

Assessing functional outcomes after treatment of head and neck cancer –  
Recommendations of an interdisciplinary expert committee (as of Oct 2011)

	<b>RECOMMENDATIONS FOR CLINICAL TRIALS*</b>
DIETARY INTAKE	<b>Change in body weight (kg, BMI)</b>
	<b>Number of patients with gastric tube, PEG, parenteral nutrition</b>
	Clinical evaluation dental status
	Nutritional Risk Score (NRS) <sup>1</sup>
	Eating Assessment Tool - Eat 10 <sup>2</sup>
	Penetration Aspiration Scale <sup>3</sup>
	Schluckbeeinträchtigungsskala according to Prosiegel <sup>4</sup>
	EORTC QLQ-H&N35 <sup>5, 6</sup> - single items dietary intake (Fragen 33, 35, 37, 41, 50, 51, 52)
PSYCHO-SOCIAL ISSUES	MD Anderson Dysphagia Inventory - MDADI <sup>7, 8</sup>
	Alcohol Use Disorders Identification Test – AUDIT <sup>9</sup>
	Fagerström-Test for Nicotine Dependence – FTND <sup>10, 11</sup>
PAIN	Hospital Anxiety and Depression Scale – HADS <sup>12, 13</sup>
	<b>Numerical Rating Scale Pain (Scale 0-10)<sup>14</sup></b>
VOICE SPEAKING BREATHING	<b>Number of tracheostomy patients</b>
	Dysphonia Severity Index - DS <sup>15</sup>
	Voice Evaluation Protocol of the European Laryngological Society (ELS) <sup>16</sup>
	Voice Handicap Index – VHI <sup>17, 18, 19</sup>
	Acoustic Measurements
THERAPY CONTROL	<b>Common Terminology Criteria for Adverse Events – CTCAE<sup>20</sup></b>
	<b>Eastern Cooperative Oncology Group (ECOG) Performance Status Scale<sup>21</sup></b>
	Results from imaging and photo-documentation (panendoscopy (incl. tracheoscopy and oesophagoscopy), B-Scan, X-ray, CT, MRT, PET, etc.)
	Late Effects Normal Tissues (LENT)-Subjective, Objective, Management, Analytic (SOMA) scales <sup>22</sup>
	EORTC Quality of Life Questionnaire-C30 <sup>23</sup> and H&N35 <sup>5, 6</sup>
FURTHER ORGANIC PROBLEMS	Active and passive functional examination (possibly goniometer; ruler; crom cervical range of motion instrument)
	Audiogram (sound and voice) before, during, after chemotherapy
	Orienting assessment of cranial nerves
	Laboratory values, depending on indication: blood count, electrolytes, kidney values, TSH and possibly further thyroid values, coagulation test labs, serology, among others
	Muscle function test, classification according to Janda or Kendall shoulder region; neck and facial muscles (incl. tongue) among others
	Sensitivity tests: sensation of cold and hot; light touch incl. documentation bodychart
	Visual acuity test, double vision, subjective vision loss
	Taste test
	Mouth opening, measured in (finger width; cm - slide gauge)

\*Note: instruments printed in bold are recommended for use in all patients with HNC, all the other instruments can be used optionally, if required

# Assessing functional outcomes after treatment of head and neck cancer – Recommendations of an interdisciplinary expert committee (as of Oct 2011)

---

## Literaturverzeichnis

- <sup>1</sup> Kondrup J et al. ESPEN Guidelines for Nutrition Screening 2002. Clinical Nutrition 2003; 22(4): 415–421
- <sup>2</sup> Belafsky PC et al. Validity and Reliability of the Eating Assessment Tool (EAT-10). Annals of Otology, Rhinology A Laryngology 2008; 117(12):919-924
- <sup>3</sup> Rosenbek JC, Robbins JA, Roecker EB, Coyle JL, Wood JL. A penetration-aspiration scale. Dysphagia 1996; 11:93-98
- <sup>4</sup> Prosiegel M et al. Schluckstörungen bei neurologischen Patienten: Eine prospektive Studie zu Diagnostik, Störungsmustern, Therapie und Outcome. Nervenarzt 2002;73:364– 370
- <sup>5</sup> Bjordal K et al. Development of a European Organization for Research and Treatment of Cancer (EORTC) questionnaire module to be used in quality of life assessments in head and neck cancer patients. EORTC Quality of Life Study Group. Acta Oncol 1994; 33: 879–885
- <sup>6</sup> Bjordal K, Hammerlid E, Ahlner-Elmqvist M, et al. Quality of life in head and neck cancer patients: validation of the EORTC QLQ-H&N35. J Clin Oncol 1999, 17, 1008-1019
- <sup>7</sup> Chen AY et al. The development and validation of a dysphagia-specific quality-of-life questionnaire for patients with head and neck cancer: the M. D. Anderson dysphagia inventory. Arch Otolaryngol Head Neck Surg 2001;127:870-6
- <sup>8</sup> Bauer F. Schluckbezogene Lebensqualität bei Mundhöhlenkarzinomen, Anderson-Dysphagia-Inventory, deutsche Version. HNO. 2010; 58: 692-697
- <sup>9</sup> Babor TF et al. (2001). AUDIT: The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Health Care. Geneva, Switzerland: World Health Organization
- <sup>10</sup> Heatherton TF et al. The Fagerström Test for Nicotine Dependence: A revision of the Fagerström Tolerance Questionnaire. Brit J Addict 1991; 86: 1119-1127
- <sup>11</sup> Schumann A, Rumpf HJ, Meyer C et al. Deutsche Version des Fagerström-Test für Nicotine Dependence (FTND-G) und des Heaviness of Smoking Index (HSI-G). In: A. Glöckner-Rist FR, & H. Küfner (Hrsg.), ed. Elektronisches Handbuch zu Erhebungsinstrumenten im Suchtbereich (EHES). Vol. Version 3.00, Mannheim: Zentrum für Umfragen, Methoden und Analysen, 2003
- <sup>12</sup> Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. Acta Psychiatr Scand 1983;67:361-370
- <sup>13</sup> Herrmann C, Buss U, Snaith RP. HADS-D: Hospital Anxiety and Depression Scale--Deutsche Version; Ein Fragebogen zur Erfassung von Angst und Depressivität in der somatischen Medizin. Bern: Verlag Hans Huber 1995
- <sup>14</sup> Jensen MP et al. The Measurement Of Clinical Pain Intensity - A Comparison Of 6 Methods. Pain 1986; 27(1):117-126
- <sup>15</sup> Wuyts FL et al. The Dysphonia Severity Index: An objective measure of vocal quality based on a multiparameter approach. J Speech Lang Hear Res 2000; 43(3): 796-809
- <sup>16</sup> Friedrich G, Dejonckere PH. Das Stimmdiagnostik-Protokoll der European Laryngological Society (ELS) - erste Erfahrungen im Rahmen einer Multizenterstudie. Laryngo-Rhino-Otol 2005; 84: 744-752
- <sup>17</sup> Jacobson BH et al. The Voice Handicap Index (VHI): Development and Validation. J Speech-Lang Path 1997;6:66-70
- <sup>18</sup> Nawka T et al. Validierung des Voice Handicap Index (VHI) in der deutschen Fassung. HNO 2003;51:921–929
- <sup>19</sup> Rosen CA et al. Development and validation of the voice handicap index-10. Laryngoscope 2004; 114:1549–1556
- <sup>20</sup> Common Terminology Criteria for Adverse Events (CTCAE) Version 4.0; Published: May 28, 2009 (v4.03: June 14, 2010)
- <sup>21</sup> Oken MM et al. Toxicity And Response Criteria Of The Eastern Cooperative Oncology Group. Am J Clin Oncol. 1982; 5: 649-655
- <sup>22</sup> Late Effects of Normal Tissues (LENT) Consensus Conference. Lent soma scales for all anatomic sites. International Journal of Radiation Oncology\*Biology\*Physics 1995; 31(5): 1049-1091
- <sup>23</sup> Aaronson NK et al. The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology. J Natl Cancer Inst 1993; 85:365-76