

# Audit on Chest Imaging for Local-regional Advanced Head and Neck Squamous Cell Carcinoma

PW Kwok, WYW Tin, Y Tung, FCS Wong

Department of Clinical Oncology, Tuen Mun Hospital, Hong Kong

Correspondent: Dr PW Kwok [kwokpw@ha.org.hk](mailto:kwokpw@ha.org.hk)

## Introduction

Chest imaging is essential for screening distant metastases or concomitant lung cancer in patients with local-regional advanced head and neck squamous cell carcinoma (HNSCC).<sup>1,2</sup> Current guidelines recommend either chest CT or PET-CT to be performed in high-risk tumours (T3-4 or node positive disease).<sup>3-5</sup>

## Objective

To assess the utilization of chest imaging (chest CT or PET-CT) for patients with newly diagnosed local-regional advanced HNSCC (T3-4 and/or node-positive) who were presented in the Department of Clinical Oncology in Tuen Mun Hospital, Hong Kong.

## Materials and Methods

We retrospectively reviewed the records of all newly diagnosed T3-4 or node positive HNSCC patients who had received curative-intent treatment (either with surgery or radiotherapy) and were presented to our department from January 1, 2023, to December 31, 2023. Patients with nasopharyngeal cancer, salivary gland tumours, early-stage disease (T1N0 or T2N0), and those planned for palliative treatment were excluded.

The following audit standard is adopted:

- *Chest imaging (chest CT or PET-CT) should be performed for local-regional advanced HNSCC (i.e. T3-T4 and/or  $\geq$ N1)*
- *For cT3-T4 and/or  $\geq$ N1 patients, chest imaging should be performed within 3 months before curative-intent treatment (i.e. surgery or curative radiotherapy)*
- *For cT1-2N0 disease but pT3-4 and/or node positive disease, chest imaging should be performed within 3 months after surgery.*

## Results

A total of 52 patients were included in the audit. Thirty-seven (71%) patients had T3 disease, and 35 (67%) had node positive disease. Systemic imaging (chest CT or PET-CT) was performed in 37 (71%) patients, with the majority (95%) undergoing PET-CT.

Thirty-seven patients (71%) had adequate chest imaging performed.

Among the 15 patients (29%) who did not have adequate chest imaging, 13 (87%) had suspected T3-4 and/or node positive features before their curative-intent treatment. Two (13%) were found to be local-regionally advanced only after surgery, but both did not receive chest imaging within 3 months after operation.

Among patients who did not receive pre-treatment thoracic imaging, 2 (13%) were subsequently found to have lung metastases on the next axial imaging (6.8 months and 1.4 months after surgery respectively).

	n
<b>Eligible patients (T3-4 and/or N1-3)</b>	<b>52</b>
<b>Adequate chest imaging performed</b>	<b>37</b>
Staged with PET-CT	35
Staged with chest CT	2
<b>Inadequate chest imaging performed</b>	<b>15</b>
Staged by CXR	12
Lung metastases subsequently found	2

## Conclusion

This audit highlights the need to improve the adequacy of systemic staging for patients with local-regional advanced HNSCC.

It is recommended to raise awareness among oncologists and surgeons. Following this audit, we have liaised with Department of Radiology to ensure a fast-track referral pathway for thoracic CT is available for these patients.

A re-audit is planned in the first half of 2025 following remedial actions.