

# Managing Postoperative Delirium in Patients Receiving Head and Neck Surgery: An Educational Overview

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**BACKGROUND:** Postoperative delirium in patients receiving head and neck surgery is a pressing concern, affecting morbidity, mortality, and healthcare costs. With an aging population and about 65,000 new head and neck cancer diagnoses per year in the United States, surgery remains a primary treatment modality, regardless of age.

**OBJECTIVES:** This article offers an educational overview of postoperative delirium management in patients receiving head and neck surgery, summarizing incidence, etiology, pathophysiology, diagnostic tests, treatment, complications, and risk factors.

**METHODS:** A narrative literature review of articles published in the past 10 years was conducted to consolidate information on postoperative delirium in patients receiving head and neck surgery.

**FINDINGS:** Postoperative delirium is characterized by acute, fluctuating cognitive dysfunction within 30 days after surgery, with incidence ranging from 11% to 26%. Pathophysiology is multifactorial, and pharmacologic options are limited because of side effects and varying effectiveness. Nonpharmacologic management focuses on addressing underlying causes and early mobilization. Reducing postoperative delirium risk necessitates interprofessional, systemwide collaboration.

## KEYWORDS

delirium; surgical procedures; risk factors; otorhinolaryngologic; patient education

## DIGITAL OBJECT IDENTIFIER

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**IN THE UNITED STATES, HEAD AND NECK MALIGNANCIES** account for about 4% of all malignancies (Siegel et al., 2021), with an estimated 65,000 new cases diagnosed annually (Pfister et al., 2020). According to the U.S. Census Bureau, the population aged older than 80 years is expected to increase from 9.3 million to 19.5 million by 2030, signifying an aging population requiring treatment for head and neck cancer (Yang et al., 2014). Regardless of age, surgery remains a fundamental treatment modality for head and neck cancer (Jelinek et al., 2018).

In the context of head and neck surgeries, radical neck dissection is performed to address advanced malignancies with potential or proven lymphatic spread. When extensive tissue removal is required, reconstructive techniques such as flap surgery are often implemented to repair the resulting defects and maintain functionality (Devaraja, 2024). In addition, a tracheostomy may be indicated to safeguard the patient's airway, particularly if postoperative swelling or the tumor's location affects breathing (Devaraja, 2024). Enteral feeding devices, such as gastrostomy tubes, are sometimes placed to provide nutritional support when oral intake is temporarily or permanently disrupted because of surgical treatment (Devaraja, 2024).

Postoperative delirium, prevalent among older adults, affects 12%–15% of patients aged older than 75–80 years (Yang et al., 2014). In the United States, about 2.6 million adults aged 65 years or older develop delirium annually, incurring about \$164 billion in healthcare costs (Azhar et al., 2022). Delirium significantly affects morbidity, mortality, length of hospital stay, and healthcare expenses (Oh et al., 2017). Research suggests a postoperative delirium incidence in patients receiving head and neck surgery ranging from 11% to 26% (Kim et al., 2022). Delirium manifests as acute cognitive dysfunction within 30 days of surgery, typically within the initial 2–5 days of the procedure (Jin et al., 2020).

## Purpose and Methods

This article provides an overview of postoperative delirium in head and neck surgery, addressing etiology, risk factors, pathophysiology, diagnosis, current treatments (including pharmacologic and nonpharmacologic treatments), prognosis, and nursing interventions. The PubMed<sup>®</sup>, CINAHL<sup>®</sup>, and MD Anderson Cancer Center library catalog databases were used to search for relevant articles. The following search terms were used: *head and neck surgery*, *postoperative complications*, *postoperative delirium*, *older adults*, and *nursing intervention preventing postoperative delirium*. From the initial literature search, 79 articles were found. Overall, 47 articles were excluded based on (a) lack of focus on postoperative delirium in patients receiving head and