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Clinical Commissioning Policy

Pembrolizumab in combination with dabrafenib and trametinib for patients with BRAF mutated anaplastic thyroid cancer (Adults) [2418]

Summary

Pembrolizumab in combination with dabrafenib and trametinib is not recommended to be available as a routine commissioning treatment option for adults with BRAF mutated anaplastic thyroid cancer within the criteria set out in this document.

The policy is restricted to certain age groups as there is insufficient evidence to confirm safety.

Committee discussion

Clinical Panel considered the evidence base and the recommendation was made to progress the policy. Please see Clinical Panel reports for full details of Clinical Panel's discussion

The Clinical Priorities Advisory Group committee papers can be accessed here: Clinical Commissioning Policy: Pembrolizumab in combination with dabrafenib and trametinib for patients with BRAF mutated anaplastic thyroid cancer (adults)

What we have decided

NHS England has carefully reviewed the evidence to treat BRAF mutated anaplastic thyroid cancer with pembrolizumab in combination with dabrafenib and trametinib. NHS England recognises that the published evidence identifies that, at present, there is sufficient evidence to commission this treatment. However, following the relative prioritisation process undertaken in May 2026, NHS England has concluded that, balanced against other relative priorities that were also considered during this process, Pembrolizumab in combination with dabrafenib and trametinib for patients with BRAF mutated anaplastic thyroid cancer will not be funded at this time within the resources available.

The evidence review which informs this commissioning position can be accessed here: Clinical Commissioning Policy: Pembrolizumab in combination with dabrafenib and trametinib for patients with BRAF mutated anaplastic thyroid cancer (adults)

Links and updates to other policies

This document updates the following policy:

- 2110-Clinical-commissioning-policy-dabrafenib-and-trametinib-in-the-treatment-of-patients-with-BRAF-mutated-an.pdf

This policy is linked to:

- Overview | Thyroid cancer: assessment and management | Guidance | NICE
- NHS England » Continuation of funding for systemic anti-cancer therapy following a break in treatment

Plain language summary

About anaplastic thyroid cancer:

- Anaplastic thyroid cancer (ATC) is a rare and aggressive form of thyroid cancer. ATC can arise spontaneously, however more often it arises from pre-existing thyroid tumours. ATC usually presents at an advanced stage or as an emergency as symptoms, such as a neck mass, dysphagia (difficulty swallowing), dysphonia (difficulty controlling the voice), hoarseness and shortness of breath, are only evident once the tumour is a significant size and compressing on local, vital structures. ATC predominantly affects older patients and therefore, patients often present with multiple comorbidities and are unfit for treatment. As a result, ATC has a poor prognosis with median survival being only 3.16 months (Lin et al 2019).

About current treatment:

Patients diagnosed with ATC are referred to a specialist thyroid cancer multidisciplinary team. As ATC is usually diagnosed at a late stage and tumours are close to vital structures, ATC is rarely operable. Treatment for ATC is therefore most commonly delivered by a thyroid oncologist. A small number of patients may be suitable for palliative chemotherapy or radiotherapy to help them with symptoms or limit disease progression. However, the benefit for patients undergoing these treatments is marginal.

For ATCs that carry a BRAF mutation, targeted therapies can be used. The introduction of dual therapy with dabrafenib and trametinib has significantly improved ATC prognosis. However, patients eventually develop resistance to this treatment combination leading to disease progression.

About pembrolizumab:

Pembrolizumab is a monoclonal antibody (a type of biological medicine). Pembrolizumab works by stopping ATC's ability to evade the host's immune system. This slows uncontrolled cell division and tumour growth. Pembrolizumab is typically administered as an infusion once every 3 to 6 weeks and is given alongside dabrafenib and trametinib, rather than alone.

Emerging evidence shows that pembrolizumab, in combination with dabrafenib and trametinib, improves short-term survival, compared to dual therapy alone (Hamidi et al 2024, Iver et al 2018). Guidelines from FAST (Facilitating Anaplastic Thyroid Cancer Specialized Treatment) group in the US support the use of pembrolizumab, however there are no current guidelines or consensus statements into the management of ATC in the UK (Hamidi et al 2024).

Currently, pembrolizumab has a UK license for the treatment of a range of cancers, including but not limited to, melanoma, non-small cell lung cancer, lymphoma, renal cell carcinoma and oesophageal cancer. It also has a tumour agnostic license (license for specific molecular characteristics regardless of anatomical origin)) for cancers with high microsatellite instability (cancers with predisposition to mutations). Given the rarity of ATC, it is highly unlikely that a specific licence application will ever be made for this indication. The use of pembrolizumab in combination with dabrafenib and trametinib for this indication is therefore off-label.

Epidemiology and needs assessment

Thyroid cancer accounts for 1% of all new cancer cases in the UK (Cancer Research, 2024). International evidence suggests that ATC accounts for 1-2% of thyroid cancer, resulting in an incidence of around 1-2 per million of the population (Molinaro et al, 2017; Lin et al 2019). This amounts to approximately 100 patients in England per year. Around 40% of these patients will harbour a BRAF mutation, resulting in approximately 20-30 new cases of BRAF-mutated ATC who are fit for treatment annually in England (Pavlidis et al 2023).

Epidemiology from the current NHS England clinical commissioning policy for dual therapy for patients with BRAF-mutated anaplastic thyroid cancer, along with clinical consensus, suggests that approximately 20 patients per year would be eligible for treatment under this updated policy. The intended age group for this policy proposition is adults as this condition does not affect children.

Policy review date

This document will be reviewed when information is received which indicates that the policy requires revision. If a review is needed due to a new evidence base then a new Preliminary Policy Proposal needs to be submitted by contacting england.CET@nhs.net.

Our policies provide access on the basis that the prices of therapies will be at or below the prices and commercial terms submitted for consideration at the time evaluated. NHS England reserves the right to review policies where the supplier of an intervention is no longer willing to supply the treatment to the NHS at or below this price and to review policies where the supplier is unable or unwilling to match price reductions in alternative therapies.

Equality statement

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and

- Given regard to the need to reduce inequalities between patients in access to, and outcomes from healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.

Definitions

Anaplastic	A term used to describe cancer cells that divide rapidly and have little or no resemblance to normal cells
Cancer	Abnormal cells that divide in an uncontrolled way.
Chemotherapy	A cancer treatment where medicine is used to kill cancer cells. The most common types of chemotherapy are either given into a vein (intravenous) or as chemotherapy tablets (oral chemotherapy)
Comorbidity	When a patient has more than one medical condition at the same time. For example, a patient has both diabetes and high blood pressure.
Prognosis	The likely outcome or course of a disease; the chance of recovery or recurrence
Monoclonal antibody	An antibody made by the immune system that is used to fight conditions that attack the immune system (e.g. cancer). Monoclonal antibodies can be made in the laboratory setting to treat or prevent disease in patients mainly with cancer, autoimmune conditions or infectious diseases.
Mutation	A change or alternation to genetic material. Mutations can result in altered function of the gene which can be harmful or beneficial. In cancer the mutations are usually harmful
Palliative	Treatment that is given to relieve symptoms, rather than targeting the cause of the condition.
Radiotherapy	A cancer treatment where radiation is used to kill cancer cells
Unresectable	A situation where the tumour or cancer is not able to be removed using surgery

References

Cancer Research UK: Thyroid Cancer Incidence Statistics. Available at: https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/thyroid-cancer/incidence#heading-Zero [Accessed 9th January 2025]

Hamidi, S., Dadu, R., et al. (2024) 'Initial management of BRAF V600E-Variant Anaplastic Thyroid Cancer: the FAST Multidisciplinary Group Consensus Statement ,' JAMA Oncology [Preprint]. https://doi.org/10.1001/jamaoncol.2024.2133.

Hamidi, S., Iyer, PC., Dadu, R. *et al*. 'Checkpoint inhibition in addition to Dabrafenib/Trametinib for BRAFV600E-Mutated anaplastic thyroid carcinoma.' *Thyroid*, 34 (3): pp 336-346 (2024). https://doi.org/10.1089/thy.2023.0573.

Iyer, PC., Dadu, R., Monroe. et al. Salvage pembrolizumab added to kinase inhibitor therapy for the treatment of anaplastic thyroid carcinoma,' Journal for ImmunoTherapy of Cancer, 6 (2018) doi: 10.1186/s40425-018-0378-y

Lin, B., Ma, H., Ma, M. *et al.* The incidence and survival analysis for anaplastic thyroid cancer: a SEER database analysis. *Am J Transl Res* 11 (9): 5888-5896 (2019).

Molinaro, E., Romei, C., Biagini, A. *et al.* Anaplastic thyroid carcinoma: from clinicopathology to genetics and advanced therapies. *Nat Rev Endocrinol* 13, 644–660 (2017). https://doi.org/10.1038/nrendo.2017.76

Pavlidis, ET., Galanis, IN., Pavlidis, TE. Update on current diagnosis and management of anaplastic thyroid carcinoma. *World J Clin Oncol*. 14 (12): 570-583 (2023) doi: 10.5306/wjco.v14.i12.570.