

高 雄 榮 民 總 醫 院

肺 癌 (非小細胞癌) 診 療 原 則

癌症中心 肺癌醫療團隊擬定

Reference: NCCN Clinical Practice Guideline in Oncology™ ,NSCLC, V.5.2015

非小細胞肺癌

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診斷

評估

初步治療

輔助治療

追蹤

Stage I/II
disease

- 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

Curative surgery with radical LN Dissection or systemic LN sampling
Limited resection If high risk with early localized disease

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

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

R/T or C/T or CCRT if not OP

Baseline Chest CT after Tx, Hx, PE and CXR, Tumor markers* Q4-6M x 2 yrs then q6-12M every yr F/U for 5 yrs

* As clinical indicated

§Transbronchial fine needle aspiration

¥Concurrent chemoradiotherapy

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評估

初步治療

輔助治療

追蹤

Stage III
resectable
disease

- 病史，理學檢查
- CXR, Chest CT
- CBC/DC, SMA
- Tumor markers*
- EKG
- 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

Curative surgery with radical LN Dissection or systemic
LN sampling
Limited resection If high risk with early localized disease

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

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

CCRT[¥] if not OP

Hx, PE and CXR, Chest CT
上腹部超音波*
Tumor markers*
q3M x 1 yrs then q4M x 1 yrs then q6-12M every yr F/U for 5 yrs

* As clinical indicated

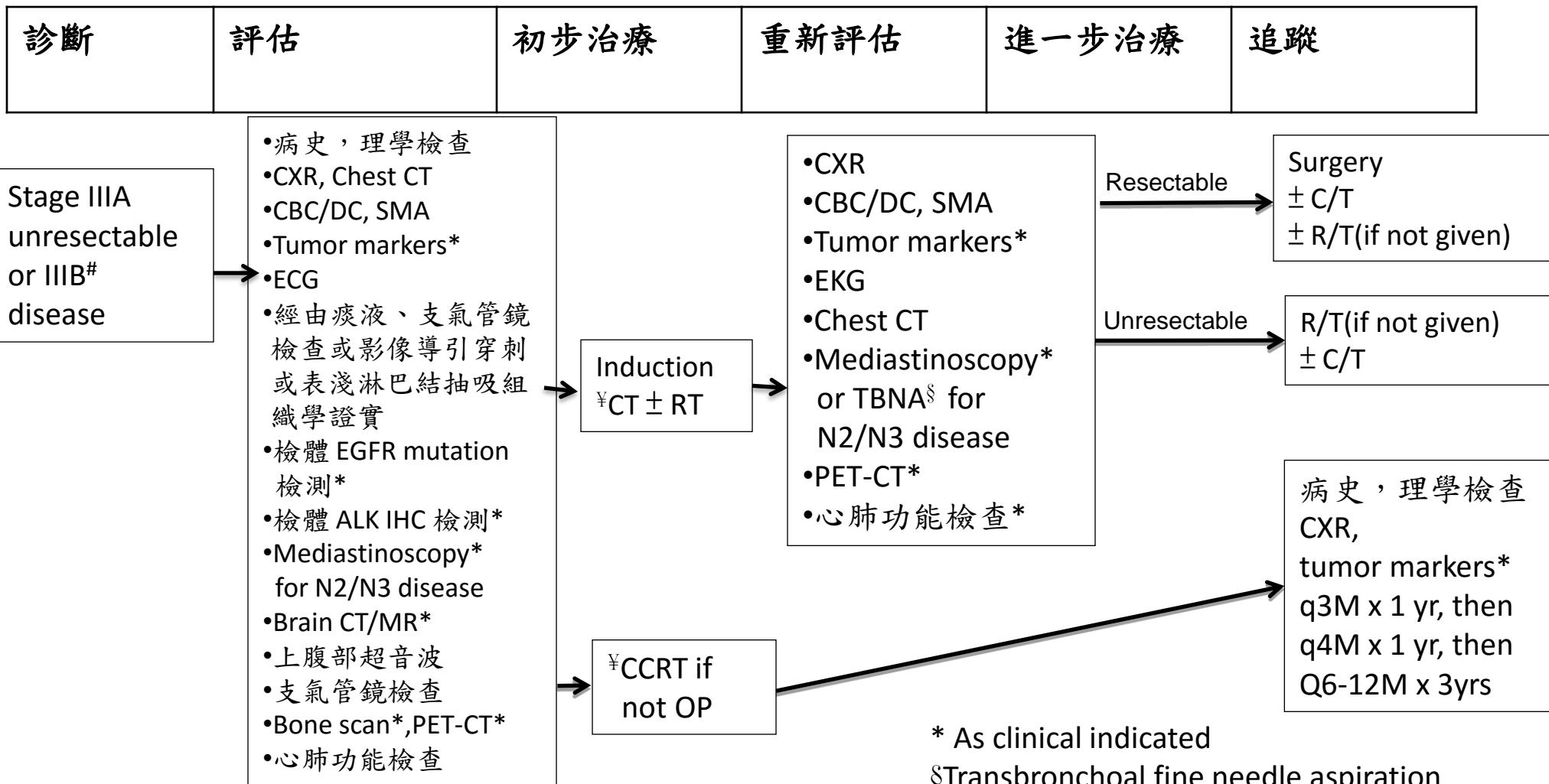
§ Transbronchoal fine needle aspiration

¥ Concurrent chemoradiotherapy

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* As clinical indicated

§Transbronchoal fine needle aspiration

¥Concurrent chemoradiotherapy

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診斷

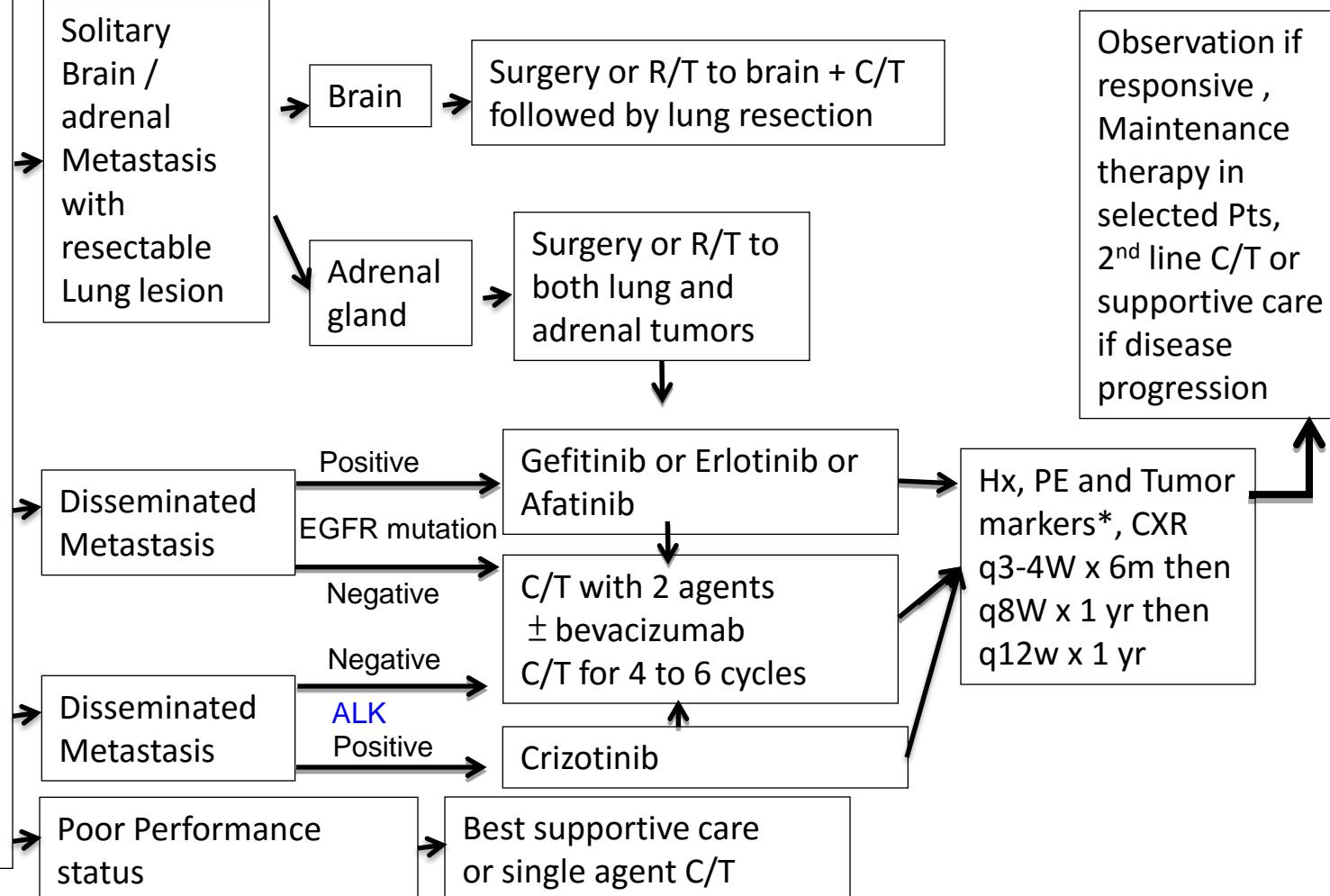
評估

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*



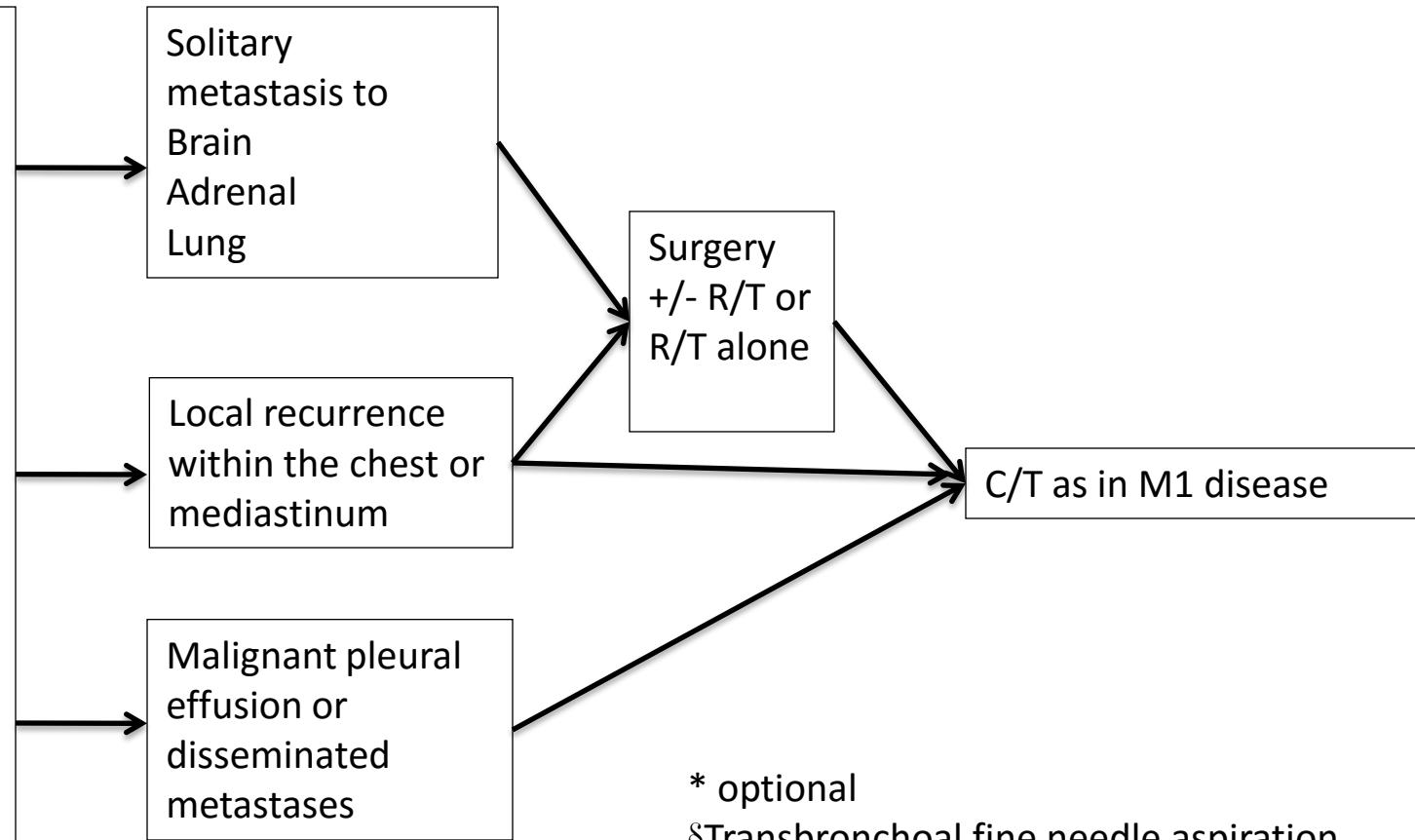
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復發

- 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*



* 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 |

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

* 使用於不是 squamous cell carcinoma 紋樣學型態的病人

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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 |
| 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 |
| Afatinib 40 mg po qd (EGFR mutant) | Till PD or unacceptable toxicity |
| 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。

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 細胞型態的病人。

* 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。

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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 |
| *Ceritinib 750 mg po qd (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 級組織學型態的病人

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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 |

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 級組織學型態的病人

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此版新增抗癌藥物停藥準則：

1. 病人拒絕。
2. 病況不宜：ECOG4。

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