

Head and Neck Cancers, Version 2.2013

Featured Updates to the NCCN Guidelines

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Abstract

These NCCN Guidelines Insights focus on nutrition and supportive care for patients with head and neck cancers. This topic was a recent addition to the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Head and Neck Cancers. The NCCN Guidelines Insights focus on major updates to the NCCN Guidelines and discuss the new updates in greater detail. The complete version of the NCCN Guidelines for Head and Neck Cancers is available on the NCCN Web site (NCCN.org). (*JNCCN* 2013;11:917–923)

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Disclosures for the NCCN Head and Neck Cancers Panel

Individual disclosures of potential conflicts of interest for the NCCN Head and Neck Cancers Panel members can be found on page 918.

Please Note

The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) are a statement of consensus of the authors regarding their views of currently accepted approaches to treatment. **The NCCN Guidelines® Insights highlight important changes in the NCCN Guidelines® recommendations from previous versions. Colored markings in the algorithm show changes and the discussion aims to further understanding of these changes by summarizing salient portions of the panel's discussion, including the literature reviewed.**

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Learning Objectives:

Upon completion of this activity, participants will be able to:

- Integrate into professional practice the updates to NCCN Guidelines for Head and Neck Cancers
- Describe the rationale behind the decision-making process for developing the NCCN Guidelines for Head and Neck Cancers

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Disclosure of Affiliations and Significant Relationships: NCCN Head and Neck Cancers Panel

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PRINCIPLES OF NUTRITION: MANAGEMENT AND SUPPORTIVE CARE¹⁻³

Most head and neck cancer patients lose weight as a result of their disease, health behaviors, and treatment-related toxicities. Nutritional management is very important in head and neck cancer patients to improve outcomes and to minimize significant temporary or permanent treatment-related complications (eg, severe weight loss). It is recommended that the multidisciplinary evaluation of head and neck cancer patients include a registered dietitian and a speech-language/swallowing therapist.

Assessment and Management

• Nutrition

- Close monitoring of nutritional status is recommended in patients who have: 1) significant weight loss (>10% ideal body weight); and/or 2) difficulty swallowing because of pain or tumor involvement prior to treatment. All patients should be evaluated for nutritional risks and should receive nutrition counseling by a registered dietitian and/or indicated treatment with various nutrition interventions, such as feeding tubes (eg, nasogastric [NG] tubes, percutaneous endoscopic gastrostomy [PEG] tubes) or intravenous nutrition support (but only if enteral support is not feasible).
- Pre- and post-treatment functional evaluation including nutritional status should be undertaken using either subjective or objective assessment tools. All patients should receive dietary counseling with the initiation of treatment, especially with radiotherapy-based treatments. Follow-up with the registered dietitian should continue at least until the patient has achieved a nutritionally stable baseline following treatment. For some patients with chronic nutritional challenges, this follow-up should be ongoing.

• Speech and Swallowing

- A formal speech and swallowing evaluation at baseline is recommended: 1) for patients with speech and/or swallowing dysfunction; or 2) for patients whose treatment is likely to affect speech and/or swallowing. Patients with ongoing abnormal function should be seen regularly by speech-language pathologists. Dysphagia and swallowing function can be measured by clinical swallowing assessments or by videofluoroscopic swallowing studies. Patient quality-of-life evaluations should also include assessment for any changes in speech and communication; changes in taste; and assessment for xerostomia, pain, and trismus. Follow-up with the speech-language pathologist should continue at least until the patient has achieved a stable baseline following treatment. For some patients with chronic speech and swallowing challenges, this follow-up may need to be indefinite.

¹Ehrsson YT, Langius-Eklöf A, Laurell G. Nutritional surveillance and weight loss in head and neck cancer patients. *Support Care Cancer* 2012;20:757-765.

²Locher JL, Bonner JA, Carroll WR, et al. Prophylactic percutaneous endoscopic gastrostomy tube placement in treatment of head and neck cancer: a comprehensive review and call for evidence-based medicine. *JPEN J Parenter Enteral Nutr* 2011;35:365-374.

³Langius JA, van Dijk AM, Doornaert P, et al. More than 10% weight loss in head and neck cancer patients during radiotherapy is independently associated with deterioration in quality of life. *Nutr Cancer* 2013;65:76-83.

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NCCN Categories of Evidence and Consensus

Category 1: Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

Category 2A: Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

Category 2B: Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.

Category 3: Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

All recommendations are category 2A unless otherwise noted.

Clinical trials: NCCN believes that the best management for any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

Overview

A new section on “Principles of Nutrition” was recently added to the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Head and Neck Cancers. This new section outlines the management of nutrition and supportive care for patients with head and neck cancers who are prone to weight loss, which can often be severe, as a result of treatment-related toxicity, disease, and health behaviors.¹ Multidisciplinary evaluation is integral to minimizing or decreasing weight loss and should involve a registered dietitian and a speech-language/swallowing therapist.

Before treatment, patients with head and neck cancer are prone to weight loss because they may have difficulty swallowing from pain or obstruction caused by their tumor; patients are also at risk for dehydration. Although multimodality treatment for head and neck cancers is improving outcomes, it can be associated with severe toxicities.¹⁻³ Many patients with head and neck cancers will receive radiation-

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PRINCIPLES OF NUTRITION: MANAGEMENT AND SUPPORTIVE CARE¹⁻³**Use of Alternative Routes for Nutrition (NG and PEG Tubes)**

- The panel does not recommend prophylactic PEG or NG tube placement in patients with very good PS and without significant pretreatment weight loss, significant airway obstruction, or severe dysphagia. However, these patients will need encouragement to monitor their caloric intake and to assess for changes in body weight during treatment. They also may need temporary tube feeding intervention during and/or after treatment.
- Prophylactic feeding tube placement should be strongly considered for patients with:
 - > Severe weight loss prior to treatment, 5% weight loss over prior 1 month, or 10% weight loss over 6 months;
 - > Ongoing dehydration or dysphagia, anorexia, or pain interfering with the ability to eat/drink adequately;
 - > Significant comorbidities that may be aggravated by poor tolerance of dehydration, lack of caloric intake, or difficulty swallowing necessary medications;
 - > Severe aspiration; or mild aspiration in elderly patients or in patients who have compromised cardiopulmonary function; or
 - > Patients for whom long-term swallowing disorders are likely, including those anticipated to receive large fields of high-dose radiation to the mucosa and adjacent connective tissues. However, consideration of other risk factors for swallowing dysfunction must be taken into account as well.
- To maintain swallowing function during and following treatment (eg, radiation), patients who may have feeding tube placement should be encouraged to intake orally if they can swallow without aspiration or any other compromises. Alterations in swallowing function can occur long after treatment (especially after radiation-based treatment) and should be monitored for the lifetime of the patient.

¹Ehrsson YT, Langius-Eklöf A, Laurell G. Nutritional surveillance and weight loss in head and neck cancer patients. *Support Care Cancer* 2012;20:757-765.

²Locher JL, Bonner JA, Carroll WR, et al. Prophylactic percutaneous endoscopic gastrostomy tube placement in treatment of head and neck cancer: a comprehensive review and call for evidence-based medicine. *JPEN J Parenter Enteral Nutr* 2011;35:365-374.

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based treatments and should receive dietary counseling before treatment. Dysphagia, odynophagia, xerostomia, and dysgeusia are common complications contributing to nutrition problems.^{1,2,4-10} Surgery can lead to functional impairment regarding chewing and swallowing; chemotherapy is often associated with oral mucositis, nausea, and vomiting.¹

Patients with head and neck cancers who have had significant weight loss (>10% ideal body weight) clearly need nutritional evaluation and close monitoring of their weight to prevent further loss.^{4,11} Therefore, patients should receive nutritional evaluation before and after treatment to assess the need for interventions (eg, enteral support via feeding tubes).^{12,13} Some patients may require ongoing follow-up if they have chronic nutritional problems. Patients are also at risk for problems with speech. Treatment and/or the progression of their disease may cause deterioration in their ability to speak and/or swallow.⁶ Patients have reported that swallowing disorders negatively

affect their quality of life.⁹ Evaluation by a speech-language/swallowing specialist can help mitigate potential problems, including rehabilitation of speech in patients after total laryngectomy (eg, esophageal speech, tracheoesophageal puncture).¹⁴⁻¹⁶

Progress in radiation and surgical techniques has led to a decrease in the local side effects associated with treatment. For example, intensity-modulated radiation therapy maintains tumor control while decreasing radiation dosing to sites not at risk for cancer involvement, and has been shown to decrease dry mouth after treatment.¹⁷ Minimally invasive surgical technology (endoscopes, robots, lasers) facilitates complete removal of primary aerodigestive tract tumors, which can be accessed entirely through the mouth under anesthesia.¹⁸⁻²² When applicable, these surgical techniques result in fewer tracheotomies, shorter postsurgical hospital days, and more rapid resumption of swallowing than conventional surgical approaches.

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Although clinically significant esophageal constriction or stricture is infrequent after treatment with modern radiation techniques, it nonetheless can occur, particularly in patients with primary tumors of the hypopharynx. When esophageal constriction or stricture is present, esophageal dilation can alleviate related dysphagia. In rare cases of complete esophageal obstruction, an anterograde/retrograde approach may be warranted, and referral to a center with this expertise should be strongly considered.

Feeding Tubes

The NCCN Head and Neck Panel agrees that reactive feeding tube placement is appropriate in selected patients with head and neck cancers.^{1,13} However, the panel had varying opinions regarding the indications for prophylactic tube placement, although this is commonly performed if high-risk patients will be receiving intense multimodality therapy (eg, concurrent chemoradiation) that is anticipated to cause severe swallowing problems.^{1,9,11} The NCCN Guidelines provide recommendations for prophylactic tube placement, which should be strongly considered in high-risk patients (eg, those with severe pretreatment weight loss, ongoing dehydration or dysphagia, significant comorbidities, severe aspiration, anticipated posttreatment problems) (see NUTR-A, pages 919 and 920). The NCCN Guidelines do not recommend prophylactic tube placement in lower-risk patients (eg, those without significant pretreatment weight loss, significant aspiration, or severe dysphagia), although these patients must carefully monitor their weight.

Percutaneous endoscopic gastrostomy (PEG) tube feeding is useful for patients with swallowing disorders and those who need prolonged nutritional support.^{23–25} The amount of weight loss is significantly reduced in patients who undergo prophylactic PEG tube placement; however, complications may occur.^{1,26–28} PEG tubes can lead to infection, aspiration pneumonia, and decreased quality of life.^{29,30} Although patients prefer PEG over nasogastric tubes, they can become dependent on PEG tubes.^{26,27,31,32} More-advanced disease, altered fractionation, and concurrent chemoradiation are associated with a greater dependence on PEG tubes in patients with oropharyngeal cancer.³² A recent analysis among patients with swallowing disturbances indicates that

mortality rates and pneumonia are similar between the different types of feeding tubes (eg, PEG vs nasogastric tubes); the authors reported that PEG tube feeding seemed to be more effective and as safe as nasogastric tube feeding.²³ However, for patients with head and neck cancer, which is the optimal type of feeding tube is unclear.³³

Conclusions

These NCCN Guidelines Insights focus on nutrition and supportive care for patients with head and neck cancers. Multidisciplinary evaluation is integral to minimizing or decreasing weight loss and speaking and/or swallowing disturbances, and should involve a registered dietitian and a speech-language/swallowing therapist. The NCCN Guidelines provide recommendations for prophylactic feeding tube placement, which should be strongly considered in high-risk patients (eg, those with severe pretreatment weight loss, ongoing dehydration or dysphagia, significant comorbidities, severe aspiration, or anticipated posttreatment problems) (see NUTR-A, pages 919 and 920). The NCCN Guidelines do not recommend prophylactic feeding tube placement in lower-risk patients (eg, those without significant pretreatment weight loss, significant airway obstruction, or severe dysphagia), although these patients must carefully monitor their weight (to view the most recent version of these guidelines, visit the NCCN Web site at NCCN.org).

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Posttest Questions

1. Prophylactic feeding tube placement should be considered in patients with head and neck cancers who are at high risk for severe weight loss.
 - a. True
 - b. False
2. Which of the following suggest that patients with head and neck cancer may be at high risk for severe weight loss?
 - a. Ongoing dehydration or dysphagia
 - b. Treatment with concurrent chemoradiation
 - c. Severe aspiration
 - d. All of the above
 - e. None of the above
3. After total laryngectomy, evaluation by a speech language/swallowing specialist can help patients to rehabilitate their speech.
 - a. True
 - b. False

