

# **On frailty, geriatric assessment and clinical outcomes in patients with head and neck cancer**

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## **Samenvatting**

The incidence of cancer, including head and neck cancer, has significantly increased over the past decades, largely due to the aging population. Head and neck cancer, typically squamous cell carcinomas of the oral cavity, pharynx, and larynx, is showing rising incidence across all age groups. Curative treatment ranges from surgery to (chemo)radiotherapy and is often multimodal. Decision-making often considers chronological age rather than biological age. Increased vulnerability, or frailty, is often poorly recognized by oncologists. This work reveals that frailty is more common among patients with head and neck cancer compared to those with other solid tumors, as well as greater cognitive issues, poorer mobility, and a lower quality of life. In patients with complex skin malignancies in the head and neck region, frailty, prolonged surgery duration, and the use of general anesthesia are associated with increased postoperative complications. Although frailty is strongly linked to postoperative complications after head and neck cancer surgery, it is not associated with increased radiotoxicity during and after treatment. Patients identified as frail experience a decline in quality of life and functioning both in the short and long term. In a geriatric assessment, abnormalities across all domains are related to a decline in quality of life, but the cumulative number of deficient domains is most strongly associated with poorer quality of life. Vulnerable patients exhibit poorer response to quality of life questionnaires, which may increase the risk of bias in studies investigating frail patients and lead to an underestimation of actual differences.