

# Interdisciplinary “fast track” evaluation: impact of optimizing diagnostic workup and reducing of time to treatment in head and neck cancer and impact on outcome

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**Background:** The rapid start of therapy is crucial for the prognosis of head and neck tumor patients. Studies have shown that by shortening the time between diagnosis and therapy initiation, survival and functional outcome can be significantly improved. In February 2020 a new concept of multidisciplinary work up of head and neck cancer patients was implemented in the University Hospital Zurich, Head and Neck Tumor Centre. The aim of the concept was to optimize the diagnostic work up and staging process in order to include all the necessary steps within three subsequent days including the interdisciplinary tumor board recommendation for the individual therapy. Furthermore we aimed to reduce professional bias in therapy decisions by interdisciplinary evaluation of patients at first consultation.

**Aim of the project:** We aimed to prove shortened time between diagnosis and start of therapy as well as increased efficiency in the pre-inpatient clarification. Additionally we evaluated whether the new concept can save costs.

**Methods:** We included all primary tumor cases of the Head and Neck registered in the University Hospital Zurich, Zurich Switzerland, from 2019 and 2020 in our study. The patient cohort from 2019 (before introduction of the new clarification approach) was compared with the cohort after the start of the intake consultation in 2020.

**Results:** 327 Patients with HNSCC treated in curative intent either surgically or radiotherapeutically at the University Hospital Zurich, Head and Neck Tumor Centre, were included in the study. The time-to-treatment interval was significantly lower in the fast track work up cohort than the conventional work up cohort. Total diagnostic costs were comparable in the 2 cohorts.

**Discussion:** By increasing the efficiency of diagnostic workup, we save time, avoid redundancies, save costs (infrastructure, consultations), detect potential risk factors early on (delirium, malnutrition, social situation) and, last but not least, increase patient satisfaction.

Conventional Workup (2019)	Optimized Workup: Fast-Track, Multidisciplinary, Integrated Care Program (2020)
<ul style="list-style-type: none"> <li>Separate evaluations by consultant ENT/HN surgeon, a consultant maxillofacial/HN surgeon and sometimes a consultant HN radiation oncologist</li> <li>Imaging days later by colleagues in neuroradiology or nuclear medicine</li> <li>Staging of oropharyngeal, hypopharyngeal and laryngeal tumors as well as tumors in the oral cavity including rigid laryngopharyngoscopy and biopsy under general anesthesia</li> <li>Case discussion in the following multidisciplinary tumor board meeting</li> <li>Further diagnostic steps including dental evaluation etc.</li> </ul>	<p>Day 1 (first consultation):</p> <ul style="list-style-type: none"> <li>Consultation and screening by a nurse</li> <li>Joint consultation by consultant ENT/HN surgeon, consultant maxillofacial/HN surgeon and consultant HN radiation oncologist</li> <li>Clinical evaluation and transnasal video endoscopy</li> <li>Imaging</li> <li>Fine needle aspiration cytology if indicated</li> <li>Consultation anesthetist and blood patient management</li> </ul> <p>Day 2</p> <ul style="list-style-type: none"> <li>Stationary entry for endoscopic tumor evaluation (panendoscopy) and biopsy under general anesthesia</li> </ul> <p>Day 3</p> <ul style="list-style-type: none"> <li>Discussion and establishing a treatment plan at the multidisciplinary tumor board meeting</li> <li>Consultation and screening by a dietician, a speech and swallow therapist and if radiation therapy is recommended a dentist</li> </ul>

