semana	5s	2 semanas antes da RDTQT	VDF: Movimento de base de língua, fechamento do vestibulo laringeo, abertura do cricofaríngeo e posicionamento do osso hióide	CCP
Masako	10x		Apertar com força			
Deglutição com esforço	10x					
Mendelsohn	10x		Segurar 5s			
Shaker	Conforme método		Conforme método		Tempo de uso de GTT	

31

PRO-ACTIVE trial protocol (Martino et al. 2021, piloto) quer determinar a eficácia da terapia durante RDT e o efeito da manutenção da VO na função da deglutição.

Manutenção da VO está bem estabelecida na prática clínica e representa um forte determinante para a função de deglutição a longo prazo.

VO: via oral

JAMA Otolaryngol Head Neck Surg. 2013 November ; 139(11): 1127–1134. doi:10.1001/jamaoto.2013.4715.

USE IT OR LOSE IT: EAT AND EXERCISE DURING RADIOTHERAPY OR CHEMORADIOTHERAPY FOR PHARYNGEAL CANCERS

Katherine A. Hutcheson, PhD, Mihir K. Bhayani, MD, Beth M. Beadle, MD, PhD, Kathryn A. Gold, MD, Eileen H. Shinn, PhD, Stephen Y. Lai, MD, PhD*, and Jan Lewin, PhD*



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Early Postoperative Oral Exercise Improves Swallowing Function Among Patients With Oral Cavity Cancer: A Randomized Controlled Trial

Ear, Nose & Throat Journal
2019, Vol. 98(6) E73–E80
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DOI: 10.1177/0145561319839822
journals.sagepub.com/home/ear

2019



Ching-Chi Hsiang, MSc, RN¹, Andy Wei-Ge Chen, MD¹,
Chih-Hua Chen, MSc, SLP¹, and Mu-Kuan Chen, MD, PhD¹

50 pacientes divididos em GE e GC (randomização)

18–75 anos CEC boca ou orofaringe tratados cirurgicamente (sem tratamento prévio)

◦ Ressecção do tumor, esvaziamento cervical e reconstrução

Terapia da deglutição com exercícios e treino funcional iniciada no máximo até 21 dias de PO

Avaliação de resultados de VF comparando 30 dias de PO X 3–4 meses de PO

◦ Resíduo

◦ Escala de Penetração e Aspiração de Rosenbek

GE: grupo de estudo

GC: grupo controle

CEC: carcinoma espino celular ou epidermoide

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Early Postoperative Oral Exercise Improves Swallowing Function Among Patients With Oral Cavity Cancer: A Randomized Controlled Trial

Ching-Chi Hsiang, MSc, RN¹, Andy Wei-Ge Chen, MD¹,
Chih-Hua Chen, MSc, SLP¹, and Mu-Kuan Chen, MD, PhD¹

2019

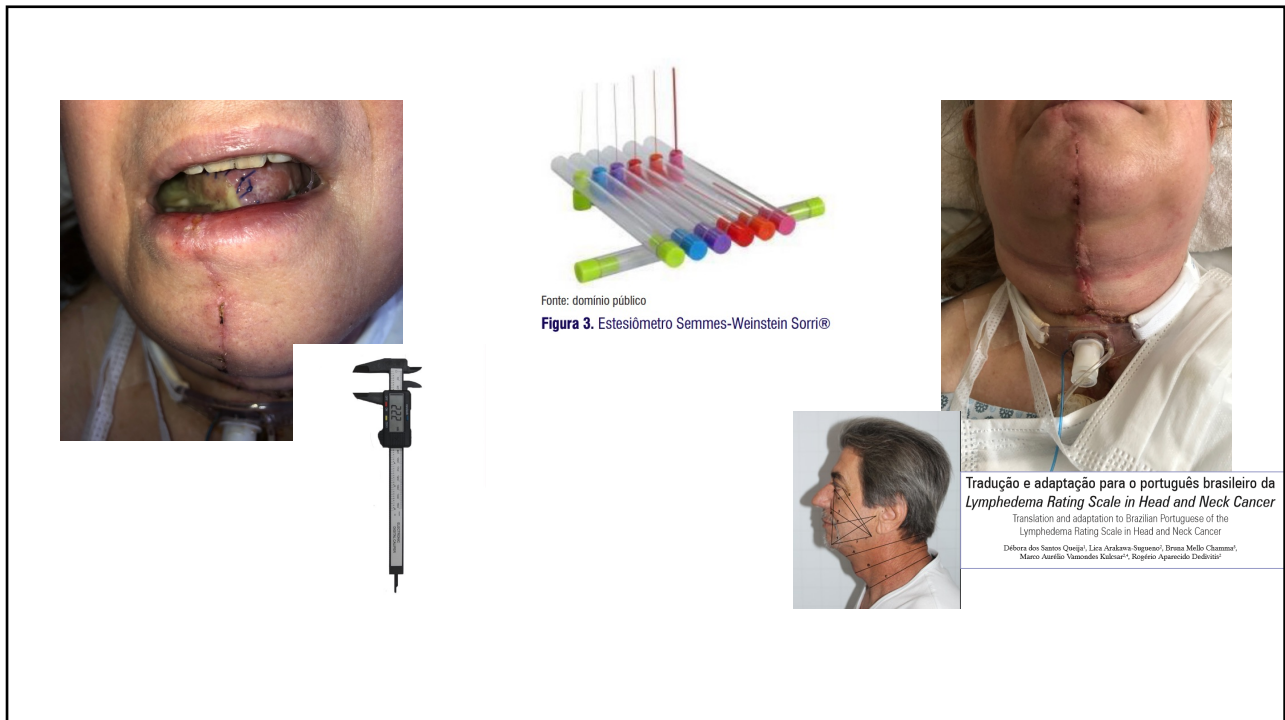
Ear, Nose & Throat Journal
2019, Vol. 98(6) E73–E80
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DOI: 10.1177/0145561319839822
journals.sagepub.com/home/ear

Table 2. Baseline Characteristics by Study Group.

Characteristic	Total, n (%)	Exercise Group, n (%)	Control Group, n (%)	P Value
No. of patients	50	25 (50%)	25 (50%)	
Age (years)				
Mean (SD)	56.2 (8.8)	55.6 (8.6)	56.7 (9.0)	.672
Range	40 to 76	43 to 70	40 to 76	
Gender				.471
Male	48 (96%)	24 (96%)	24 (96%)	
Female	2 (4%)	1 (4%)	1 (4%)	
Staging				.468
Stage I	10 (20%)	4 (16%)	6 (24%)	
Stage II	9 (18%)	5 (20%)	4 (16%)	
Stage III	10 (20%)	7 (28%)	3 (12%)	
Stage IV	21 (42%)	9 (36%)	12 (48%)	
Tracheostomy				.741
Yes	38 (76%)	18 (72%)	20 (80%)	
No	12 (24%)	7 (28%)	5 (20%)	
Chemotherapy				.551
Yes	33 (66%)	18 (72%)	15 (60%)	
No	17 (34%)	7 (28%)	10 (40%)	
Radiotherapy				.217
Yes	35 (70%)	20 (80%)	15 (60%)	
No	15 (30%)	5 (20%)	10 (40%)	
Tumor				.436
Buccal	14 (28%)	9 (36%)	5 (20%)	
Tongue	17 (34%)	10 (40%)	7 (28%)	
Lip	1 (2%)	0	1 (4%)	
Upper gum	3 (6%)	1 (4%)	2 (8%)	
Lower gum	3 (6%)	2 (8%)	1 (4%)	
Retromolar	2 (4%)	0	2 (8%)	
Hard palate	2 (4%)	1 (4%)	1 (4%)	
Mouth floor	2 (4%)	2 (8%)	0	
Tonsil	4 (8%)	0	4 (16%)	
Reconstruction				.092
PMMC flap	18 (36%)	13 (52%)	5 (20%)	
ALT flap	20 (40%)	7 (28%)	13 (52%)	
Forearm flap	11 (22%)	5 (20%)	6 (24%)	
Local flap	1 (2%)	0	1 (4%)	

Abbreviations: ALT, anterolateral thigh perforator flap; PMMC, pectoralis major myocutaneous flap.

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2021

Review Article | Published: 02 January 2021

Evaluating the safety of oral methylene blue during swallowing assessment: a systematic review

Bina Tariq , Sorina R. Simon, Walmaril Pilz, Andra Maxim, Bernd Kremer & Laura W. J. Balleens

European Archives of Otorhinolaryngology (2021) | [Cite this article](#)

2264 artigos - 17

12 eram ensaios clínicos randomizados

1902 pacientes, 3 eventos adversos graves relacionados a azul de metileno

Quanto tempo o paciente necessitará de uso de TQ?

TQ: traqueostomia



Managing Dysphagia in The Tracheostomized Head and Neck Cancer Patient

Carmin Bartow MS/CCC-SLP BRS-S
Vanderbilt University Medical Center
Linda Stachowiak MS/CCC-SLP BRS-S
MD Anderson Cancer Center Orlando

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Benefício no uso da
válvula fonatória?

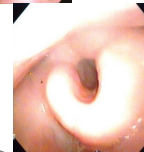


Managing Dysphagia in The Tracheostomized Head and Neck Cancer Patient

Carmin Bartow MS/CCC-SLP BRS-S
Vanderbilt University Medical Center
Linda Stachowiak MS/CCC-SLP BRS-S
MD Anderson Cancer Center Orlando



Contraindicações



Onde está a
lesão?
Qual a cirurgia
indicada?

Edema ou
estenose permite
tolerância?

Avaliar
Volume de secreção
Edema
estenose

37

Quais são as propostas atuais para terapia de deglutição?

Técnicas de mudança comportamental operacionalizada por meio da educação, programa de exercícios de deglutição adaptado individualmente, estabelecimento de metas, automonitoramento e prática comportamental

Uso de aplicativos móveis

Treinamento virtual

Como promover
ADESÃO
terapêutica



38

Exercícios de deglutição em CaCP



Intervenção nessa população envolve exercícios, mas não tratamos disfagia mecânica somente com exercícios

19 estudos clínicos randomizados

1.100 participantes

Exercícios de deglutição demonstraram benefício na função de deglutição e abertura da boca em pacientes com CCP submetidos a tratamento multimodal.

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Exercícios de deglutição em CaCP



Intervenção nessa população envolve exercícios, mas não tratamos disfagia mecânica somente com exercícios

Estatisticamente

- efeito pequeno na função de deglutição
- efeito moderado na abertura da imediatamente após a intervenção
- efeito pequeno na abertura de boca em 6 meses de acompanhamento
- efeitos não significativos no risco de aspiração, performance status funcional e todos os domínios da qualidade de vida



40

Dysphagia (2022) 37:749–762
https://doi.org/10.1007/s00455-021-10320-5

ORIGINAL ARTICLE

Swallowing Exercise During Head and Neck Cancer Treatment: Results of a Randomized Trial

Sara Fredslund Højdis^{1,2} · Irene Wessel³ · Susanne Øksbjerg Dalton^{4,5} · Signe Janum Eskildsen¹ · Christoffer Johansen^{2,5}

	End-of-treatment	2 monts	6 monts	1 year
Swallowing outcomes				
PAS score by FEES	-	+	-	+
FOIS score	+	+	+	+
Tube dependence		Duration		
Mouth opening	+	+	+	+
Pain, NRS	+	+	+	+
Gargle	+	+	+	+
Whistle	+	+	+	+
Physical functioning				
30 second sit to stand	+	+	+	+
Performance status	+	+	+	+
Weight	+	+	+	+
Quality of Life				
EORTC QLQ C-30	+	+	+	+
EORTC QLQ-H&N35	+	+	+	+
MDADI	+	+	+	+
Mood				
Major Depression Index	+	+	+	+
SCL-92 Anxiety subscale	+	+	+	+

PAS, Penetration Aspiration Scale; FEES, Fiberoptic Endoscopic Evaluation of Swallowing; NRS, Numerical Rating Scale; EORTC, European Organisation For Research and Treatment of Cancer; QLQ, Quality of Life Questionnaire; MDADI, MD Anderson Dysphagia Inventory; SCL, Symptom Check List

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Perspectives of the ASHA Special Interest Groups
SIG 13, Vol. 3(Part 1), 2018, Copyright © 2018 American Speech-Language-Hearing Association

The Ice Chip Protocol: A Description of the Protocol and Case Reports

Jessica M. Pisegna

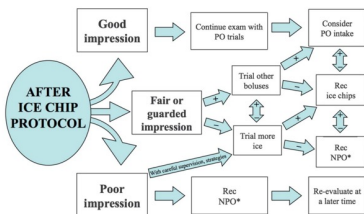
Department of Otolaryngology, Boston Medical Center
Boston, MA

Speech-Language Pathology Sciences, Boston University School of Medicine
Boston, MA

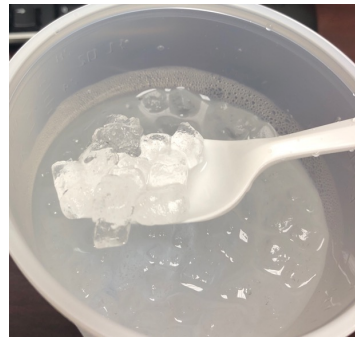
Susan E. Langmore

Department of Otolaryngology-Head & Neck Surgery, Boston University Medical Center
Boston, MA

Figure 2. Decision making after the first three trials of ice chips.

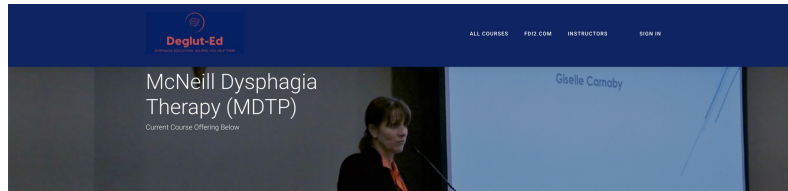


Note. *Unless the patient is a candidate for a free water protocol, comfort measures only, or other extenuating circumstances. NPO = nil per os; PO = per os; Rec = recommend.



- Candidatos ideais: suspeita de disfagia grave ou com capacidade de deglutição desconhecida
- Cubos de gelo de 5x7mm
- Possibilidade de visualizar por VED usando corante
 - “Pegue 2 pedaços de gelo, mova-os pela boca e engula tudo de uma vez quando estiver pronto”

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What is MDTP?

MDTP is a systematic exercise-based approach to dysphagia therapy in adults. Rather than a specific technique, MDTP is a framework from which to provide individualized therapy to adult patients. This one day intermediate course introduces participants to the conceptual basis of MDTP, provides the results of initial clinical studies documenting functional and physiologic benefits from MDTP intervention, describes in detail the components of MDTP, and provides step by step instruction for the evaluation and treatment of patients receiving the MDTP approach.



Achados preliminares sugerem que certos pacientes são mais responsivos a regimes de exercícios intensivos, mas as taxas de adesão são baixas.

43




Expiratory Muscle Strength Training for Radiation-Associated Aspiration after Head and Neck Cancer: A Case-Series

Katherine A. Hutcheson, PhD¹, Martha P. Barrow, MPH¹, Emily K. Plowman, PhD², Stephen Y. Lai, MD, PhD^{1,3}, Clifton David Fuller, MD, PhD⁴, Denise A. Barringer, MS¹, George Eapen, MD⁵, Yiqun Wang, MA¹, Rachel Hubbard, BS¹, Sarah K. Jimenez, MS¹, Leila G. Little, MS¹, and Jan S. Lewin, PhD¹

5 estudos clínicos randomizados com EMST em CaCP em andamento.



44



Direcionamentos Futuros

Estudos que indicam benefícios potenciais do treinamento da coordenação respiração-deglutição usando biofeedback em pacientes com CaCP com impacto no fechamento do vestíbulo laríngeo, retração da base da língua e limpeza do resíduo.

Martin-Harris B et al. Arch Phys Med Rehabil. 2015;96(5):885–93.

47

Dysphagia (2014) 29:396–402
DOI 10.1007/s00455-014-9521-1

ORIGINAL ARTICLE

Effect of Gabapentin on Swallowing During and After Chemoradiation for Oropharyngeal Squamous Cell Cancer

Heather M. Starmer · WuYang Yang · Raju Raval · Christine G. Gourin ·
Marian Richardson · Rachit Kumar · Bronwyn Jones · Todd McNutt ·
Sierra Cheng · Harry Quon



O uso profilático de gabapentina para o tratamento da dor durante a quimiorradiação parece contribuir para a manutenção de

ingestão oral e minimiza o uso de tubos PEG.
Isso está associado a uma melhor proteção das vias aéreas pós-tratamento e função fisiológica da deglutição.

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Clinical Investigation: Head and Neck Cancer

“Pharyngocise”: Randomized Controlled Trial of Preventative Exercises to Maintain Muscle Structure and Swallowing Function During Head-and-Neck Chemoradiotherapy

Giselle Carnaby-Mann, M.P.H., Ph.D.,* Michael A. Crary, Ph.D.,[†]
Ilona Schmalzfuss, M.D.,[‡] and Robert Amdur, M.D.[§]



Place mouthpieces comfortably between teeth.



Squeeze the lever to the point of resistance and hold.



Slowly close the mouth and pause.

- Durante todo o período da RDTQT ou até 6 semanas
- Sessão de 45 min: 10x 4 séries de 10min
 - Falsetto
 - Pressão de língua
 - Deglutição com esforço
 - Therabite

2 x dia

Int J Radiation Oncol Biol Phys, Vol. 83, No. 1, pp. 210–219, 2012
0360-3016/\$ - see front matter © 2012 Elsevier Inc. All rights reserved.
doi:10.1016/j.ijrobp.2011.06.1954

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Clinical Investigation: Head and Neck Cancer

“Pharyngocise”: Randomized Controlled Trial of Preventative Exercises to Maintain Muscle Structure and Swallowing Function During Head-and-Neck Chemoradiotherapy

Giselle Carnaby-Mann, M.P.H., Ph.D.,* Michael A. Crary, Ph.D.,[†]
Ilona Schmalzfuss, M.D.,[‡] and Robert Amdur, M.D.[§]

Composição muscular e função

- O tamanho do músculo e o tempo de relaxamento foram significativamente diferentes entre os grupos de estudo na análise da RM.
- Três músculos foram beneficiados no GE (programa “pharyngocize”): genioglossos, milo-hioideo e hioglossos.

Capacidade funcional de engolir

- A capacidade funcional de deglutição deteriorou-se menos no GE em relação ao controle pela escala MASA
- Houve diferença para maior abertura de boca no GE
- Não houve diferença significativa nos resultados de VED, FOIS e nutrição

Int J Radiation Oncol Biol Phys, Vol. 83, No. 1, pp. 210–219, 2012
0360-3016/\$ - see front matter © 2012 Elsevier Inc. All rights reserved.
doi:10.1016/j.ijrobp.2011.06.1954

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Figure 2 Manual Therapy for Fibrosis-Related Late Effect Dysphagia trial schema. CROM, cervical range of motion; HNC, head and neck cancer; MBS, modified barium swallow; MT, manual therapy; PROs, patient-reported outcomes; RAD, radiation-associated dysphagia; RT, radiotherapy.

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Evolution of Impairment Burden in Head and Neck Cancer

Diagnosis

Surgery

Chemoradiation

Surveillance and Survivorship

Months

Baseline Comorbidities

- Dysphagia
- Xerostomia
- Dysgeusia, Dysomia
- Odynophagia
- Trismus
- First Bite Syndrome
- Dysarthria, Dysphonia, Aphonia
- Lymphedema
- Shoulder Syndrome
- Spinal Accessory Neuropathy (SAN)
- Scapular Dyskinesia
- Rotator Cuff Impingement
- Myofascial Pain
- Adhesive Capsulitis
- Cervical Dystonia, Cervicalgia
- Deconditioning
- Fatigue
- Psychosocial Distress

Radiation Late Effects:

- Myelo-radiculo-plexo-neuro-mypopathy
- ↑↑↑ Dysphagia
- ↑↑ Trismus
- ↑↑ Dysarthria
- ↑↑↑ Lymphedema
- ↑↑ Shoulder Syndrome
- Drooped Head Syndrome
- ↑ Cervical Dystonia / Cervicalgia

Other Late Effects:

- Fatigue
- ↑↑↑ Psychosocial Distress

Impairment Burden

Low High

Current Oncology Reports (2022) 24:517–532
https://doi.org/10.1007/s11912-022-01227-x

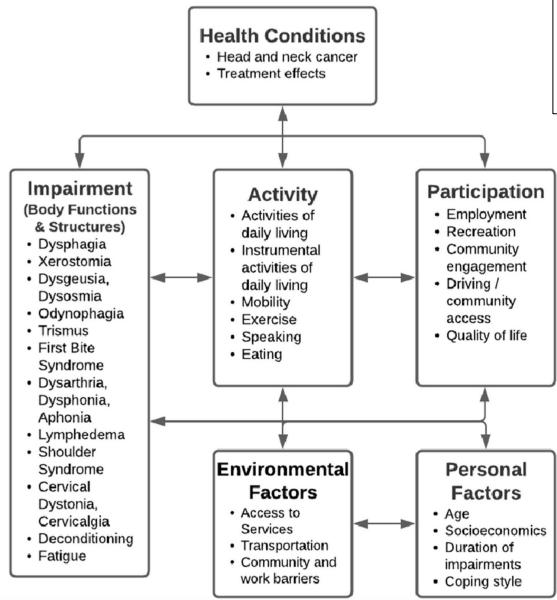
CANCER REHABILITATION (S SHAHPAR, SECTION EDITOR)

State of Rehabilitation Research in the Head and Neck Cancer Population: Functional Impact vs. Impairment-Focused Outcomes

Sara C. Parke¹ • David Michael Langelier² • Jessica Tse Cheng³ • Cristina Kline-Quiroz⁴ • Michael Dean Stubblefield⁵

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Fig. 1 Adaptation of the *International Classification of Functioning* framework for head and neck cancer survivors. The configuration has been altered from standard formatting to highlight the plethora of functional impairments in this population



Current Oncology Reports (2022) 24:517–532
<https://doi.org/10.1007/s11912-022-01227-x>

CANCER REHABILITATION (S SHAHPAR, SECTION EDITOR)

State of Rehabilitation Research in the Head and Neck Cancer Population: Functional Impact vs. Impairment-Focused Outcomes

Sara C. Parke¹ · David Michael Langellier² · Jessica Tse Cheng³ · Cristina Kline-Quiroz⁴ · Michael Dean Stubblefield⁵

Dysphagia
<https://doi.org/10.1007/s00455-019-10053-6>

ORIGINAL ARTICLE



Cervicofacial and Pharyngolaryngeal Lymphedema and Deglutition After Head and Neck Cancer Treatment

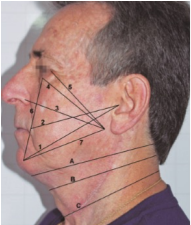
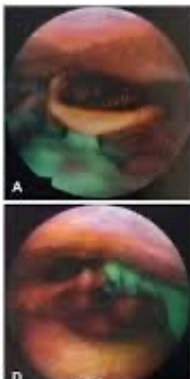
Débora dos Santos Queija¹ · Rogério Aparecido Dedivitis² · Lica Arakawa-Sugueno¹ · Mario Augusto Ferrari de Castro³ · Bruna Mello Chamma⁴ · Marco Aurélio Vamondes Kulcsar^{2,5} · Leandro Luongo de Matos²

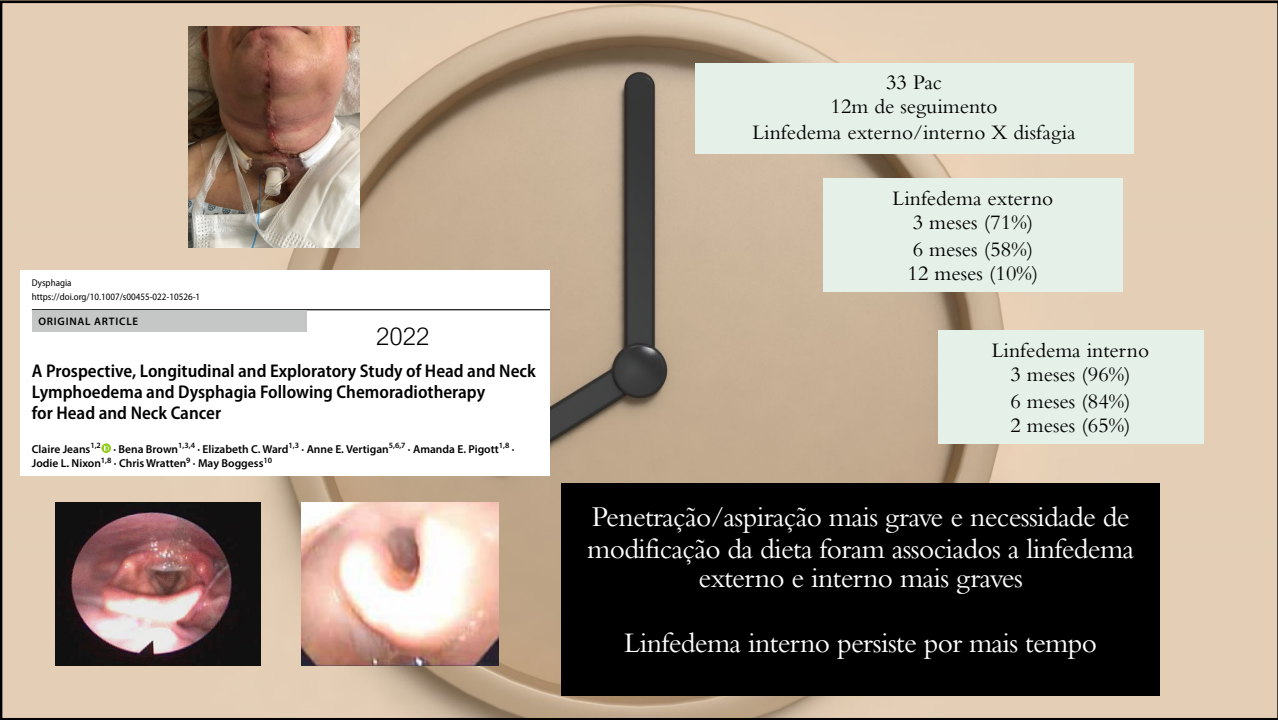
Received: 10 March 2019 / Accepted: 21 August 2019
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Abstract

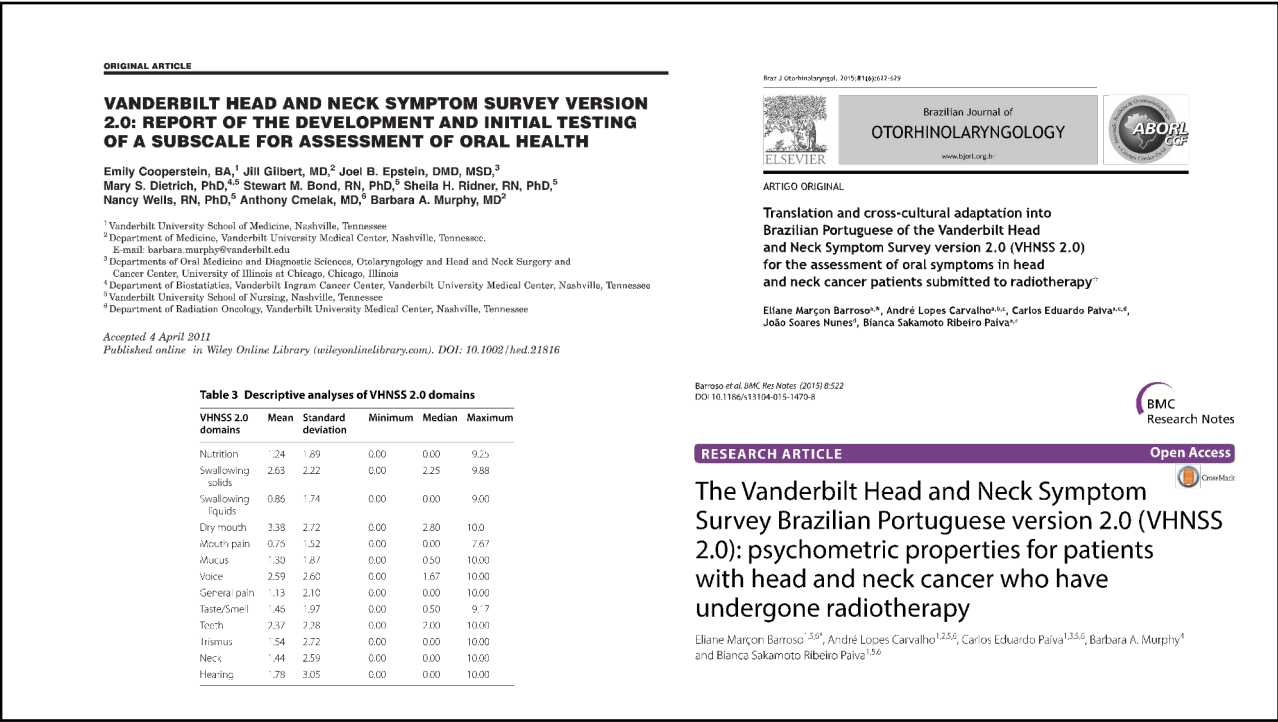
One of the sequelae of head and neck cancer treatment is secondary lymphedema, with important impact on breathing, swallowing and vocal functions. The aim of the study was to assess the presence, staging characteristics and relationship of external and internal lymphedema and dysphagia after head and neck cancer treatment. The MDACC Lymphedema Rating Scale in Head and Neck Cancer was employed for the assessment and staging of face and neck lymphedema; the Radiotherapy Edema Scale for internal lymphedema; and a fiberoptic endoscopic evaluation of swallowing (FEES) for swallowing. The sample consisted of 46 patients with a diagnosis of head and neck cancer. Lymphedema was detected in 97.8% (45) of the evaluations with predominance of the composite type (73.9%—34). A high percentage of external lymphedema of the neck (71.7%—33) and submandibular (63%—29) were detected, with predominance of the more advanced levels. Internal edema was found in almost all structures and spaces at moderate/severe level. At FEES, residue (higher percentage in valleculae and pyriform sinus), penetration and aspirations were observed. The residue was detected in higher occurrence in patients with composite lymphedema ($p=0.012$). The combined treatment with radiotherapy was related to submandibular external lymphedema ($p=0.009$), altered pharyngolaryngeal sensitivity (0.040), presence of residue ($p=0.001$) and penetration to pasty ($p=0.007$) and internal edema in almost all structures. There was also a higher percentage of residue in cases with internal altered pharyngolaryngeal sensitivity, residue, penetration and aspiration. Combined treatment with radiotherapy is an associated factor of edema. Cervicofacial and pharyngolaryngeal lymphedema is a frequent event after treatment for HNC, with important impact on swallowing performance characterised by altered pharyngolaryngeal sensitivity, residue, penetration and aspiration. Combined treatment with radiotherapy is an associated factor.

Keywords Lymphedema · Head and neck neoplasms · Neck dissection · Radiotherapy · Deglutition disorders · Deglutition



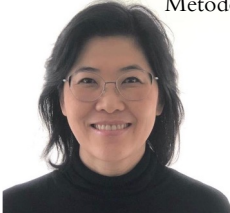


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Certificadas em DLM pelo
Método Leduc



Dra. Lica Arakawa-Sugueno



Dra. Débora Queija



Me. Bruna Fulachi

PROPOSTA DE UM PROGRAMA DE INTERVENÇÃO PARA O LINFEDEMA FACIAL E CERVICAL SECUNDÁRIO AO TRATAMENTO DE CÂNCER DE CABEÇA E PESCOÇO

Fgo. Me. Bruna Fulachi
Orientação: Dra. Lica Arakawa-sugueno e Dra. Debora dos Santos Queija

Mestrado Profissional- FCMSCSP
Agosto/2022

Dysphagia
<https://doi.org/10.1007/s00455-019-10053-6>

ORIGINAL ARTICLE

Cervicofacial and Pharyngolaryngeal Lymphedema and Deglutition After Head and Neck Cancer Treatment

Débora dos Santos Queija¹, Rogério Aparecido Dedivitis², Lica Arakawa-Sugueno¹, Mario Augusto Ferrari de Castro³, Bruna Mello Chamma⁴, Marco Aurélio Vamondes Kulcsar^{2,5}, Leandro Luongo de Matos²

Received: 10 March 2019 / Accepted: 21 August 2019
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**Tradução e adaptação para o português brasileiro da
*Lymphedema Rating Scale in Head and Neck Cancer***

Translation and adaptation to Brazilian Portuguese of the
Lymphedema Rating Scale in Head and Neck Cancer

Débora dos Santos Queija¹, Lica Arakawa-Sugueno², Bruna Mello Chamma³, Marco Aurélio Vamondes Kulcsar⁴, Rogério Aparecido Dedivitis⁵

**Translation and adaptation of the Radiotherapy Edema
Rating Scale to Brazilian Portuguese[☆]**

Débora dos Santos Queija^{1,4}, Lica Arakawa-Sugueno², Bruna Mello Chamma³, Marco Aurélio Vamondes Kulcsar^{4,6} e Rogério Aparecido Dedivitis^{4,7}

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ORIGINAL ARTICLE

VANDERBILT HEAD AND NECK SYMPTOM SURVEY VERSION 2.0: REPORT OF THE DEVELOPMENT AND INITIAL TESTING OF A SUBSCALE FOR ASSESSMENT OF ORAL HEALTH

Emily Cooperstein, BA,¹ Jill Gilbert, MD,² Joel B. Epstein, DMD, MSD,³ Mary S. Dietrich, PhD,^{4,5} Stewart M. Bond, RN, PhD,⁵ Sheila H. Ridner, RN, PhD,⁵ Nancy Wells, RN, PhD,⁵ Anthony Cmelak, MD,⁶ Barbara A. Murphy, MD²

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⁵Vanderbilt University School of Nursing, Nashville, Tennessee
⁶Department of Radiation Oncology, Vanderbilt University Medical Center, Nashville, Tennessee

Accepted 4 April 2011
Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/hed.21816

VHNSS 2.0 domains	Mean	Standard deviation	Minimum	Median	Maximum
Nutrition	1.24	1.89	0.00	0.00	9.25
Swallowing solids	2.63	2.22	0.00	2.25	9.88
Swallowing liquids	0.86	1.74	0.00	0.00	9.00
Dry mouth	3.38	2.72	0.00	2.80	10.0
Mouth pain	0.75	1.52	0.00	0.00	7.67
Mucus	1.30	1.87	0.00	0.50	10.00
Voice	2.59	2.60	0.00	1.67	10.00
General pain	1.13	2.10	0.00	0.00	10.00
Taste/Smell	1.46	1.97	0.00	0.50	9.77
Tooth	2.37	2.38	0.00	2.00	10.00
Trismus	1.54	2.72	0.00	0.00	10.00
Neck	1.44	2.59	0.00	0.00	10.00
Hearing	1.78	3.05	0.00	0.00	10.00

Braz J Otorhinolaryngol. 2015;81(4):637-639

Brazilian Journal of
OTORHINOLARYNGOLOGY
www.bjorl.org.br

ARTIGO ORIGINAL

Translation and cross-cultural adaptation into Brazilian Portuguese of the Vanderbilt Head and Neck Symptom Survey version 2.0 (VHNSS 2.0) for the assessment of oral symptoms in head and neck cancer patients submitted to radiotherapy[☆]

Eliane Marçom Barroso^{1,4}, André Lopes Carvalho^{1,2,5,6}, Carlos Eduardo Paiva^{1,3,5,6}, João Soares Nunes¹, Bianca Sakamoto Ribeiro Paiva^{1,5}

Barroso et al. BMC Res Notes (2015) 8:522
DOI 10.1186/s13104-015-1479-8

BMC Research Notes

RESEARCH ARTICLE Open Access

The Vanderbilt Head and Neck Symptom Survey Brazilian Portuguese version 2.0 (VHNSS 2.0): psychometric properties for patients with head and neck cancer who have undergone radiotherapy

Eliane Marçom Barroso^{1,5,6*}, André Lopes Carvalho^{1,2,5,6}, Carlos Eduardo Paiva^{1,3,5,6}, Barbara A. Murphy⁴ and Bianca Sakamoto Ribeiro Paiva^{1,5,6}

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Avaliação da Face**(1) Circunferência facial**

- (a) Diagonal: mento à glabella _____
 (b) Submentoniana: <1 cm à frente da orelha, alinhamento vertical da fita _____

(2) Ponto a ponto

- (a) Ângulo à ângulo da mandíbula – _____
 (b) Trágus à trágus - _____

(c) Composição facial

- (I) Trágus à protuberância mentoniana D ____ / E ____
 (II) Trágus à comissura labial D ____ / E ____
 (III) Ângulo da mandíbula à asa nasal D ____ / E ____
 (IV) Ângulo da mandíbula ao canto interno do olho D ____ / E ____
 (V) Ângulo da mandíbula ao canto externo do olho D ____ / E ____
 (VI) Protuberância mentoniana ao canto interno do olho D ____ / E ____
 (VII) Ângulo da mandíbula à protuberância mentoniana D ____ / E ____

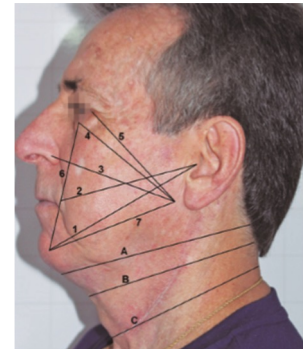
Circunferências do pescoço

- (A) Superior: imediatamente abaixo da mandíbula _____
 (B) Medial: porção média entre a superior e inferior _____
 (C) Inferior: Porção mais baixa _____

Tradução e adaptação para o português brasileiro da Lymphedema Rating Scale in Head and Neck Cancer

Translation and adaptation to Brazilian Portuguese of the Lymphedema Rating Scale in Head and Neck Cancer
 Débora dos Santos Queija¹, Liza Arakawa-Sugueno², Bruna Mello Chamma³,
 Marco Aurélio Viamonde Kalks⁴, Rogério Aparecido Dedivitis⁵

Smith *et al.* (2011), Tradução Queija *et al.* (2017)



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Escala do linfedema de face e pescoço do MDACC – medidas adaptadas e adicionais



Lymphedema Management -
 The Comprehensive Guide
 for Practitioners, 2013



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Estadiamento do linfedema do *MDACC*

Smith *et al.* (2011), Tradução Queija *et al.* (2017)

Tradução e adaptação para o português brasileiro da *Lymphedema Rating Scale in Head and Neck Cancer*

Translation and adaptation to Brazilian Portuguese of the
Lymphedema Rating Scale in Head and Neck Cancer

Débora dos Santos Queija¹, Lica Arakawa-Sugueno², Bruna Mello Chamma³,
Marco Aurélio Vamondes Kulcsar^{4*}, Rogério Aparecido Dedivitis⁵

Níveis	Descrição
0	Sem edema visível, mas o paciente relata peso
1a	Edema leve visível: sem depressão, reversível
1b	Edema com depressão leve; reversível
2	Edema com depressão firme; irreversível; sem alteração dos tecidos
3	Edema irreversível; alterações dos tecidos

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Escala do edema da (edema interno)

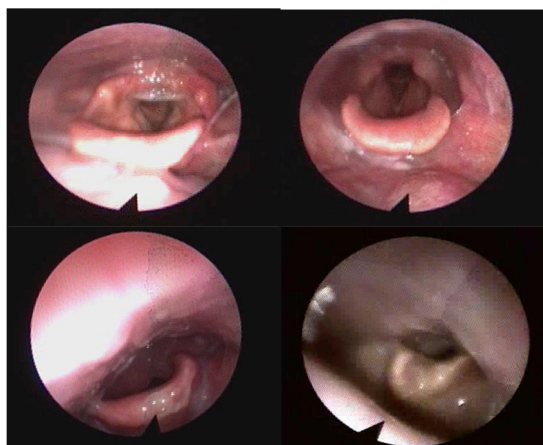
Patterson *et al.* (2007), Tradução Queija *et al.* (2017)

Translation and adaptation of the Radiotherapy Edema
Rating Scale to Brazilian Portuguese^{1*}



Débora dos Santos Queija^{1*}, Lica Arakawa-Sugueno², Bruna Mello Chamma³,
Marco Aurélio Vamondes Kulcsar^{4*} e Rogério Aparecido Dedivitis⁵

Estruturas	Classificação do edema			
	Normal	Discreto	Moderado	Severo
Base da língua				
Parede posterior de faringe				
Epiglote				
Pregas faringo-epiglóticas				
Pregas ariteplóticas				
Espaço interaritenóideo				
Área retrocricóidea				
Aritenóides				
Pregas vestibulares				
Pregas vocais				
Comissura anterior				
Espaços	Normal	Discretamente reduzida	Moderadamente reduzida	Severamente reduzida
Valécua				
Seios piriformes				



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FIG. 3. Prevertebral soft tissue thickness is measured on midline sagittal reformatted image, at the mid C3 level. (A) Baseline measurement before treatment. (B) Thickened prevertebral soft tissues 8 months after radiation treatment of a base of tongue primary tumor and adenopathy.

LYMPHATIC RESEARCH AND BIOLOGY
Volume 18, Number 1, 2018
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DOI: 10.1089/lrb.2017.0004

Evaluation of CT Changes in the Head and Neck After Cancer Treatment: Development of a Measurement Tool

Joseph M. Aulino, MD¹, Elizabeth M. Wulff-Burchfield, MD², Mary S. Dietrich, PhD^{3,4}, Sheila H. Richter, PhD, FRCS⁵, Kenneth J. Harriman, MD⁶, Jia Deng, PhD, RN⁷, Barbara A. Proctor, PhD, RN⁸, Jennifer K. Coersman, MD⁹, Lee Ann Jarrett, PhD, FRCS¹⁰, Kyle Morrison, MD¹¹, and Barbara A. Murphy, MD¹²


Tomografia Computadorizada e
Moisture Meter



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Radiation-Induced Fibrosis in Patients with Head and Neck Cancer: A Review of Pathogenesis and Clinical Outcomes

Paul Ramia¹, Larry Bodgi², Dima Mahmoud², Mohammad A Mohammad², Bassem Youssef², Neil Kopek¹, Humaid Al-Shamsi^{3,4,5}, Mona Dagher² and Ibrahim Abu-Gheida^{3,4,6}



DOI:10.4103/anionation.71.18

Older Age -

Previous Surgery -

Chemotherapy -

Old RT techniques -

Larger Tumor/ Treatment volumes -

Individual Radio-sensitivity -

Genetic predisposing factors -

Fibrosis Severity →

Clinical Medicine Insights: Oncology
Volume 16: 1-7
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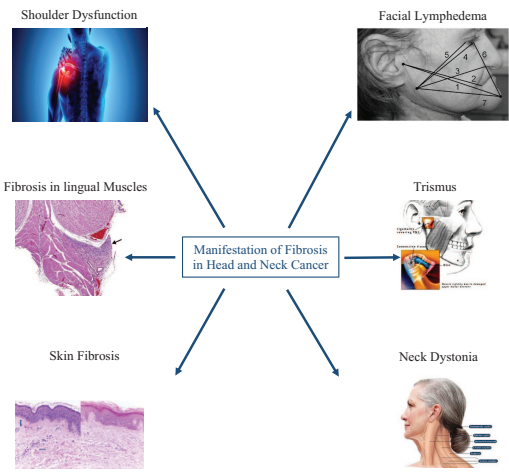


Figure 1. Head and neck radiation-induced fibrosis manifestations and risk factors.

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Head and neck lymphedema management: Evaluation of a therapy program

2018

Amanda Pigott BOccThy, PhD¹ | Jodie Nixon BAppSc (OccThy)¹ |
Jennifer Fleming BOccThy, PhD² | Sandro Porceddu MD, FRANZCR³

The effectiveness of the manual lymphatic drainage in the postoperative period of head and neck cancer

Elaine Gonçalves Arieiro¹
Kátia de Souza Machado¹
Vanessa Pereira de Lima²
Rogério Eduardo Tacani³
Andréia Maldonado Diz¹

Rev. Bras. Cir. Cabeça Pescoço, v. 36, n° 1, p. 43 - 46, janeiro / fevereiro / março 2007

PHYSIOTHERAPY THEORY AND PRACTICE
https://doi.org/10.1186/109593985-2022-2056862

2022



Check for updates

The efficacy of Kinesio taping on lymphedema following head and neck cancer therapy: a randomized, double blind, sham-controlled trial

Sevgi Atar MD[✉], Yavuz Atar MD[✉], Ugur Uygan MD[✉], Seyma Görcin Karaketir MD[✉], Tolgar Lütfi Kumral MD[✉], Hüseyin Sari MD[✉], Semih Karaketir MD[✉], and Ömer Kuru MD[✉]

The Laryngoscope
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Rhino and Otolaryngological Society, Inc.

Effectiveness of a Home-based Head and Neck Lymphedema Management Program: A Pilot Study

Theresa Yao, MS CF-SLP; Beth Beadle, MD PhD; C. Floyd Holsinger, MD[✉];
Heather M. Starmer, MA CCC-SLP, BCS-S[✉]

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DLM-Leduc

Lymphedema
A Concise Compendium of Theory and Practice
Second Edition, 2018

A manobra realizada nos linfonodos -leve mobilização da pele sobre os linfonodos em questão

- Sentido da maior drenagem linfática da região tratada, com aplicação manual de uma pressão equivalente ao peso da mão
- A mão espalmada é aplicada na área, evitando qualquer rotação que imponha uma força de cisalhamento, o que pode gerar uma resposta inflamatória local
- A manobra é repetida 10 x em cada conjunto de linfonodos

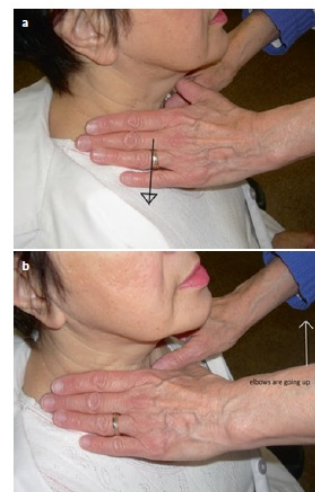


Fig. 43.1 Maneuver applied to the supraclavicular lymph nodes. a ascending, b descending

Slide da Dra Debora Queija

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DLM-Leduc

Lymphedema

A Concise Compendium of Theory and Practice
Second Edition, 2018

A manobra de **CHAMADA/CAPTAÇÃO** é aplicada proximalmente à área linfedematosa ou após a conclusão da manobra de reabsorção – na direção distal para proximal na área tratada linfedematosa

O aspecto radial da mão é colocado em contato com a pele

A manobra visa inicialmente mobilizar a pele na direção do fluxo linfático primário, seguida da aplicação de uma leve pressão com a mão cheia ou vários dedos, conforme ditado pelo tamanho da área envolvida.

A manobra será repetida 5X em cada seção do local tratado



■ Fig. 43.2 Call-up maneuver applied proximally toward the para-auricular lymph nodes. a posteriorly directed, b anteriorly directed

Slide da Dra Debora Queija

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DLM-Leduc

Lymphedema

A Concise Compendium of Theory and Practice
Second Edition, 2018

A manobra de **REABSORÇÃO/EVACUAÇÃO** – aspecto ulnar da mão do terapeuta é colocado em contato com a pele

É realizada uma mobilização da pele no sentido do fluxo linfático

Depois disso, a mão inteira ou vários dedos, conforme ditado pelo tamanho da área tratada – leve pressão

Realizada na direção proximal para distal à área linfedematosa

É repetido quantas vezes forem necessárias, até que se perceba uma diminuição da tensão do tecido linfedematoso



■ Fig. 43.3 Reabsorption maneuver applied proximally toward the para-auricular lymph nodes. a posteriorly directed, b anteriorly directed

Slide da Dra Debora Queija

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Exercícios miofuncionais

Associados à DLM e enfaixamentos




Figure 3. Hereford collar: soft neck collar made of cotton, seamed with channels containing polystyrene beads

Box 1. Head and neck cancer-related lymphoedema exercises

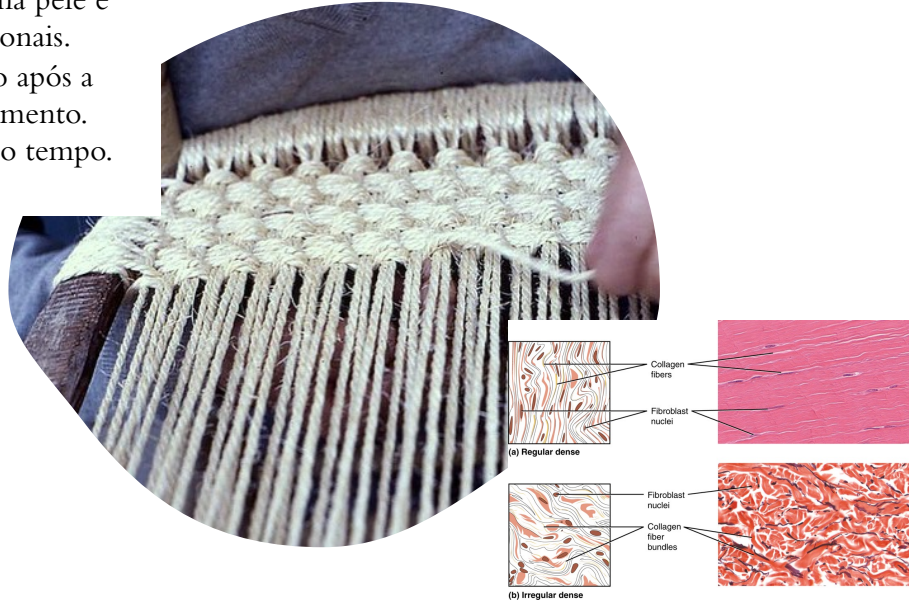
1. Deep breathing: five deep breaths, each held for a slow count of 2
2. Shrug shoulders up and down. Repeat five times
3. Shrug shoulders back (to expand chest) and relax. Repeat five times
4. Face forward, then turn head to left as far as it will go, then back to the centre and round to the right as far as it will go and back to centre. Repeat five times
5. Facing forward, tilt head back as far as you can comfortably go and then bring chin down to chest (squashing the collar) and back to start point. Repeat five times
6. Tilt left ear to shoulder and then right ear to shoulder. Repeat five times
7. Shrug shoulders up and down. Repeat five times
8. Shrug shoulders back (to expand chest) and relax. Repeat five times
9. Poke tongue out slowly, as far as it will go, and slowly pull tongue back in. Repeat five times
10. Mouth (whisper) vowel sounds, slowly and exaggerated = a, e, i, o, u. Repeat five times
11. Smile (as if having portrait photo taken) and hold for 2, then relax. Repeat five times
12. Scrunch eyes tight, hold for 2 and relax. Repeat five times
13. Shrug shoulders up and down. Repeat five times
14. Shrug shoulders back (to expand chest) and relax. Repeat five times
15. Deep breathing: five deep breaths, each held for a slow count of 2

Source: Lymphoedema Support Network (2010)

Jeffs E, Huit M. Treatment and outcomes of head and neck oedema referrals to a hospital-based lymphoedema service. Chronic Oedema, 2015

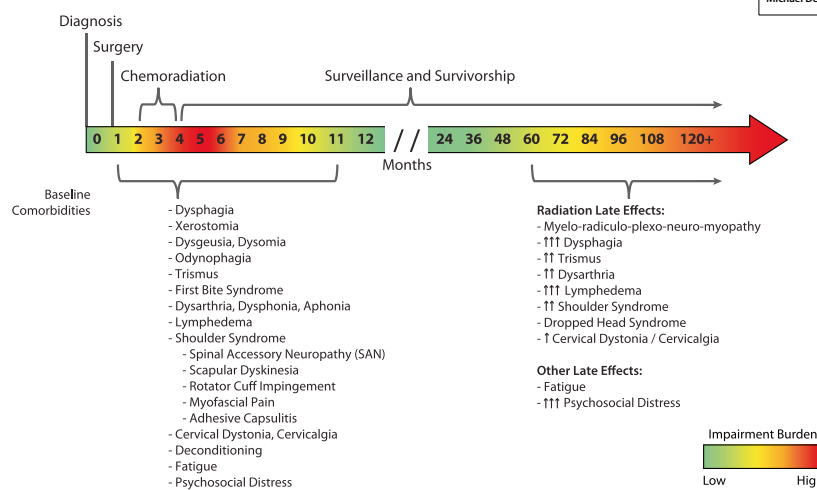
70

Fibrose e cicatrizes na pele e musculatura regionais.
Ocorrem até 1 ano após a conclusão do tratamento.
Podem piorar com o tempo.



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Evolution of Impairment Burden in Head and Neck Cancer



Current Oncology Reports (2022) 24:517–532
<https://doi.org/10.1007/s11912-022-01227-x>

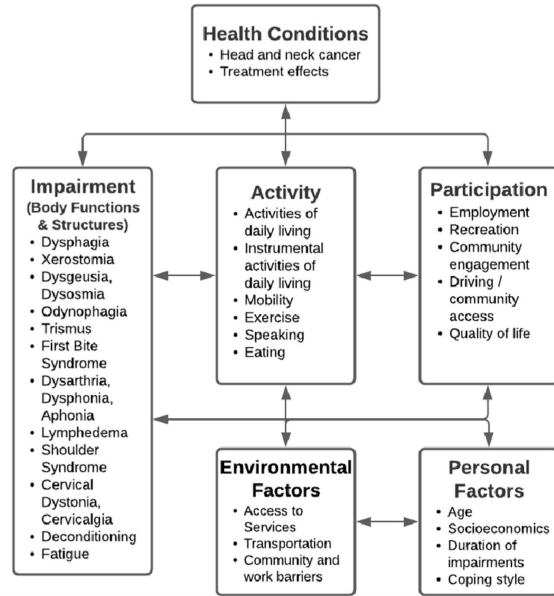
CANCER REHABILITATION (S SHAHPAR, SECTION EDITOR)

State of Rehabilitation Research in the Head and Neck Cancer Population: Functional Impact vs. Impairment-Focused Outcomes

Sara C. Parke¹ · David Michael Langellier² · Jessica Tse Cheng³ · Cristina Kline-Quiroz⁴ · Michael Dean Stubblefield⁵

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Fig. 1 Adaptation of the *International Classification of Functioning* framework for head and neck cancer survivors. The configuration has been altered from standard formatting to highlight the plethora of functional impairments in this population



Current Oncology Reports (2022) 24:517–532
https://doi.org/10.1007/s11912-022-01227-x

CANCER REHABILITATION (S SHAHPAR, SECTION EDITOR)

State of Rehabilitation Research in the Head and Neck Cancer Population: Functional Impact vs. Impairment-Focused Outcomes

Sara C. Parke¹ · David Michael Langellier² · Jessica Tse Cheng³ · Cristina Kline-Quiroz⁴ · Michael Dean Stubblefield⁵

73

A novel manual therapy programme during radiation therapy for head and neck cancer – our clinical experience with five patients

Krisciunas, G.P.,* Golan, H.,* Marinko, L.N.,[†] Pearson, W.,[‡] Jalsi, S.* & Langmore, S.E.[§]

• Clin Otolaryngol.2016 Aug;41(4):425–31. doi: 10.1111/coa.12535.

Liberação miofascial

Table 1. Manual therapy protocol

Swallow event	Cranio-mandibular joint involvement	Oral, pharyngeal, laryngeal involvement	Manipulation technique/Targeted therapy	Swallow event	Cranio-mandibular joint involvement	Oral, pharyngeal, laryngeal involvement	Manipulation technique/Targeted therapy
Bolus formation (Tongue elevation and retraction)	TMJ (temporomandibular joint): side of bolus formation will direct, contralateral side will translate anteriorly and rotate Cranio-cervical region: bilateral atlantooccipital post and anterior glide as mandible depresses and elevates to form bolus	Muscles of mastication: buccinators, tongue, TMJ (muscles), suprahyoids, floor of mouth (digastric & omohyoid)	SLP intervention: Apply soft tissue techniques externally to the masseter and intra-orally to the medial pterygoid as it inserts in the angle of mandible and floor of mouth. PT intervention: Soft tissue mobilization: Manual stretch of medial and lateral pterygoids and masseter intra-orally. Joint mobility to TMJ for both translation and lateral deviation, depression of mandible. Atlantooccipital and atlantoaxial mobility into flexion, extension, and rotation, segmental traction as necessary.	Hyolaryngeal excursion & Pharyngeal lift	Upper thoracic and scapulothoracic alignment and mobility: Upper T spine extension necessary for adequate position of supra and infra hyoid musculature	1. Superior & Anterior Hyoid Movement Muscles: Suprahyoids 2. Thyrohyoid approximation: Thyrohyoid (TH) 3. Pharyngeal Shortening Muscles: Long pharyngeal (stylopharyngeus and palato-stylopharyngeus)	(perhaps also the styloglossus, stylohyoid and posterior digastric) 3. Laryngeal manipulation: Increase distance between the cricoid and thyroid with cricohyoid stretch. Stretch the constrictors using hyoid stretch, and pull the hyoid forward using the thyroid complex. PT intervention: Manual techniques of upper thoracic spine and SCM performed to facilitate adequate platform of cranio-cervical region for muscles of closure/ pharyngeal mobility. SLP intervention: 1. Stretch/decompress suprahyoids (as above) 2. Stretch TH. Increase distance between the hyoid and thyroid cartilage by pulling these two structures apart. Apply direct soft tissue techniques to the muscles overlying the thyroid laminae. 3. Stylopharyngeus (Long pharyngeal muscle group) lengthening. TH head laterally, push the hyolaryngeal complex laterally in the same direction.
Bolus transfer	TMJ: same as above Mid cervical spine: segmental stabilization of mid cervical spine to enable adequate length tension of hyoid muscles	Tongue muscles: Extrinsic muscles: hyoglossus, styloglossus, palatoglossus Intrinsic muscles: superior longitudinal, inferior longitudinal, verticalis, transverse Suprahyoid (SH) Muscles: mylohyoid, geniohyoid, digastric, stylohyoid Cranio-cervical flexors: longus colli and longus capitis	SLP intervention: Lateral Tongue Stretch: Patient grabs tongue with gaze and pulls it laterally while therapist anchors the hyoid to stretch the hyoglossus and styloglossus on the contralateral side. Massage the hyoglossus and styloglossus above hyoid if possible. This also works on the attachment of middle constrictor. Floor of oral cavity: Increase pliability and distance between mandible and hyoid. Stretch the suprahyoid muscles. Especially target the posterior mylohyoid, geniohyoid, and secondarily the anterior digastric, and posterior digastric/stylohyoid. Use the hyoid as a lever to stretch those structures. PT intervention: Manual digital resistance to segments in cervical spine to facilitate Longus colli and capitis P/A to C2-C6 while patient maintains neutral neck and simultaneously moves tongue anterior and superior.	Pharyngeal squeeze	N/A	1. Superior pharyngeal constrictor has attachments to the tongue decussating with the insertion of the styloglossus and palatoglossus at the lateral portion of the root of the tongue. 2. Middle pharyngeal constrictor is attached anteriorly to the greater horn of the hyoid, lesser horn and stylohyoid ligament. 3. Inferior pharyngeal constrictor inserts into the thyroid and cricoid cartilage	1. Superior: Lateral tongue stretch but this time move hyoid from side to side. 2. Middle: Using the hyoid as a lever, pull it forward and side to side to stretch out the middle constrictors. Massage above hyoid to stylohyoid ligament. 3. Move Thyroid from side to side to work on the inferior constrictors. Apply soft tissue techniques to the lateral side of thyroid and cricoid cartilage. (An important part of this therapy may be breaking any fibrotic attachments between pretracheal and prevertebral fascial compartments.) Stretch those muscles by stabilizing and exerting an upward and lateral pressure on the thyroid cartilage. The inferior belly of the omohyoid runs through the inferior portion of the posterior triangle of the neck and is stretched by neck rotation.
Valve closure: 1. VP valve closure (Naso-pharyngeal) 2. Oral cavity closure	N/A	1. VP Valve Closure Muscles: levator veli palatini and (pharyngeal) pharynx portion of superior pharyngeal constrictor 2. Oral Cavity Closure Muscles: styloglossus, palatoglossus, superior pharyngeal constrictor, suprahyoids, middle constrictor	SLP intervention: 1. Esili velum figure say n-g-e-n-g-e multiple times slowly with a strong 'ee' then faster. 2. Open mouth/throat as wide as possible and depress the alternating sides of the root of the tongue with a tongue depressor to stretch the palatoglossus	Hyolaryngeal descent	N/A	Infrahyoids: omohyoid, sternohyoid, and sternothyroid. Thyrohyoid depresses when others are activated.	PT treatment protocol overview 1. Upper cervical mobilization techniques to insure adequate cranio-cervical flexion and extension, and atlantooccipital and atlantoaxial mobilization. Use manipulation techniques as needed. 2. Upper Thoracic mobilization techniques to insure ability to attain neutral spine. 3. TMJ mobilization and manipulation as necessary to insure adequate translation and rotation of TMJ 4. Manual stretching techniques for muscles of mastication, medial & lateral pterygoids, suboccipitals including splenius capitis and cervicis, sternocleidomastoid, upper trapezius, levator scapulae, pectoralis minor. 5. Muscle retraining and endurance exercise of deep neck flexors (longus colli and capitis), posterior cervical muscles including but not limited to multifidi, semi spinalis capitis, cervicis, and posterior scapulothoracic muscles including middle trapezius, rhomboids, lower trapezius.

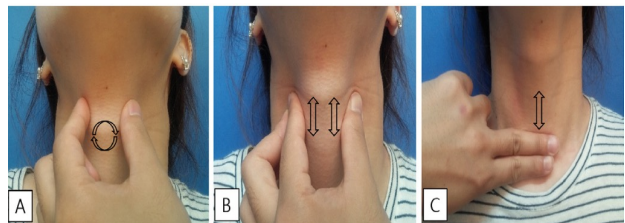
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Liberação miofascial de pescoço e ferida pós-tireoidectomia

Lee et al. (2018)

Instruções para a massagem :

1. Pressionar suavemente a ferida, movendo-a e o tecido circundante como um pequeno círculo com os dedos
2. Fazer grandes círculos, movendo a pele sobre o tecido por baixo, em vez de esfregar na superfície da pele
3. Movimento vertical no mesmo local com os dedos
4. Massagear por cerca de 10 minutos por vez, 3 vezes ao dia
5. Se houver qualquer mudança na aparência da sua pele – como vermelhidão, dor ou gotejamento, interromper a massagem



Liberação miofascial é focada na liberação da aderência da ferida operatória.

(A) Massagem circular no local de aderência;

(B) Massagem vertical no local de aderência;

(C) Massagem vertical no local da incisão cutânea.

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Manual Therapy for Fibrosis-Related Late Effect Dysphagia in head and neck cancer survivors: the pilot MANTLE trial

BMJ Open 2021;11:e047830. doi:10.1136/bmjopen-2020-047830

Katherine Hutcheson¹,² Holly McMillan,² Carla Warneke,³ Christine Porsche,² Kiara Savage,² Sheila Buoy,² Jihong Wang,⁴ Karin Woodman,⁵ Stephen Lai,¹ Clifton Fuller³

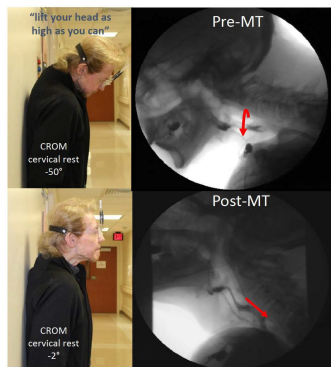


Figure 1 Cervical extension and aspiration improved in case example after manual therapy (MT). Exemplar case before (top) and after (bottom) single session of MT 18 years post-treatment, surgery and radiotherapy for head and neck cancer. Note red arrows on modified barium swallow study depicting residual bolus in pharynx directed anteriorly toward airway with cervical posture in resting forward head drop (top), and directed posteriorly toward oesophagus with cervical extension improved (bottom). While neither swallowing function or nor cervical biomechanics is normalised or ideal, functional gains were observed. CROM, cervical range of motion.

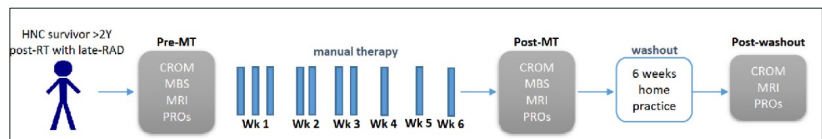



Figure 2 Manual Therapy for Fibrosis-Related Late Effect Dysphagia trial schema. CROM, cervical range of motion; HNC, head and neck cancer; MBS, modified barium swallow; MT, manual therapy; PROs, patient-reported outcomes; RAD, radiation-associated dysphagia; RT, radiotherapy.

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Direcionamentos Futuros

Foco em deficiência negligencia sequelas psicossociais mais amplas associadas à disfagia.


Proposta de combinação de terapia cognitivo-comportamental e intervenções comportamentais de deglutição por meio de programas personalizados.

Considerar a natureza multifatorial da disfagia: incorporar aconselhamento nutricional e funcionamento psicossocial juntamente com a função fisiológica da deglutição para atender às necessidades holísticas do paciente.

Patterson JM et al. Feasibility and acceptability of combining cognitive behavioural therapy techniques with swallowing therapy in head and neck cancer dysphagia. BMC Cancer. 2018;18(1):1–1.

77

Propostas para o futuro: customização com base na motivação, reserva mental, toxicidade do tratamento e local do tumor. Treino de habilidades funcionais e resistência progressiva com base no exame clínico da função de deglutição.



Customização



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Direcionamentos Futuros

USO DE TECNOLOGIA

HNC virtual coach

Mobili-T

Biofeedback como ultrassom, manometria e EMG de superfície



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Interdisciplinariedade



SYSTEMATIC REVIEW
published: 08 March 2021
doi: 10.3389/fonc.2021.630906

Impact of Multidisciplinary Team Management on the Survival Rate of Head and Neck Cancer Patients: A Cohort Study Meta-analysis

Changyi Shang¹, Linfei Feng¹, Ying Gu², Houlin Hong³, Lilin Hong^{4*} and Jun Hou^{1*}

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² Department of General Dentistry, School of Dental Medicine, Stony Brook University, Stony Brook, NY, United States,

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Dysphagia (2019) 34:89–104
<https://doi.org/10.1007/s00455-018-9917-4>

ORIGINAL ARTICLE

Establishing a Multidisciplinary Head and Neck Clinical Pathway: An Implementation Evaluation and Audit of Dysphagia-Related Services and Outcomes

Barbara Pisano Messing^{1,2,7} · Elizabeth C. Ward^{2,3} · Cathy Lazarus⁴ · Keri Ryniak¹ · Melissa Kim¹ · Jessica Silinonte¹ · Dorothy Gold¹ · Carol B. Thompson² · Karen T. Pitman^{1,6} · Ray Blanco¹ · Ryan Sobel¹ · Karen Harrer¹ · Karen Ulmer¹ · Geoffrey Neuner¹ · Kruti Patel¹ · Mei Tang¹ · Gregory Lee¹

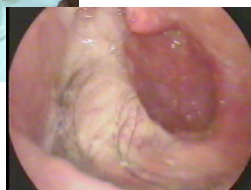
80

Quais são os profissionais da
equipe multidisciplinar
envolvidos no tratamento
oncológico e na reabilitação?



81

Glossectomia total + esvaziamento
cervical + Reconstrução com
músculo peitoral maior



Seguimento com
radioquimioterapia

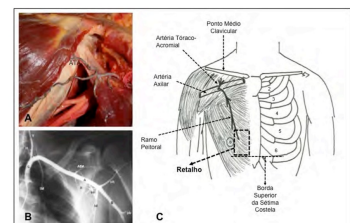


Figura 1. Dissecção anatômica (A) e arteriografia (B) da cintura escapular, demonstrando a emergência da artéria toracoacromial (ATA) – reproduzidas com permissão. Representação anatômica do pedículo vascular e posicionamento do retalho mio-cutâneo de peitoral maior (C).

CMRS Vanni, 2013



Rev. Bras. Cir. Plást. 2010; 25(3): 484-9

82

Glossectomia subtotal +
esvaziamento cervical +
Reconstrução com retalho
microcirúrgico lateral do braço



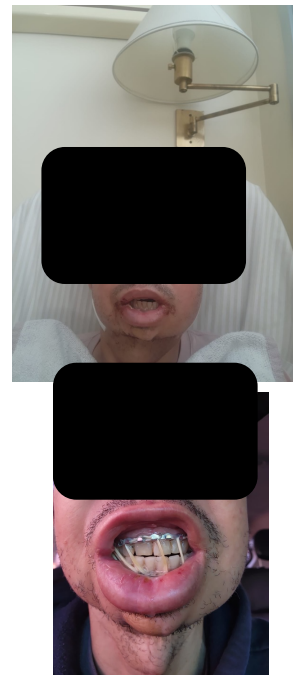
Figura 3 – Retalho lateral do braço 16X8,5cm.
Rev. Soc. Bras. Cir. Plást. 2007; 22(4): 213-8

Seguimento com
radioquimioterapia

83



Mandibulectomia + reconstrução
microcirúrgica de fíbula



84

Quando iniciar a reabilitação nesses casos?

Quais são os critérios de liberação e intervenção

O que é possível fazer no POR?

Como está a secreção e seu manejo?

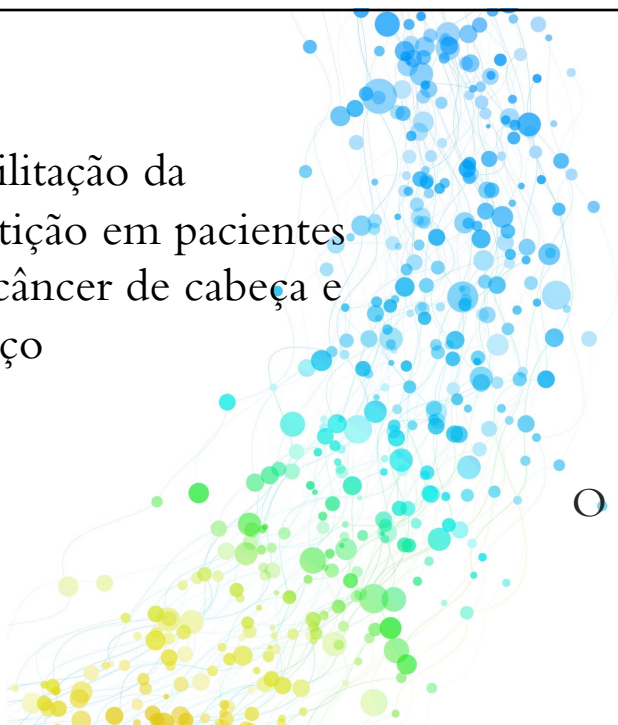
Quais os aspectos mais relevantes na tomada de decisão?



85

Reabilitação da
deglutição em pacientes
com câncer de cabeça e
pescoço

O que (minimamente) os
centros oncológicos
necessitam?



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Fonoaudiologia em CaCP

membros da equipe multidisciplinar de reabilitação

Assistência especializada



Pesquisa, prevenção e reabilitação de fala, voz, deglutição, motricidade orofacial (trismo, linfedema, mímica facial)

Manejo de traqueostomia
Cuidados paliativos

UTI, Semi, enfermaria comum,
ambulatório, domicílio



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- Educação continuada para assistência especializada

PDSA – Plan-Do-Study-Act

Programa de eLearning para formação e desenvolvimento de competências.

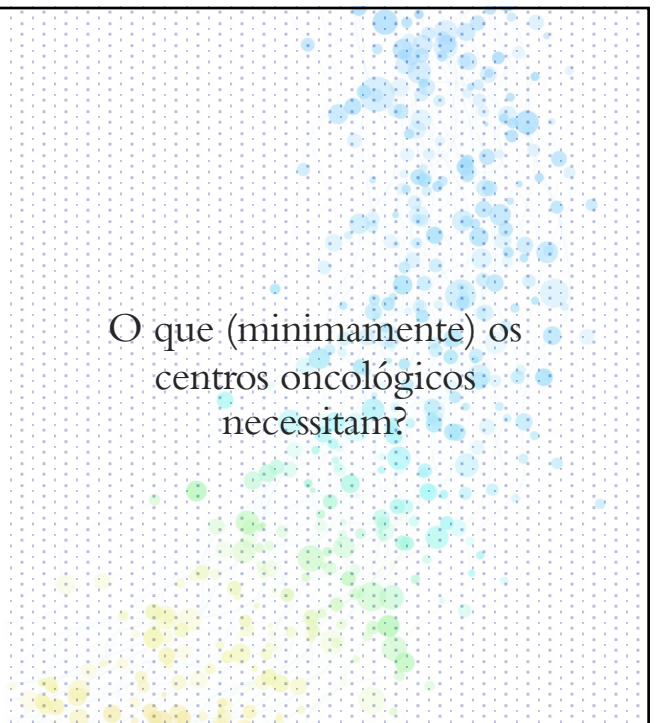
Modelo de cuidados partilhados

Int J Speech Lang Pathol. 2023 Apr;25(2):292-305. doi: 10.1080/17549507.2022.2050300. Epub 2022 May 9.

Enhancing speech-language pathology head and neck cancer service provision in rural Australia: Using a plan, do, study, act approach

Jasmine Foley ¹, Elizabeth C Ward ^{1 2}, Clare L Burns ^{1 3}, Rebecca L Nund ¹, Laurelle R Wishart ^{1 2 4}, Nicky Graham ⁵, Corey Patterson ⁶, Amy Ashley ⁶, Julie Fink ⁶, Emily Tiavaasue ⁷, Wendy Comben ⁶

O que (minimamente) os centros oncológicos necessitam?



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Fonoaudiologia em CaCP

- Início do envolvimento no momento do diagnóstico
 - Orientações de pré habilitação
 - Avaliação de risco funcional
 - Adaptação de segurança para voz, respiração e deglutição
 - Exercícios profiláticos em alguns casos
- Prevenção, terapia e orientação no pós operatório recente
- Prevenção e terapia durante radioquimioterapia
- Terapia no pós operatório e pós término da radioquimioterapia
- Seguimento tardio em casos crônicos

The Journal of Laryngology & Otology (2016), 136 (Suppl. S2), S176-S180.
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reproduction in any medium, provided the original work is properly cited.
doi:10.1017/S0022211116000608

GUIDELINE

Speech and swallow rehabilitation in head and neck cancer: United Kingdom National Multidisciplinary Guidelines

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Momentos de intervenção

Fluxograma

89

- Educação continuada para assistência especializada
- Profissionais (número)
- Fluxograma que viabilize momentos ideais de intervenção
 - Navegação?

Dysphagia (2019) 34:89–104
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ORIGINAL ARTICLE

Establishing a Multidisciplinary Head and Neck Clinical Pathway: An Implementation Evaluation and Audit of Dysphagia-Related Services and Outcomes

Barbara Pisano Messing^{1,2,7}, Elizabeth C. Ward^{1,3}, Cathy Lazarus⁴, Keri Ryniak⁵, Melissa Kim¹, Jessica Silinonte¹, Dorothy Gold⁶, Carol B. Thompson¹, Karen T. Pittman^{1,6}, Ray Blanco¹, Ryan Sobel¹, Karen Harzer¹, Karen Ulmer¹, Geoffrey Neuner¹, Kruti Patel¹, Mei Tang¹, Gregory Lee¹

Impact of Multidisciplinary Team Management on the Survival Rate of Head and Neck Cancer Patients: A Cohort Study Meta-analysis

Changyi Shang¹, Linli Fang¹, Ying Gu¹, Houlin Hong¹, Lili Hong¹ and Jun Hou^{1*}

¹Department of Oral and Maxillofacial Surgery, The First Affiliated Hospital of Anhui Medical University, Hefei, China, ²Department of General Dentistry, School of Dental Medicine, Stony Brook University, Stony Brook, NY, United States, ³Program in Public Health, Stony Brook Medicine, Stony Brook University, Stony Brook, NY, United States, ⁴Department of General Dentistry, The Fourth Affiliated Hospital of Anhui Medical University, Hefei, China

SYSTEMATIC REVIEW
published: 08 March 2021
doi: 10.3389/fonc.2021.630906

frontiers
in Oncology

O que (minimamente) os centros oncológicos necessitam?

90

Avaliação clínica e instrumental da disfagia

- Rastreamento de risco da disfagia e risco de aspiração
- Avaliação clínica da biomecânica da deglutição

Monitoramento do estado clínico
Baixa evidência para relacionar
risco de aspiração

Support Care Cancer (2014) 22:595–602
DOI 10.1007/s00520-013-2011-4

ORIGINAL ARTICLE

Development and validation of a cancer-specific swallowing assessment tool: MASA-C

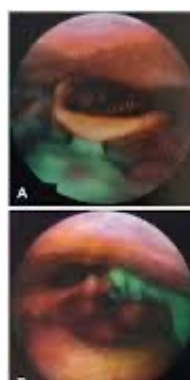
Giselle D. Carnaby · Michael A. Crary



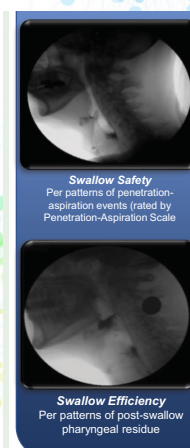
91

Avaliação clínica e instrumental da disfagia

- Nasendoscopia de fibra óptica da deglutição
- Videoendoscopia da deglutição –VED ou *Flexible endoscopy evaluation of swallowing* (FEES)
- Videofluoroscopia ou deglutição de bário modificada
- Manometria de alta resolução



30Frames



92

- Educação continuada para assistência especializada
- Profissionais (número)
- Fluxograma que viabilize momentos ideais de intervenção
 - Navegação?
- Instrumentos (ou protocolos) específicos para essa população e treinamento
- Equipamentos para exame, computador para registro de imagem e ambientes adequados
- Equipe médica especialista ORL, CCP, GTO e RD que atue na área de disfagia e voz
- Material para teste – alimentos, corante (azul ou branco), bário
- Equipamentos e profissionais para aspiração e procedimentos de emergência

O que (minimamente) os centros oncológicos necessitam?

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Reabilitação

Sem conflito de interesse

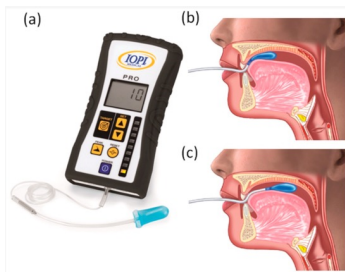


Figure 1. EMST150 connected to a baseplate with the adapter and voice growth plug present.



Figure 2. EMST150 during practice, connected to the baseplate attached to the tracheostomy. The index finger is used to occlude the opening on top during forced exhalation.

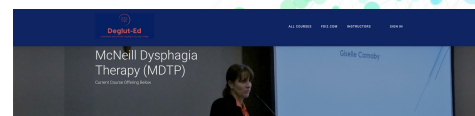
IOPI®



Expiratory Muscle Strength Training for Radiation-Associated Aspiration after Head and Neck Cancer: A Case-Series

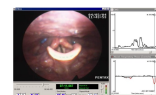
Katherine A. Hutcheson, PhD¹, Martha P. Barrow, MPH¹, Emily K. Plowman, PhD², Stephen Y. Lai, MD, PhD^{1,3}, Clifton David Fuller, MD, PhD⁴, Denise A. Barringer, MS¹, George Eapen, MD⁵, Yiqun Wang, MA¹, Rachel Hubbard, BS¹, Sarah K. Jimenez, MS¹, Leila G. Little, MS¹, and Jan S. Lewin, PhD¹

EMST®



What is MDTP?

MDTP is a computerized, evidence-based approach to dysphagia therapy. It is a specific technique, MDTP is a framework for which dysphagia rehabilitation therapy is delivered. The computerized framework is used to deliver the therapy. MDTP provides the results of video analysis and documentation of the therapy session. MDTP is a computerized framework for the delivery of dysphagia therapy. MDTP is a computerized framework for the delivery of dysphagia therapy. MDTP is a computerized framework for the delivery of dysphagia therapy.

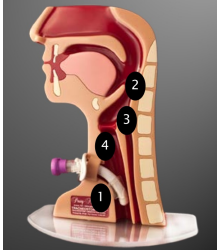


MDTP®

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Reabilitação

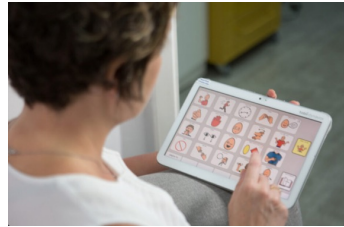
Sem conflito de interesse



Válvula de fala para quem tem laringe

Managing Dysphagia in The Tracheostomized Head and Neck Cancer Patient

Carmin Bartow MS/CCC-SLP BRS-S
Vanderbilt University Medical Center
Linda Stachowiak MS/CCC-SLP BRS-S
MD Anderson Cancer Center Orlando



Tablet e programa de Comunicação suplementar alternativa

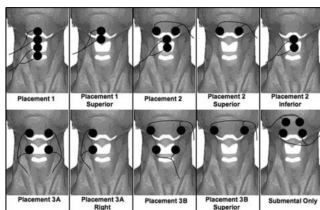
Fotobiomodulação de baixa intensidade



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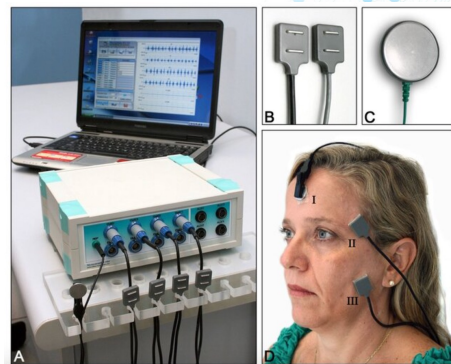
Reabilitação

Sem conflito de interesse



Estimulação elétrica funcional

Elettromiografia de superfície
Biofeedback



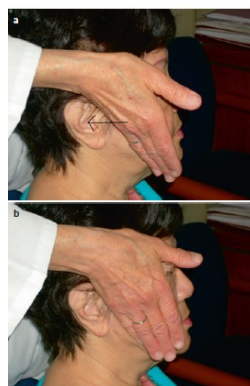
https://www.researchgate.net/publication/334621838_

96

Reabilitação

Sem conflito de interesse

Drenagem linfática cérvico-facial,
compressas, enfaixamentos, bandagem
elástica, colar, komprex



Lymphedema

A Concise Compendium
of Theory and Practice
Second Edition, 2018



Fig. 3.27 A compression bandage for head and neck lymphedema.



Figure 3. Hovord collar: soft neck collar made of cotton, sewed with channels containing polystyrene beads.

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- Educação continuada para assistência especializada
- Profissionais (número)
- Fluxograma que viabilize momentos ideais de intervenção
 - Navegação?
- Instrumentos (ou protocolos) específicos para essa população e treinamento
- Equipamentos para exame, computador para registro de imagem e ambientes adequados
- Equipe médica especialista ORL, CCP, GTO e RD que atue na área de disfagia e voz
- Material para teste – alimentos, corante (azul ou branco), bário
- Equipamentos e profissionais para aspiração e procedimentos de emergência

O que (minimamente) os centros oncológicos necessitam?

- Dispositivos e materiais
- Software para biofeedback
- Programas terapêuticos – exigem treinamento/certificação para uso
 - MDTP
 - Terapia descongestiva completa/complexa

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