

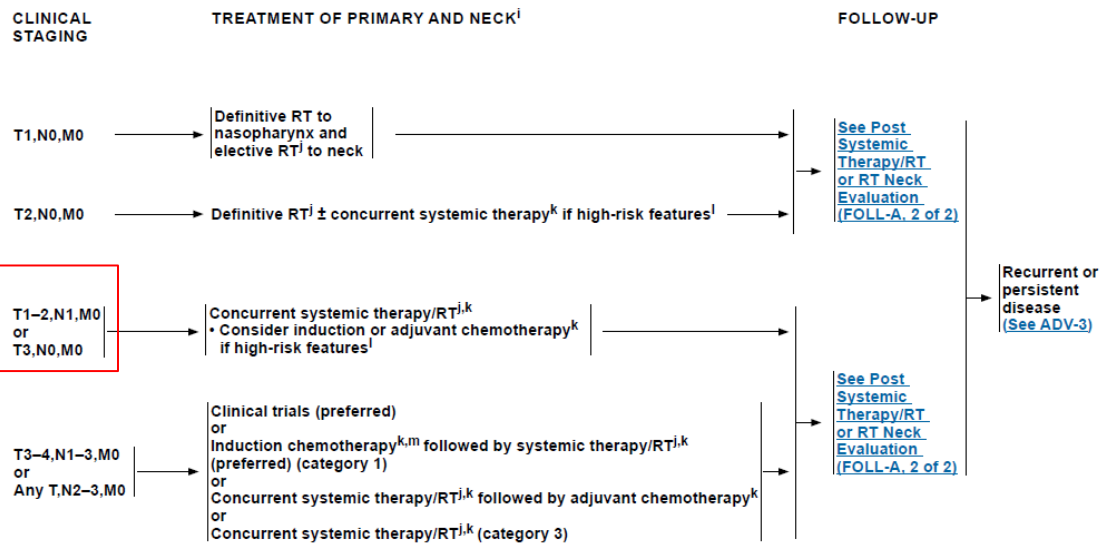
屏東榮民總醫院

鼻咽癌診療原則

2024年01月09日 第一版

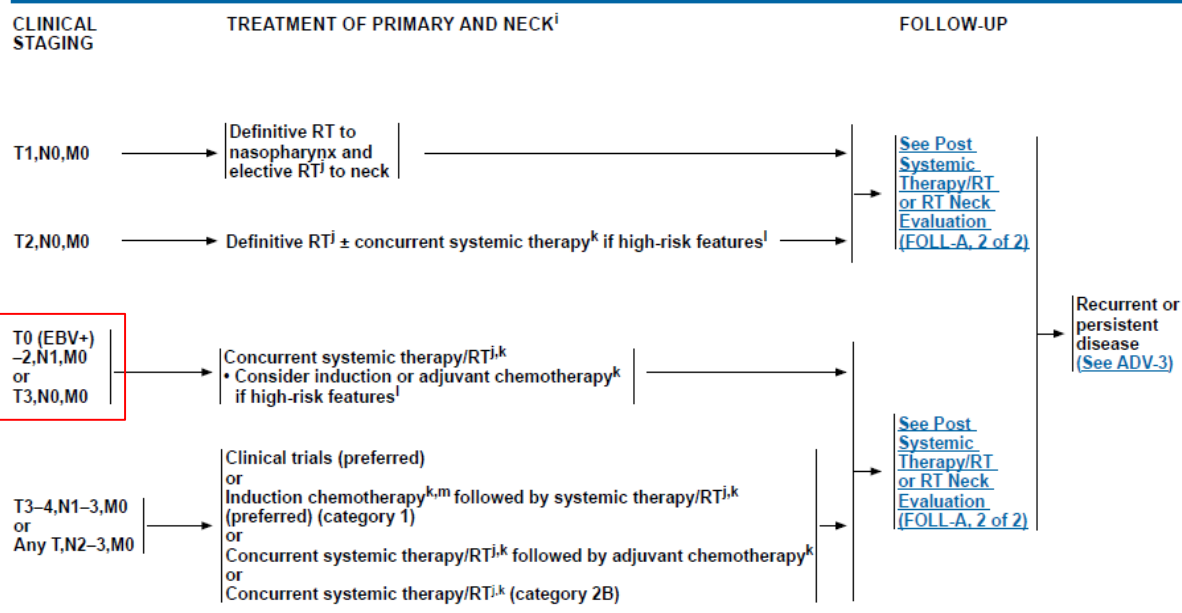
鼻咽癌醫療團隊擬訂

注意事項：這個診療原則主要作為醫師和其他保健專家診療癌症病人參考之用。假如你是一個癌症病人，直接引用這個診療原則並不恰當，只有你的醫師才能決定給你最恰當的治療。



ⁱ The recommendations are based on clinical trial data for those with EBV-associated nasopharynx cancer.
^j See Principles of Radiation Therapy (NASO-A).
^k See Systemic Therapy for Nasopharyngeal Cancers (NASO-B).
^l High risk features include bulky tumor volume, high serum EBV DNA copy number.
^m See Discussion on induction chemotherapy.

Note: All recommendations are category 2A unless otherwise indicated.
 Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is encouraged.



Compared 2023 to 2022
 1. T1-T2, N1, M0 or T3, N0, M0 的部分調整成 T0(EBV+)- T2, N1, M0 or T3, N0, M0 做 CCRT, high risk 加做 IC 或 adjuvant CT
 2. 放射治療建議時間由 6-7 週改為 7-8 週

Nasopharyngeal cancer

Clinical staging AJCC 8th

Nasopharyngeal cancer TNM staging AJCC UICC 8th edition

Primary tumor (T)	
T category	T criteria
TX	Primary tumor cannot be assessed
T0	No tumor identified, but EBV-positive cervical node(s) involvement
Tis	Tumor <i>in situ</i>
T1	Tumor confined to nasopharynx, or extension to oropharynx and/or nasal cavity without parapharyngeal involvement
T2	Tumor with extension to parapharyngeal space, and/or adjacent soft tissue involvement (medial pterygoid, lateral pterygoid, prevertebral muscles)
T3	Tumor with infiltration of bony structures at skull base, cervical vertebra, pterygoid structures, and/or paranasal sinuses
T4	Tumor with intracranial extension, involvement of cranial nerves, hypopharynx, orbit, parotid gland, and/or extensive soft tissue infiltration beyond the lateral surface of the lateral pterygoid muscle
Regional lymph nodes (N)	
N category	N criteria
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Unilateral metastasis in cervical lymph node(s) and/or unilateral or bilateral metastasis in retropharyngeal lymph node(s), 6 cm or smaller in greatest dimension, above the caudal border of cricoid cartilage
N2	Bilateral metastasis in cervical lymph node(s), 6 cm or smaller in greatest dimension, above the caudal border of cricoid cartilage
N3	Unilateral or bilateral metastasis in cervical lymph node(s), larger than 6 cm in greatest dimension, and/or extension below the caudal border of cricoid cartilage
Distant metastasis (M)	
M category	M criteria
M0	No distant metastasis
M1	Distant metastasis

Prognostic stage groups			
When T is...	And N is...	And M is...	Then the stage group is...
Tis	N0	M0	0
T1	N0	M0	I
T1, T0	N1	M0	II
T2	N0	M0	II
T2	N1	M0	II
T1, T0	N2	M0	III
T2	N2	M0	III
T3	N0	M0	III
T3	N1	M0	III
T3	N2	M0	III
T4	N0	M0	IVA
T4	N1	M0	IVA
T4	N2	M0	IVA
Any T	N3	M0	IVA
Any T	Any N	M1	IVB

tumor, node, metastasis; AJCC: American Joint Committee on Cancer; UICC: Union for International Cancer Control; EBV: Epstein-virus.

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Carcinoma of Nasopharynx

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WORK-UP

- History & PE & NP scopy
- NP biopsy ± Neck FNA
- Image
 - MRI* or CT* of H&N or PET/CT
 - Chest X-ray * (if PET/CT not done)
 - Bone scan * (if PET/CT not done)
 - Abd. Sono *
 - ± PET scan ± Chest CT
- EBV status: viral load, ± EB-EA/NA, ± EB-VCA IgG/IgA
- Dental evaluation*
 - Panorex ± teeth extraction
- Hearing evaluation
 - PTA, tympanogram
- Multidisciplinary consultation
(± Fertility/reproductive, smoking cessation, ophthalmologic, nutrition, speech, swallowing and endocrine evaluation if indicated)
(* 期別之相關之主要檢查)

STAGING & TREATMENT

- [cT1,N0,M0]
詳見 Page 2
- [cT2,N0,M0]
詳見 Page 2
- [cT0(EBV+)-2, N1, M0 or cT3, N0, M0]
詳見 Page 3
- [T3, N1, M0 or T4, N0-1, M0, Any T, N2-3, M0]
詳見 Page 4
- [M1]
詳見 Page 5

FOLLOW-UP

- [Post-Tx within 6 months]
 - Post-Tx baseline MRI and/or CT, EBV viral load,
 - Every 2-3 months: PE, NP scopy ± Neck Sono
- [0.5-3 years]
 - Every 3-4 months: PE, NP scopy ± EBV viral load,
 - Every 1 yr: ± EB-EA/NA ± EB-VCA IgG/IgA, MRI and/or CT, CxR, WBBS & Abd. Sono as indicated, ± TSH, free T4*
- [3-5 years] → Every 4-6 months: PE, NP scopy
- [5 years later]
 - Every 6-12 months: PE, NP scopy
(*if RT, 6-12 months)

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Clinical T1,N0,M0

Primary treatment

**Definitive RT to nasopharynx
and elective RT to neck**

→ Follow-up

Clinical T2,N0,M0

Primary treatment

**Definitive RT ± concurrent
systemic therapy if high-risk
features @**

→ Follow-up

@Bulky tumor volume, high serum EBV DNA copy number

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**Clinical T0(EBV+)-2, N1,
M0 or T3, N0, M0**

Primary treatment

**CCRT ± induction or adjuvant CT^{註1-3} if
high risk features[@]**

若只打1cycle且與後續CCRT間隔小於2weeks，視為CCRT only

Response and salvage treatment

Complete clinical
response

Follow-up

Residual disease
or clinically
suspicious residue

Surgery if
operable* #

Adjuvant CT
註3

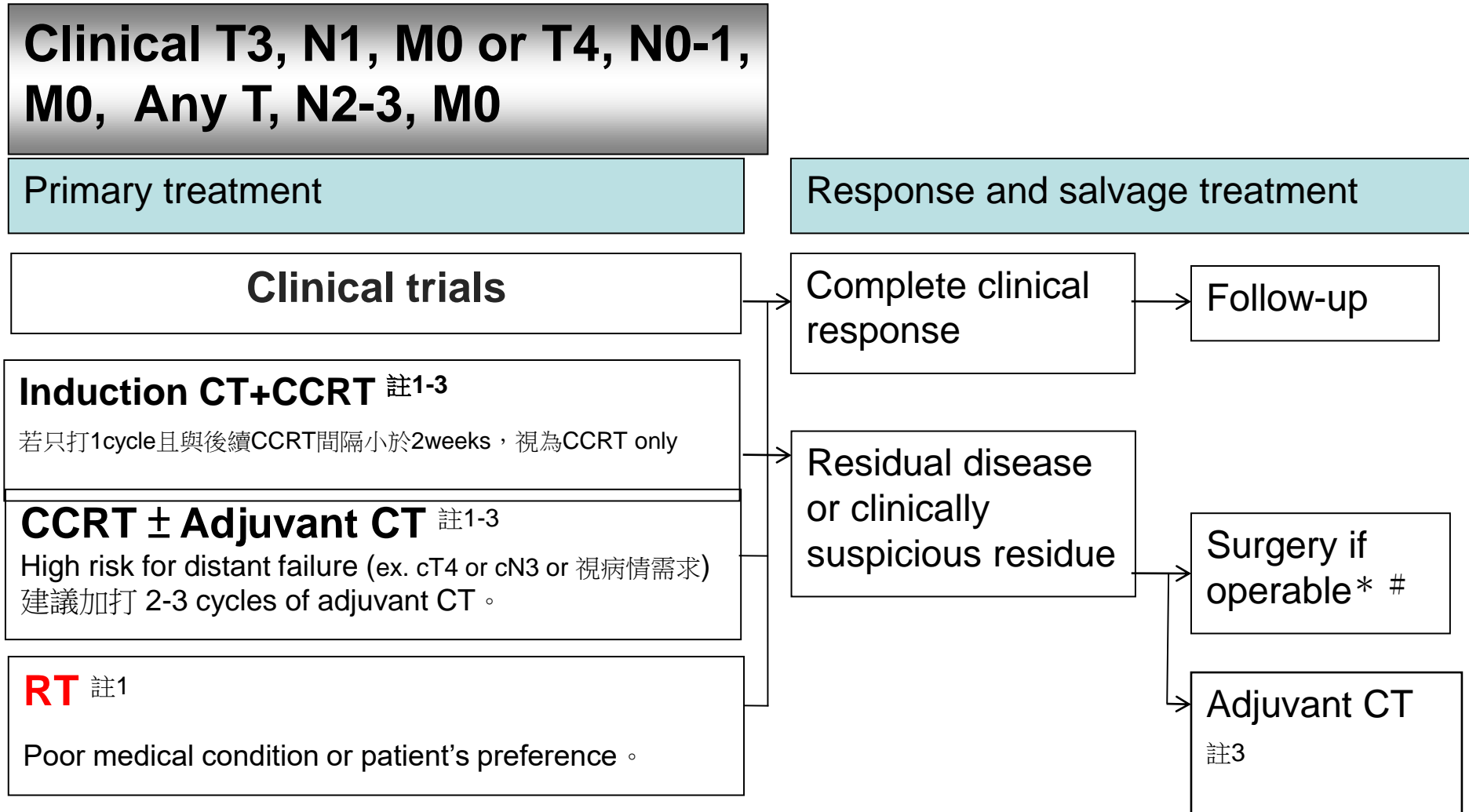
@Bulky tumor volume, high serum EBV DNA copy number

Salvage neck dissection is indicated if residual neck disease.

* Salvage nasopharyngectomy is indicated for operable residual primary tumor

Carcinoma of Nasopharynx

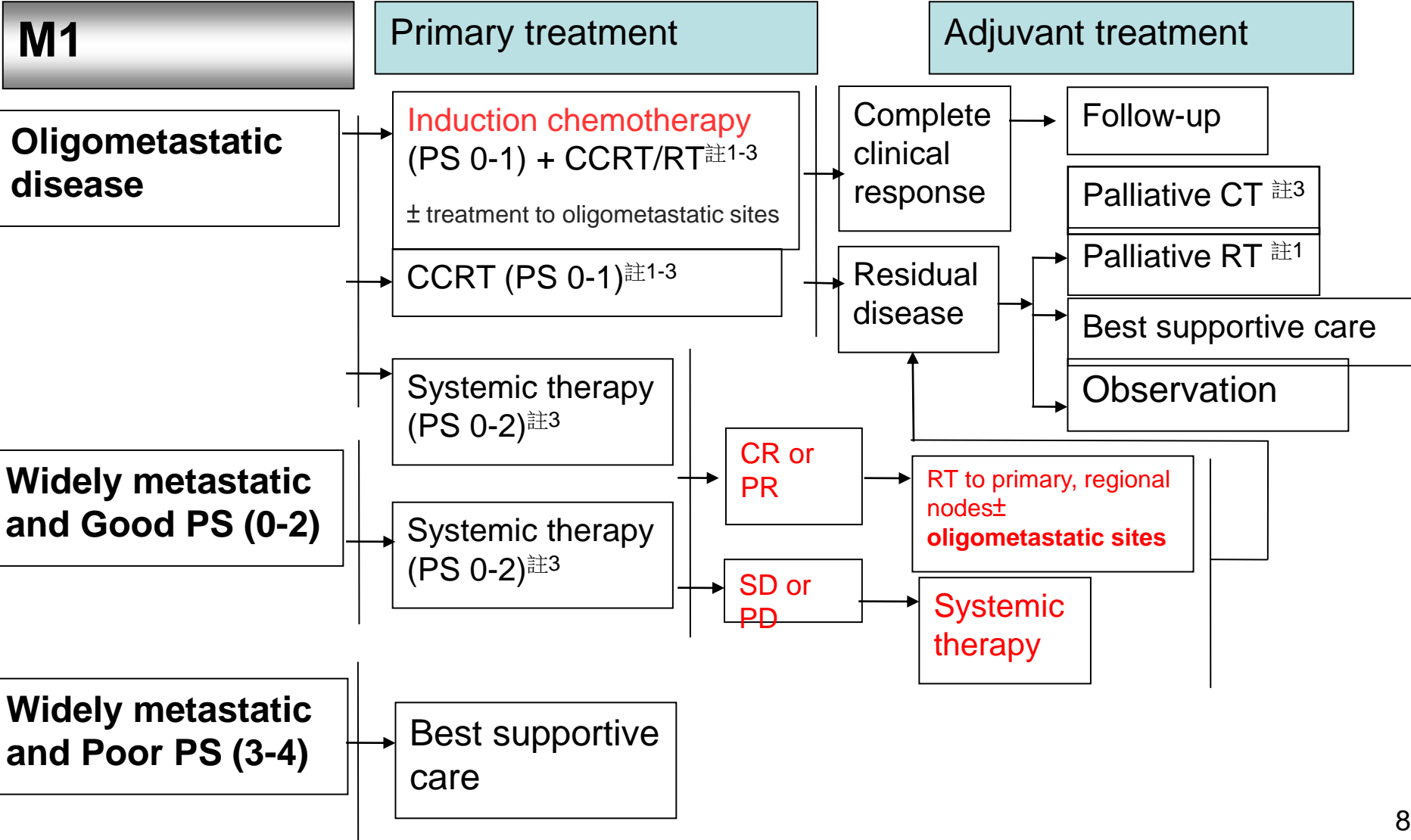
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Salvage neck dissection is indicated if residual neck disease.

* Salvage nasopharyngectomy is indicated for operable residual primary tumor

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Carcinoma of Nasopharynx

註1 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 6 (Ref. 1,5,6)

Principles of Radiotherapy

Definitive Radiotherapy

- Primary and gross adenopathy : 66 - 74 Gy (2.0-2.2 Gy/fraction)(in 7-8 weeks)
- Neck uninvolved nodal stations : 44 - 58 Gy (1.6-2.0 Gy/fractions)
- Suspicious Neck lymph nodes : 59.4 Gy (2.2 Gy/fractions) (optional)
- Adaptive radiotherapy : direct CCRT, BW change more than 3-5 kg, high initial stage etc.(optional)

CCRT or RT

- RT alone if : Old age, Impaired renal function, Poor condition

Palliative RT

- Indicated in : Relieve local symptoms, Prevent debilitation such as spinal cord compression and pathological fracture, Achieve durable loco-regional control.

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註2 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 7 (Ref. 1,5-9)

Principles of Chemotherapy

Concurrent with RT

Regimen 1: q3w CDDP ± Cetuximab + RT 註5

- Cisplatin (80-100mg/ m²) q3w during R/T
- Cetuximab(400mg/ m²) loading dose first week, then Cetuximab(250mg/ m²) maintain dose D1 + Cisplatin (80-100mg/ m²) q3w D2 during R/T

Regimen 2: Weekly CDDP ± Cetuximab + RT 註5

- Cisplatin (30-40mg/ m²) weekly during R/T
- Cetuximab(400mg/ m²) loading dose first week, and then Cisplatin (30-40mg/ m²) weekly D1 + Cetuximab(250mg/ m²) maintain dose D2 during R/T
- Carboplatin (AUC x 2mg) qw during R/T

Regimen 3: q3w Carboplatin ± Cetuximab + RT 註5

- Carboplatin (AUC x 5mg) q3w during R/T
- Cetuximab(400mg/ m²) loading dose first week, then Cetuximab(250mg/ m²) maintain dose D1 + Carboplatin (AUC x 5mg) q3w D2 during R/T

Regimen 4: Weekly Cetuximab + RT 註5

- Cetuximab(400mg/ m²) loading dose first week, then Cetuximab(250mg/ m²) maintain dose during RT

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註3 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 8 (Ref. 5-8)

Regimens of Chemotherapy

Induction or adjuvant, 建議2-3cycles

Regimen 1 : q3w G^{註5} P

- Gemcitabine (1000mg/ m²) D1, 8
- Cisplatin (80mg/ m²) D1

Regimen 2 : q3w G^{註5} Carboplatin

- Gemcitabine (1000mg/ m²) D1, 8
- Carboplatin (AUC x 5mg) D1

Regimen 3 : q3-4 weeks T + P ± F ± weekly Cetuximab^{註5}

- Taxotere(60 mg/ m²) D1 ^{註5}
- Cisplatin(60-75 mg/ m²) D1
- Fluorouracil (5-FU)(600-750mg/ m²) D2-D5
- Cetuximab (400mg/ m²) loading dose first week, then Cetuximab (250mg/ m²) maintain dose

Regimen 4 : q3-4 weeks T + Carboplatin ± F ± weekly Cetuximab^{註5}

- Taxotere(60 mg/ m²) D1 ^{註5}
- Carboplatin (AUC x 5mg) D1
- Fluorouracil (5-FU)(600-750mg/ m²) D2-D5
- Cetuximab (400mg/ m²) loading dose first week, then Cetuximab (250mg/ m²) maintain dose

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註3 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 9 (Ref. 5-12)

Regimens of Chemotherapy

Induction or adjuvant, 建議2-3cycles

Regimen 5: q3-4 weeks CDDP ± F ± weekly Cetuximab 註5

- Cisplatin(80-100mg/ m²) D1 or Cisplatin (20mg/ m²) D1-D5
- Fluorouracil (5-FU) (1000mg/ m²) D1-D5
- Cetuximab(400mg/ m²) loading dose first week, then weekly Cetuximab (250mg/ m²)

Regimen 6: q3-4 weeks Carboplatin ± F ± weekly Cetuximab 註5

- Carboplatin (AUC x 5mg) D1
- Fluorouracil (5-FU) (1000mg/ m²) D2-D5
- Cetuximab(400mg/ m²) loading dose first wk, then weekly Cetuximab (250mg/ m²)

Regimen 7: oral Fluorouracil

- Ufur cap (tegafur 100mg+uracil 224mg) 2# BID-TID
(作為取代 IV form 5-FU之替代藥物)

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註4 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 10 (Ref. 13-30)

Regimens of Chemotherapy

Recurrent or metastatic disease

Regimen 1 (First line): q3w G^{註5} ± P

- Gemcitabine (1000mg/ m²) D1, 8
- Cisplatin (80mg/ m²) D1

Regimen 2: q4w GGG^{註5} ±P

- Gemcitabine (1000mg/ m²) D1, 8, 15
- Cisplatin (50-60mg/ m²) D22

Regimen 3: q3w G^{註5} ± Carboplatin

- Gemcitabine (1000mg/ m²) D1, 8
- Carboplatin (AUC x 5mg) D1

Regimen 4: q3-4 weeks P ± F

- Cisplatin(80-100mg/ m²) D1 or Cisplatin (20mg/ m²) D1-D5
- Fluorouracil (5-FU) (600-1000 mg/m²) D2-D5

Carcinoma of Nasopharynx

註4 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 11 (Ref. 13-30)

Regimens of Chemotherapy

Recurrent or metastatic disease

Regimen 5: q3-4 weeks Carboplatin ± F

- Carboplatin (AUC x 5mg) D1
- Fluorouracil (5-FU) (1000mg/ m²) D2-D5

Regimen 6: q3-4 weeks T ± P

- Taxotere(60 mg/ m²) D1 註5
- Cisplatin(60-75 mg/ m²) D1

Regimen 7: q3-4 weeks T ± Carboplatin

- Taxotere(60 mg/ m²) D1 註5
- Carboplatin (AUC x 5mg) D1

Regimen 8: q3-4 weeks Carboplatin ± weekly Cetuximab 註5

- Carboplatin (AUC x 5mg) D1
- Cetuximab(400mg/ m²) loading dose first week, then weekly Cetuximab (250mg/ m²)

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註4 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 12 (Ref. 13-30)

Regimens of Chemotherapy

Recurrent or metastatic disease

Regimen 9: q3w G ± P + Pembrolizumab / Nivolumab(q2w) ^{31, 32, 註5}

- Gemcitabine (1000mg/ m²) D1, 8
- Cisplatin (80mg/ m²) D1
- Pembrolizumab(200mg) D1 / Nivolumab(3mg/kg) D1

Regimen 10: weekly Methotrexate

- Methotrexate (40-60mg/ m²)

Regimen 11: q3 weeks Pembrolizumab

- Pembrolizumab(200mg) D1

Regimen 12: q2 weeks Nivolumab

- Nivolumab(3mg/kg) D1

Regimen 13: weekly Cetuximab ^{註5}

- Cetuximab (400mg/ m²) loading dose first week, then Cetuximab (250mg/ m²) maintain dose

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註4 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 13 (Ref. 13-30)

Regimens of Chemotherapy

Recurrent or metastatic disease

Regimen 14: oral Fluorouracil

- Ufur cap (tegafur 100mg+uracil 224mg) 2# BID-TID
(作為取代 IV form 5-FU之替代藥物)

Regimen 15: FL

- Leucovorin (250 mg/ m²) D1
- Fluorouracil (5-FU) (2500 mg/ m²) D1

Regimen 16: P-FL

- Cisplatin (60mg/ m²) week 1, 3, 5, 7
- Fluorouracil (5-FU)(2500mg/ m²) + Leucovorin (250mg/ m²) mixed week 2, 4, 6, 8

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註5 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 14

特殊用藥健保給付規定

Taxotere

- 頭頸部癌，限局部晚期且無遠端轉移之頭頸部鱗狀細胞癌且無法手術切除者。
- 與Cisplatin 及5-FU 併用，作為放射治療前的引導治療，限使用四個療程。

Carboplatin

- 限腎功能不佳 ($CCr < 60$) 或曾作單側或以上腎切除之惡性腫瘤患者使用。

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註5 屏東榮民總醫院 臨床診療指引 Ver.1 修訂於 2024.01.09 Page 15

特殊用藥健保給付規定

Gemcitabine

限用於：

- 1.晚期或無法手術切除之非小細胞肺癌及胰臟癌病患。
- 2.晚期膀胱癌病患。
- 3.Gemcitabine與paclitaxel併用，可使用於曾經使用過anthracycline之局部復發且無法手術切除或轉移性之乳癌病患。
- 4.用於曾經使用含鉑類藥物(platinum-based) 治療後復發且間隔至少6個月之卵巢癌，作為第二線治療。
- 5.無法手術切除或晚期或復發之膽道癌(含肝內膽管)病患。

備註：頭頸癌與鼻咽癌目前無健保給付

Pembrolizumab、Nivolumab、Cetuximab

鼻咽癌目前無健保給付

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