

高雄榮民總醫院

肺癌診療原則

(非小細胞癌)

2017年05月10日第一版

肺癌醫療團隊擬訂

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。

修訂指引

- 本共識依下列參考資料修改版本
- NCCN Clinical Practice Guideline in Oncology™, NSCLC, **V.4.2017**

會議討論

上次會議：2016/05/24

本共識與上一版的差異

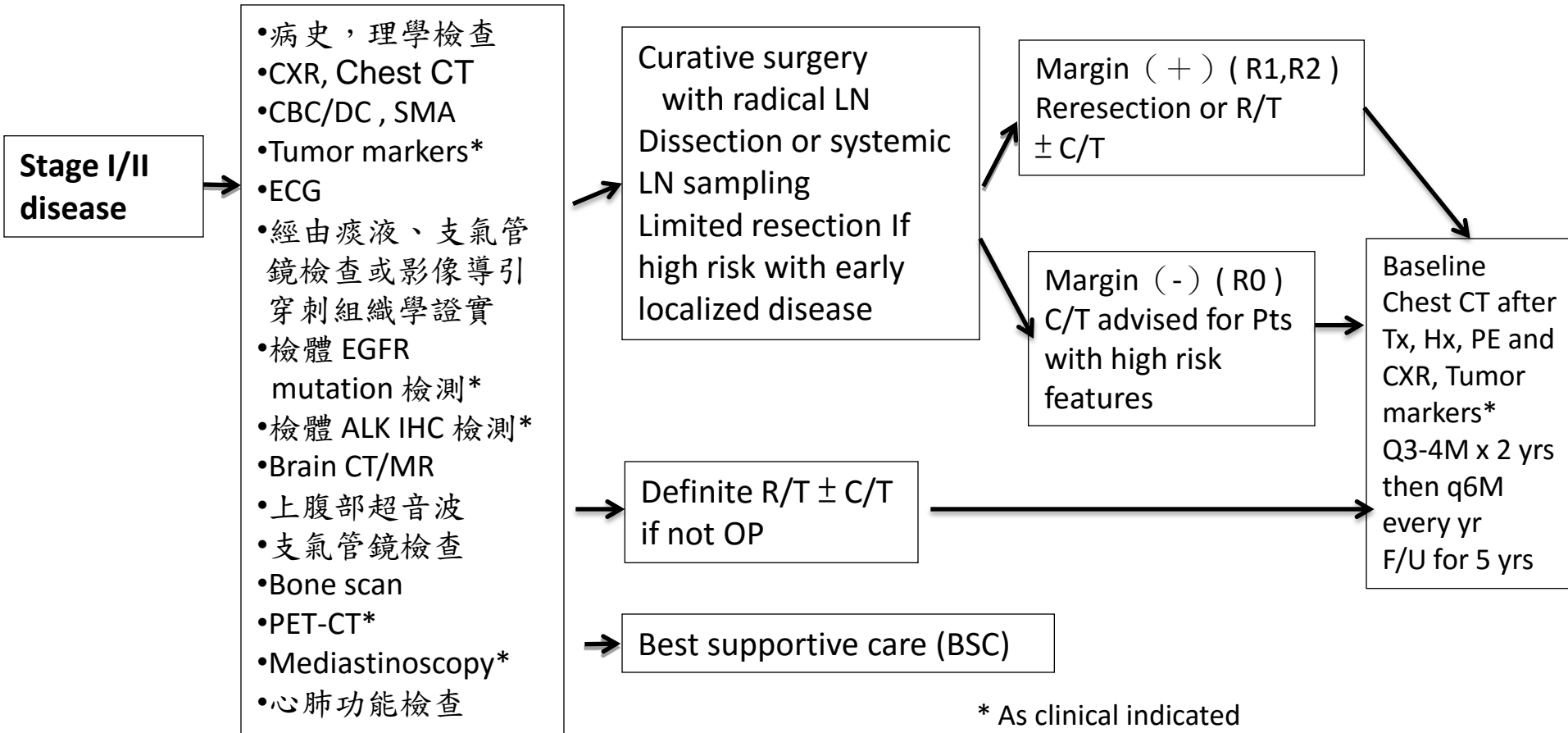
上一版	新版
<ol style="list-style-type: none">1. Stage IIIA(T1-3, N2)原為Definite CCRT、Induction C/T±R/T(p. 4)2. Stage IV M1a、M1b，ALK(+)標靶藥物原只有Crizotinib (p. 8)3. 二線及二線之後的TKI治療處方：Gefitinib、Erlotinib、Crizotinib 750mg (p. 11)	<ol style="list-style-type: none">1. Stage IIIA T1-3, N2 建議做 Curative surgery with radical LN Dissection or systemic LN sampling (p. 6)2. Stage IV M1a、M1b，新增 ALK(+)標靶藥物 Ceritinib, Alectinib (p. 8)3. 二線及二線之後的TKI治療處方：新增 Alectinib 600mg PO BID (ALK rearrangement) (p. 13)

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診斷	評估	初步治療	輔助治療	追蹤
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* As clinical indicated

§Transbronchial fine needle aspiration

¥Concurrent chemoradiotherapy

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診斷

評估

初步治療

輔助治療

追蹤

Stage IIB-III A
T3 invasion, N0-1
Resectable T4
extension, N0-1

- 病史，理學檢查
- CXR, Chest CT
- CBC/DC, SMA
- Tumor markers*
- ECG
- 經由痰液、支氣管鏡檢查或影像導引穿刺組織學證實
- 檢體 EGFR mutation 檢測*
- 檢體 ALK IHC 檢測*
- Brain CT/MR
- 上腹部超音波
- 支氣管鏡檢查
- Bone scan
- PET-CT*
- Mediastinoscopy*
- 心肺功能檢查

Stage III A
(T4, N0-1),
Unresectable

Poor PS

Curative surgery
with radical LN
Dissection or systemic
LN sampling

Margin (+) (R1, R2)
Reresection or R/T
± C/T

Margin (-) (R0)
C/T advised for
Pts with high risk
features

CCRT or C/T

Best supportive care (BSC)

Definite CCRT

Best supportive care (BSC)

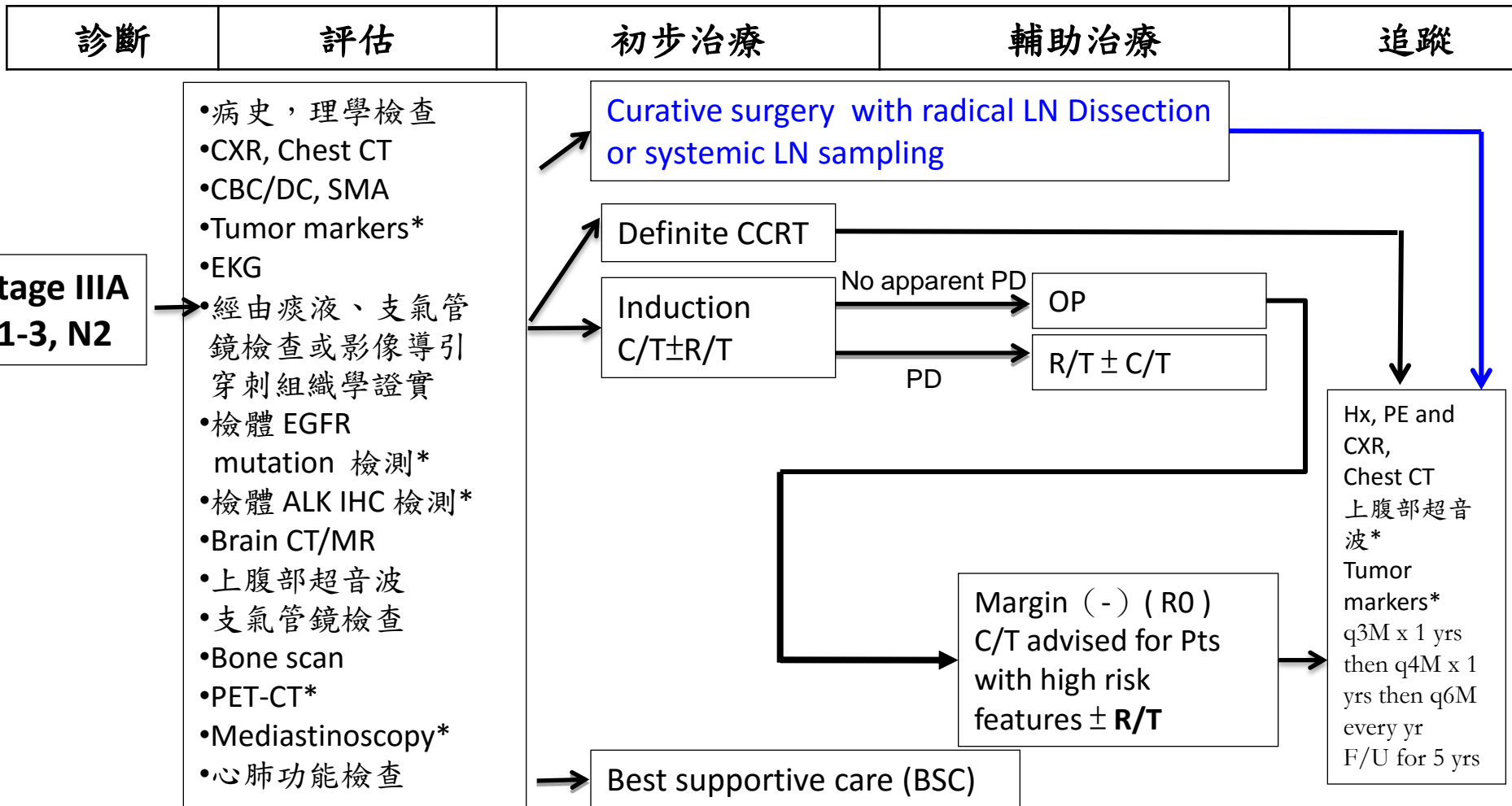
Baseline
Chest CT
after Tx,
Hx, PE
and CXR,
Tumor
markers*
Q3-4M x 2
yrs then
q6M
every yr
F/U for 5
yrs

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Stage IIIB
(T4N2-3)

- 病史，理學檢查
- CXR, Chest CT
- CBC/DC, SMA
- Tumor markers*
- ECG
- 經由痰液、支氣管鏡檢查或影像導引穿刺或表淺淋巴結抽吸組
- 組織學證實
- 檢體 EGFR mutation 檢測*
- 檢體 ALK IHC 檢測*
- Mediastinoscopy* for N2/N3 disease
- Brain CT/MR*
- 上腹部超音波
- 支氣管鏡檢查
- Bone scan*, PET-CT*
- 心肺功能檢查

EGFR mutant → EGFR TKI

ALK rearrangement → ALK TKI

Pan wild type → C/T

Definite CCRT →

Best supportive care (BSC)

病史，理學檢查
CXR,
tumor markers*
q3M x 1 yr, then
q4M x 1 yr, then
Q6-12M x 3yrs

* As clinical indicated

§ Transbronchoal fine needle aspiration

¥ Concurrent chemoradiotherapy

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評估

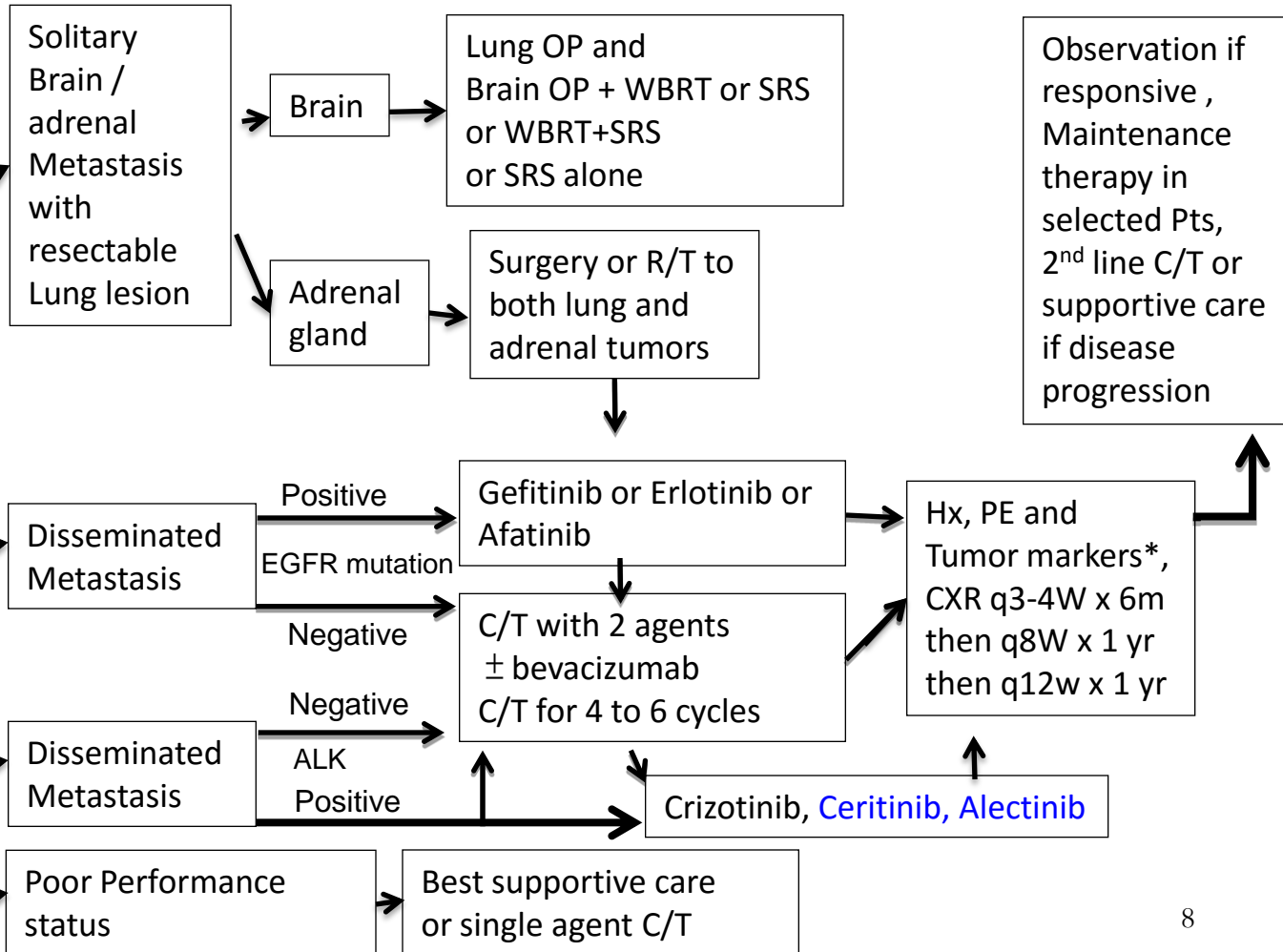
治療

重新評估

治療

- 病史，理學檢查
- CXR
- Chest CT
- CBC/DC, SMA
- Tumor markers*
- EKG
- 經由痰液、肋膜積液、支氣管鏡檢查或影像導引穿刺或表淺淋巴結抽吸組織學證實
- 檢體 EGFR mutation 檢測*
- 檢體 ALK IHC 檢測*
- If IHC positive, confirm by FISH
- 上腹部超音波檢查
- Bone scan*
- Brain CT/MRI*
- PET-CT*

Stage IV
M1a
M1b



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復發

- 病史，理學檢查
- CXR
- CBC/DC, SMA
- CEA*
- Chest CT (including liver/adrenal gland)
- 經由支氣管鏡檢查或影像導引穿刺或表淺淋巴結抽吸組織學證實*
- 檢體 EGFR mutation 檢測*
- 檢體 ALK IHC 檢測*
- Bone scan*
- Brain MRI*
- Mediastinoscopy* or TBNA[§]
- PET-CT*

Solitary metastasis to
Brain
Adrenal
Lung

Local recurrence
within the chest
or mediastinum

Malignant pleural
effusion or
disseminated
metastases

Surgery
+/- R/T
or R/T
alone

C/T as in M1 disease

* optional

§ Transbronchoal fine needle aspiration

¥ Concurrent chemoradiotherapy

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一線化學治療處方

Published C/T Regimens	Schedule
Cisplatin 60-75 mg/m ² , IV, D15 + Vinorelbine 25 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Cisplatin 60-75 mg/m ² , IV, D8 + Vinorelbine 60-75 mg/m ² , PO, D1,8	Q21 d x 4-6 cycles
Cisplatin 60-75 mg/m ² , IV, D15 + Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Cisplatin 60-75 mg/m ² , IV, D15 + Paclitaxel 60 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Cisplatin 60-75 mg/m ² , IV, D15 + Gemcitabine 900-1000 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Cisplatin 60-75 mg/m ² , IV, D1 + *Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4-6 cycles
Gefitinib 250 mg po qd (EGFR mutant)	Till PD or unacceptable toxicity
Erlotinib 150 mg po qd (EGFR mutant)	Till PD or unacceptable toxicity
Afatinib 40 mg po qd (EGFR mutant)	Till PD or unacceptable toxicity
Crizotinib 250 mg po bid (ALK rearrangement)	Till PD or unacceptable toxicity

* 使用於不是 squamous cell carcinoma 組織學型態的病人

若腎功能不佳，CCr < 60 ml/min，cisplatin 可以 carboplatin AUC 4-6 取代

若是 nonsquamous histology，沒有 bevacizumab 的 contraindication，platinum doublet 可以併用 bevacizumab

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一線的化學治療處方（年紀大，體能狀況不佳）

Published C/T Regimens	Schedule
Gefitinib 250 mg PO QD (EGFR mutant)	Till PD or unacceptable toxicity
Erlotinib 150 mg PO QD (EGFR mutant)	Till PD or unacceptable toxicity
Afatinib 40 mg po qd (EGFR mutant)	Till PD or unacceptable toxicity
Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4-6 cycles
Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Paclitaxel 60 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Gemcitabine 900-1000 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Vinorelbine 25 mg/ m ² IV, D1,8,15	Q28 d x 4-6 cycles
Vinorelbine 60-75 mg/m ² , PO, D1,8	Q21 d x 4-6 cycles
Crizotinib (ALK rearrangement)	Till PD or unacceptable toxicity

* 一線，二線及二線之後的化學治療，術後輔助化學治療，依據病人年齡、性別、組織學型態、體能狀況、器官功能狀況、副作用的考量（血液學毒性、掉髮、皮疹、色素沈著、周邊神經病變等）、曾接受過的治療、病人的喜好、及分子生物標記來選擇病人的化學治療處方，給於客製化personalized treatment) 的治療。

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維持治療處方

Published C/T Regimens	Schedule
*Pemetrexed 500 mg/m ² IV D1	Q21 d Till PD or unacceptable toxicity
*Erlotinib 150 mg PO QD	Till PD or unacceptable toxicity
*Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d Till PD or unacceptable toxicity
#Gemcitabine 900-1000 mg/m ² , IV, D1,8,15	Q28d Till PD or unacceptable toxicity
#Bevacizumab 7.5 mg/kg IV q3w	Q21d Till PD or unacceptable toxicity
#Pemetrexed 500 mg/m ² IV + Bevacizumab 7.5 mg/kg IV	Q21d Till PD or unacceptable toxicity

#Continuous maintenance therapy：在沒有疾病惡化的情況下，一線化學治療 4-6 個療程後，持續使用一線化學治療配方中的一個藥物。使用於不是 squamous cell carcinoma 組織學型態的病人。

* Switch maintenance therapy：在沒有疾病惡化的情況下，一線化學治療 4-6 個療程後，使用與一線化學治療配方不同的藥物。

二線及二線之後的化學治療處方

Published C/T Regimens	Schedule
Gefitinib 250 mg PO QD	Till PD or unacceptable toxicity
Erlotinib 150 mg PO QD	Till PD or unacceptable toxicity
Crizotinib 250 mg PO BID (ALK rearrangement)	Till PD or unacceptable toxicity
*Ceritinib 750 mg PO QD (ALK rearrangement)	Till PD or unacceptable toxicity
*Alectinib 600mg PO BID (ALK rearrangement)	Till PD or unacceptable toxicity
Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
#Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4-6 cycles
Paclitaxel 60 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Gemcitabine 900-1000 mg/m ² , IV, D1,8,15	Q28 d x 4-6 cycles
Vinorelbine 25 mg/ m ² IV, D1,8,15	Q28 d x 4-6 cycles
Vinorelbine 60-75 mg/m ² , PO, D1,8	Q21 d x 4-6 cycles

• 一線 crizotinib 治療惡化或不耐受

* 一線，二線及二線之後的化學治療，術後輔助化學治療，依據分子生物標記、病人年齡、性別、組織學型態、體能狀況、器官功能狀況、副作用的考量（血液學毒性、掉髮、皮疹、色素沈著、周邊神經病變等）、曾接受過的治療、及病人的喜好來選擇病人的化學治療處方，給於客製化（personalized treatment）的治療。

• # 使用於不是 squamous cell carcinoma 組織學型態的病人

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術前新輔助化學治療處方

Published C/T Regimens	Schedule
Cisplatin 60-75 mg/m ² , IV, D15 Vinorelbine 25 mg/m ² , IV, D1,8,15	Q28 d x 3-4 cycles
Cisplatin 60-75 mg/m ² , IV, D8 Vinorelbine 60-75 mg/m ² , PO, D1,8	Q21 d x 3-4 cycles
Cisplatin 60-75 mg/m ² , IV, D15 Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d x 3-4 cycles
Cisplatin 60-75 mg/m ² , IV, D15 Paclitaxel 60 mg/m ² , IV, D1,8,15	Q28 d x 3-4 cycles
Cisplatin 60-75 mg/m ² , IV, D15. Gemcitabine 900-1000 mg/m ² , IV, D1,8,15.	Q28 d x 3-4 cycles
Cisplatin 60-75 mg/m ² , IV, D1 #Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 3-4 cycles

若腎功能不佳，CCr < 60 ml/min，cisplatin 可以 carboplatin AUC 4-6 取代

使用於不是 squamous cell carcinoma 組織學型態的病人

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術後輔助化學治療處方

Published C/T Regimens	Schedule
Cisplatin 60-75 mg/m ² , IV, D15 Vinorelbine 25 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 60-75 mg/m ² , IV, D15 Vinorelbine 60-75 mg/m ² , PO, D1,8	Q21 d x 4 cycles
Cisplatin 60-75 mg/m ² , IV, D15 Docetaxel 30 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 60-75 mg/m ² , IV, D15 Paclitaxel 60 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 60-75 mg/m ² , IV, D15. Gemcitabine 900-1000 mg/m ² , IV, D1,8,15.	Q28 d x 4 cycles
Cisplatin 60-75 mg/m ² , IV, D1 #Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4 cycles
Tagafur/Uracil 300-500 mg PO QD *	Maintenance for 2 years

若腎功能不佳，CCr < 60 ml/min，cisplatin 可以 carboplatin AUC 4-6 取代

使用於不是 squamous cell carcinoma 組織學型態的病人

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同步化學治療放射線治療處方

Published C/T Regimens	Schedule
Cisplatin 50-60 mg/m ² , IV, D15 Vinorelbine 20-25 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 50-60 mg/m ² , IV, D15 Docetaxel 20-25 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 50-60 mg/m ² , IV, D15 Paclitaxel 45-50 mg/m ² , IV, D1,8,15	Q28 d x 4 cycles
Cisplatin 50-60 mg/m ² , IV, D1 #Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4 cycles
Carboplatin AUC 4, IV, D1 #Pemetrexed 500 mg/m ² , IV, D1	Q21 d x 4 cycles

若腎功能不佳，CCr < 60 ml/min，cisplatin 可以 carboplatin AUC 4取代

使用於不是 squamous cell carcinoma 組織學型態的病人

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