touch™ ONCOLOGY

Applying patient and disease characteristics to guide R/M NPC treatment

Practice aid for nasopharyngeal carcinoma

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NCCN guideline recommendations

First-line treatment for recurrent, unresectable, oligometastatic or metastatic disease (with no surgery or radiotherapy option)[1]

Preferred regimen

Cisplatin/gemcitabine + toripalimab (category 1)

Other recommended regimens

Combination regimens

- Cisplatin/gemcitabine (category 1)
- Cisplatin/gemcitabine + other PD-L1 inhibitor* (category 2A)
- Cisplatin/5-FU (category 2A)
- Cisplatin or carboplatin/docetaxel or paclitaxel (category 2A)
- Carboplatin/cetuximab (category 2A)
- Gemcitabine/carboplatin (category 2A)
- Cisplatin or carboplatin/gemcitabine + penpulimab (non-keratinizing disease [category 2B])
- Cisplatin/gemcitabine + tislelizumab (category 2B)

Single-agent regimens (all category 2A)

- Cisplatin
- Carboplatin
- Paclitaxel
- Docetaxel
- 5-FU
- Methotrexate
- Gemcitabine
- Capecitabine

Absolute contraindications to cisplatin[2,3]

- Low performance status (ECOG PS score ≥3)
- Renal dysfunction (CCR <50 mL/min)
- Otologic disorders (pre-existing hearing loss or tinnitus grade ≥2)
- Neuropathy (grade ≥2)
- Known hypersensitivity to platinum-based therapy
- Pregnancy and lactation
- HIV/AIDS (CD4 count <200/µL)

Expert perspective[4]

Carboplatin can generally be substituted for cisplatin if the patient is not eligible for cisplatin.

*E.g. pembrolizumab or nivolumab.

NCCN guideline recommendations

Subsequent-line options for recurrent, unresectable, oligometastatic or metastatic disease (with no surgery or radiotherapy option)[1]

Preferred regimen

Toripalimab
(disease progression on/after PtChT [Category 2A])

Other recommended regimens

First-line regimens (if not previously used)

Combination regimens

- Cisplatin/gemcitabine (category 1)
- Cisplatin/gemcitabine + toripalimab (category 1)
- Cisplatin/gemcitabine + other PD-L1 inhibitor* (category 2A)
- Cisplatin or carboplatin/docetaxel or paclitaxel (category 2A)
- Cisplatin or carboplatin/gemcitabine + penpulimab (non-keratinizing [category 2B])
- Cisplatin/gemcitabine + tislelizumab (category 2B)
- Cisplatin/5-FU (category 2A)
- Carboplatin/cetuximab (category 2A)
- Gemcitabine/carboplatin (category 2A)

Single-agent regimens (all category 2A)

- Cisplatin
- Carboplatin
- Paclitaxel
- Docetaxel
- 5-FU
- Methotrexate
- Gemcitabine
- Capecitabine

Immunotherapy (all category 2B)

- Nivolumab (R/M non-keratinizing)
- Pembrolizumab (PD-L1+, R/M)
- Penpulimab (non-keratinizing, progression on/after PtChT + ≥1 other prior therapy)
- Tislelizumab

Useful in certain circumstances

- Pembrolizumab for TMB-H tumours (≥10 mutations/Mb [category 2A])

*E.g. pembrolizumab or nivolumab.

Considerations for treatment selection

EBV/Keratinizing disease status

Treatments recommended for EBV-positive (non-keratinizing) disease only:[1]

- Cisplatin or carboplatin/gemcitabine + penpulimab
- Nivolumab monotherapy
- Penpulimab monotherapy

Expert perspective:[4]

"Other recommended drugs generally have indications that include both EBV-positive (non-keratinizing) and EBV-negative (keratinizing), or do not require EBV characterization. While the number of EBV-negative patients in the studies was small, EBV status is not a factor that will alter my first-line treatment approach."

PD-L1 status

Treatments recommended for PD-L1+ disease only:[1]

- Pembrolizumab monotherapy

If considering pembrolizumab, recommend TMB and CPS testing in line with NCCN guidance.[1]

Expert perspective:[4]

"[PD-L1 testing] is not something that has a similar robustness as it has in non-nasopharyngeal tumours."

Patients with autoimmune diseases

- Study of patients with cancer receiving ICIs (N=477) found that de novo irAEs were more frequent than flares of pre-existing autoimmune disease[5]
- Most irAEs in patients with pre-existing autoimmune diseases were mild and manageable[5]
- Collaboration between autoimmune disease specialists and oncologists should occur when patients with pre-existing autoimmune diseases are receiving ICIs[6]

Expert perspective:[4]

"Get their autoimmune disease team involved because they're going to need to be there… The benefits of an ICI in a fairly stable patient with autoimmune disease not requiring a lot of immunosuppressive therapy would far outweigh the risks."

Abbreviations and references

Abbreviations

5-FU, 5-flurouracil; CCR, creatinine clearance; CPS, combined positive score; EBV, Epstein-Barr virus; ECOG PS, Eastern Cooperative Oncology Group Performance Status; ICI, immune checkpoint inhibitor; irAE, immune-related adverse event; NCCN, National Comprehensive Cancer Network; NGS, next-generation sequencing; NPC, nasopharyngeal carcinoma; PD-L1, programmed death ligand 1; PtChT, platinum-based chemotherapy; R/M recurrent/metastatic; TMB, tumour mutation burden; TMB-H, TMB – high.

References

1. NCCN Clinical Practice Guidelines in Oncology. Head and Neck Cancers Version 5.2025 — August 12, 2025. Available at: NCCN.org (accessed 19 August 2025).
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3. Ahn M-J, et al. *Oral Oncol*. 2016;53:10–6 .
4. touchIME. Data on file. August 2025.
5. Sumimoto H, et al. *PLoS One*. 2024;19:e0306995.
6. Boland P, et al. *J Immnother Canncer*. 2020;8:e000356.