肺癌

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肺癌臨床治療準則

恩主公醫院肺癌團隊編撰

2026-01-12修訂第十二版

關於此臨床指引：肺癌的診療仍在發展階段，本指引主要在呈現目前肺癌診療的進展與共識，醫師應鼓勵病患參與臨床試驗，使其有機會得到最好的治療。在本指引中的化療用藥建議是基於現有的臨床證據，和目前的國健署或衛福部規定無關。

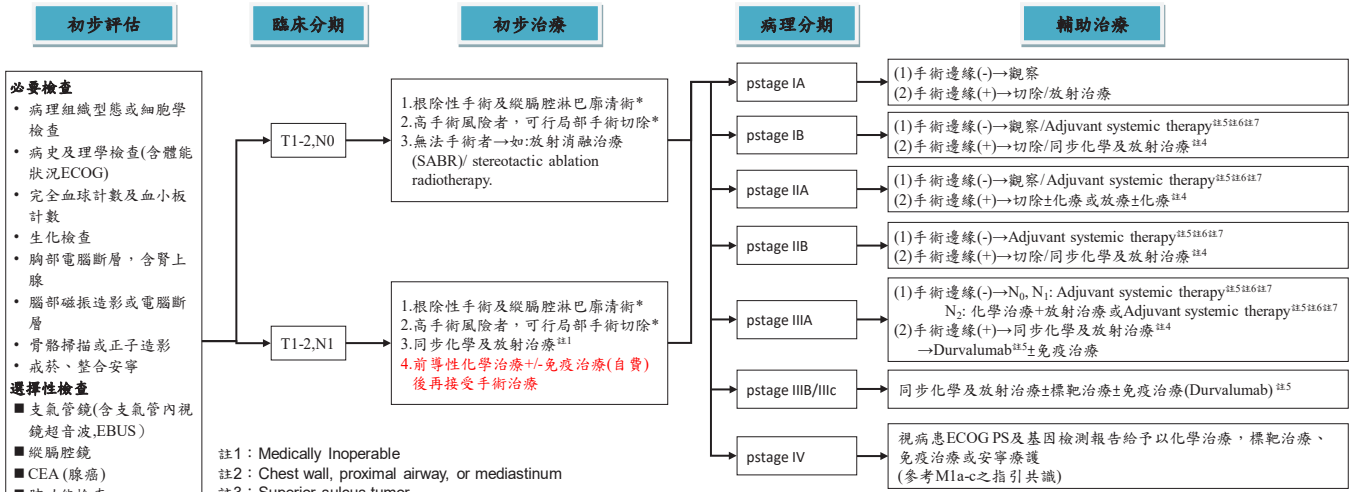
本準則並未全部列入健保未通過之治療，依評鑑說明會規定：健保局通過新的治療，可於多專科團隊通過後加入準則採用。

115年肺癌診療指引修訂

2025-01-06 修訂第十一版	2026-01-12 修訂第十二版
1. 修訂非小細胞肺癌診療指引共識:1-5 2. 新增非小細胞肺癌診療指引共識:6-7 3. 非小細胞肺癌-更新文獻 4. 小細胞肺癌-更新文獻	1. 修訂非小細胞癌指引共識：1-3、5 2. 修訂小細胞癌指引共識：1-2 3. 修訂手術切除原則 4. 修訂治療後追蹤原則 5. 非小細胞癌-更新文獻 6. 小細胞癌-更新文獻 7. 修訂共識處方

非小細胞肺癌臨床治療準則

非小細胞肺癌診療指引共識-1



註1：Medically Inoperable
註2：Chest wall, proximal airway, or mediastinum
註3：Superior sulcus tumor
註4：如手術邊緣有腫瘤，則追加放療(肺癌因某些特定因素只做wedge resection 者，若病理報告雖然cut end free, 但安全距離<1cm 者，經會議討論後可在腫瘤切除邊緣處加做局部放射線治療)。
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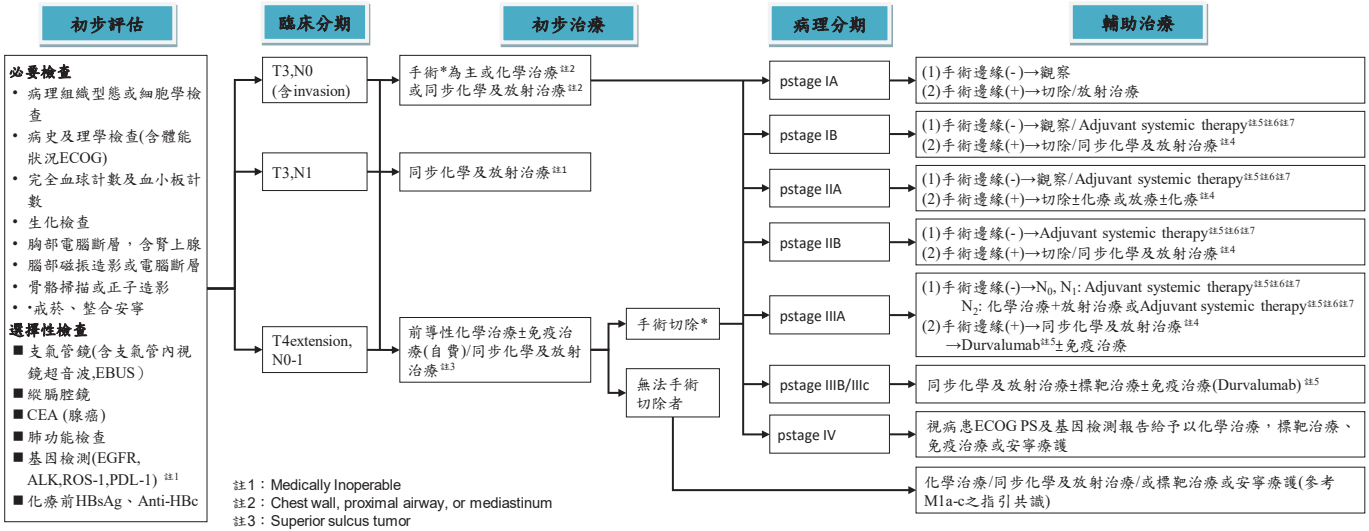
註7：曾接受輔助治療且PDL-1≧1%之病患。
*stage IB, II, IIIA開完刀，可送自費EGFR檢測，如有EGFR(exon 19 del or L858R), 予自費Osimertinib 80mg/day(↓CNS recurrent, ↑Disease free survival) (ADAURA study) 2020ESMO；如有ALK rearrangement，予自費Alectinib 600mg BID(ALINA Study).

非小細胞肺癌診療指引共識-2



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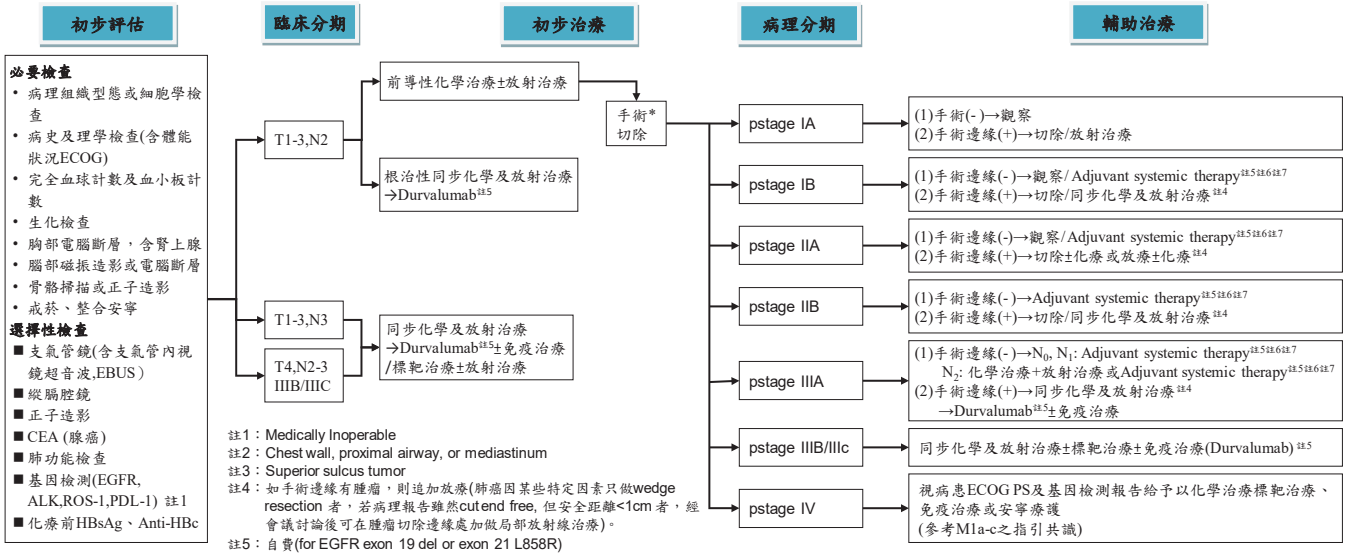
非小細胞肺癌診療指引共識-3



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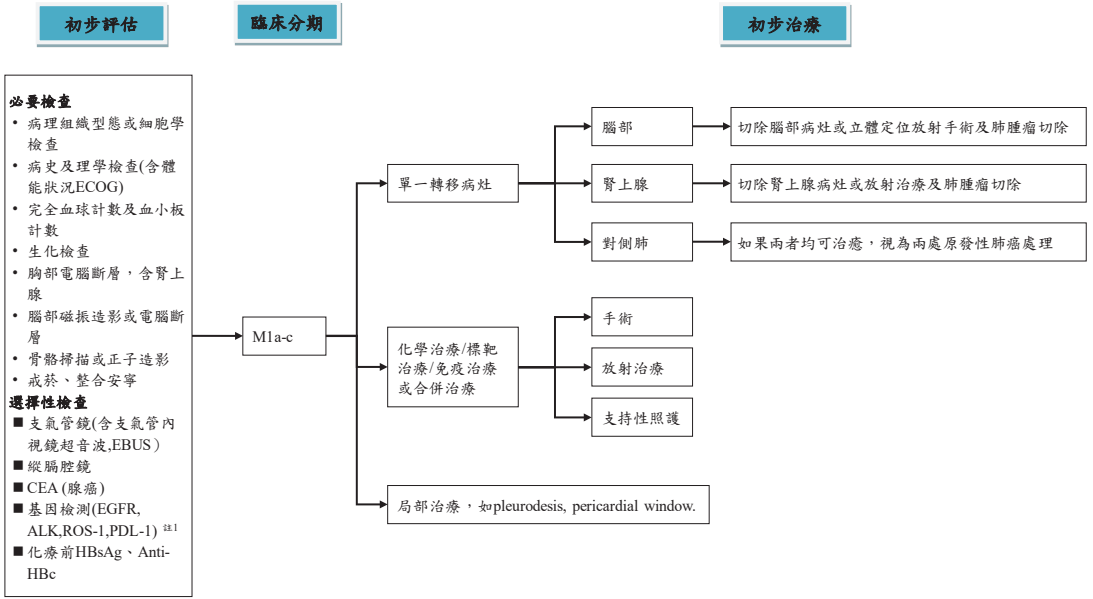
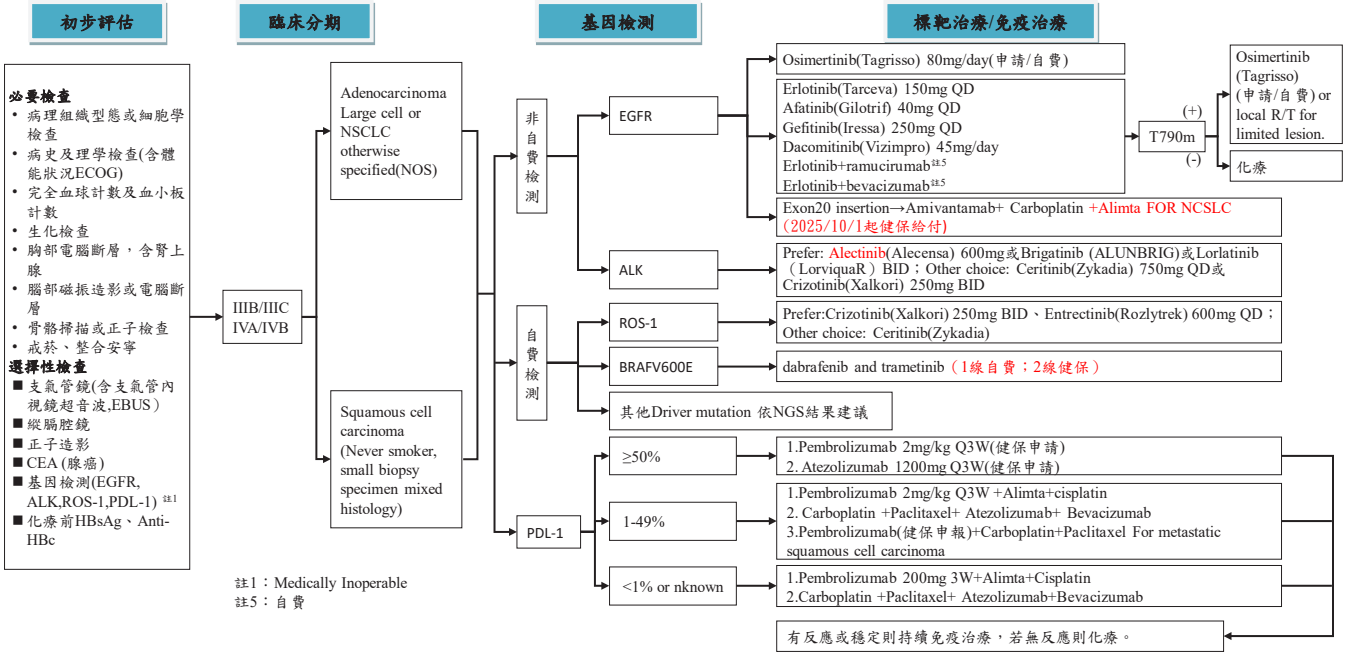
非小細胞肺癌診療指引共識-4



非小細胞肺癌診療指引共識-5



註1：Medically Inoperable
註5：自費

非小細胞肺癌診療指引共識-6

Regimens for Neoadjuvant Therapy		
	Published Chemotherapy Regimens	**Schedules**
NC-N	**Vinorelbine (25-30 mg/m2 i.v. or 60-80 mg/m2 p.o.)-D1,8 + Cisplatin (60-75 mg/m2)-D1**	**Q3W for2-4 cycles**
	Nivolumab360 mg + platinum based chemotherapy(as following) **-Carboplatin (AUC = 4-6) -D1 + Paclitaxel (160-175 mg/m2) -D1 (any histology)** **-Cisplatin (60-75 mg/m2) -D1 + Pemetrexed (500 mg/m2) -D1 (non-SqCChistology)** **-Cisplatin (60-75 mg/m2) -D1 + Gemcitabine (1000-1250 mg/m2)-D1,8 (squamous histology)** **-Cisplatin (60-75 mg/m2) -D1 + Paclitaxel (160-175 mg/m2)-D1 (any histology)**	**Q3W for3cycles**
	Pembrolizumab (200 mg)-D1 + platinum based chemotherapy(as following) **-Cisplatin (60-75 mg/m2) -D1 + Pemetrexed (500 mg/m2) -D1 (non-SqCChistology)** **-Cisplatin (60-75 mg/m2) -D1 + Gemcitabine (1000-1250 mg/m2)-D1,8 (squamous histology)**	
GC-G	**Gemcitabine (1000-1250 mg/m2)-D1,8 + Cisplatin (60-75 mg/m2)-D1**	**Q3W for2-4 cycles**
TC	**Docetaxel(60-75 mg/m2)-D1 + Cisplatin(60-75 mg/m2)-D1**	**Q3W for2-4 cycles**
TaC*	**Paclitaxel (160-175 mg/m2)-D1 + Cisplatin (60-75 mg/m2)-D1**	**Q3W for2-4 cycles**
AC	**Pemetrexed (500 mg/m2) –D1+ Cisplatin (60-75 mg/m2)-D1**	**Q3W for2-4 cycles**

Neoadjuvant treatment with Nivolumab, pembrolizumab and Pemetrexed is not reimbursed by NHI

非小細胞肺癌診療指引共識-7

Regimens for Adjuvant Therapy

[Indication: pathological IB (high-risk patients, 健保不給付), stage II and IIIA]

	Published Chemotherapy Regimens	Schedules
NC-N	Vinorelbine (25-30 mg/m2 i.v. or 60-80 mg/m2 p.o.)-D1,8 + Cisplatin (60-75 mg/m2)-D1	Q3W for2-4 cycles
	Other Acceptable Chemotherapy Regimens (健保不給付)	**Schedules**
GC-G	Gemcitabine (1000-1250 mg/m2)-D1,8 + Cisplatin (60-75 mg/m2)-D1	Q3W for 2-4 cycles
TC	Docetaxel(60-75 mg/m2)-D1 + Cisplatin(60-75 mg/m2)-D1	Q3W for 2-4 cycles
TaC*	Paclitaxel (160-175 mg/m2)-D1 + Cisplatin (60-75 mg/m2)-D1	Q3W for 2-4 cycles
AC	Pemetrexed (500 mg/m2) + Cisplatin (60-75 mg/m2)-D1	Q3W for 2-4 cycles
	Osimertinib80 mg (EGFR(+) after platinumbased chemotherapy)	QD for 3 years
	Atezolizumab840mg/1200mg/1680mg (EGFR(-))	Q2W/Q3W/Q4W for 1 year
	Pembrolizumab200 mg (EGFR(-))	Q3W for 1 year

Chemotherapy Regimens for Adjuvant Therapy-non platintinum based
(Indication: Adeno, pT2 and tumor size > 3 cm)

UFUR(for adeno)	300-600 mg as tegafur, divided by 2-3 times daily	2 years

Cisplatin若改成 Carboplatin, 劑量為 (CCr+25) x AUC, AUC = 4-6
***Paclitaxel+carboplatin regimen showed survival benefit in stage IB, > 4 cm**

Adjuvant treatment with Osimertinib/Atezolizumab/Pembrolizumabis not reimbursed by NHI

基因檢測健保檢測規定

- EGFR: stage IV adenocarcinoma可檢測, IIIB IIIC須團隊討論再申請
- ALK and ROS-1由廠商提供 (IIIB, IIIC, IV)
- EGFR, ALK , ROS-1 (-), CV功能佳, performance 0-1可檢測 PD-L1
- NGS檢測一輩子健保給付一次

肺癌追蹤流程(五年追蹤期)

(一)小細胞肺癌：

1. 前三年每3-4個月病史及理學檢查並追蹤一次胸部電腦斷層(包括肝臟及腎上腺)/腦部核磁共振。
2. 滿三年後每6個月病史及理學檢查並追蹤一次胸部電腦斷層(包括肝臟及腎上腺)/腦部核磁共振。
3. CR or PR→PCI(擴散型可加胸部放射線治療)

   SD：追蹤再檢查，是否為新的肺癌

   PD：二線化學治療- Topotecan PO or IV

   Palliative care(Early palliative care for patient with metastatic NSCLC. NEJM 2010 363:733-742.)

(二)非小細胞肺癌術後：

- Stage I–II (primary treatment included surgery ± chemotherapy)
  前三年每6個月病史及理學檢查及胸部電腦斷層檢查。之後，每年一次a low-dose non– contrast-enhanced chest CT。
- Stage I–II (primary treatment included RT) or stage III or stage IV (oligometastatic with all sites treated with definitive intent)
  前三年每3~6個月做病史及理學檢查及胸部電腦斷層。之後，第四年和第五年，每半年一次做病史及理學檢查及胸部電腦斷層檢查。五年以後，每年一次a low-dose non– contrast-enhanced chest CT。

一. 非小細胞肺癌評估原則

1. 整體評估：病理依據、日常體能狀態、體重減輕、胸部電腦斷層、抽菸史
2. 分期評估：建議依情況評估肺功能、腦部電腦斷層或核磁共振及骨掃描。
   A. 正子掃描（PET/CT SCAN）：肺癌臨床分期的術前評估，至於安排時間點是在胸腔電腦斷層（chest-CT）後。
   B. 除非胸部電腦斷層或正子掃描都無縱膈腔異常發現且主要病灶在週邊(peripheral IA lesion)可以不做縱膈腔鏡外，否則縱膈腔鏡仍是評估縱膈腔淋巴結的gold standard(p.s. N2 or N3 disease can be confirmed by other methods including mediastinotomy, thoracoscopy, EBUS-FNA, EUS-FNA, CT-guided-FNA, supraclavicle LN biopsy)。
   C. 腦部核磁共振取代腦部電腦斷層建議在臨床分期在II及III以上的病人安排。
   D. 術中病理檢查若有R1 (microscopic residual tumor) 或R2(macroscopic residual tumor)，應視實際情形考慮re-resection /（+chemotherapy）或是chemoradiation /（+ chemotherapy）。
   E. 正子掃描或骨掃描發現骨頭影像異常，建議要進行骨骼X光或核磁共振評估。

二. 手術切除原則

1. 手術前評估與 N2 處理邏輯

(1) 分期影像（CT、PET/CT）需於手術前60天內完成。

(2) 非緊急狀況下，術前所需影像學檢查應完備。

(3) 是否可切除(resectability)之決定建議應由有經驗之胸腔外科醫師來決定。

(4) Stage IIIA 以前，若 PET 或縱隔腔評估（EBUS/縱隔腔鏡）：

N2 (-)：採手術治療。若潛在疾病無法開刀，則採 SABR（放射消融）或 R/T+C/T。

N2 (+)：

首選 **新輔助化療 + 免疫治療** (Neoadjuvant C/T + IO) 後再評估手術。

傳統選項：CCRT 或 誘導化療 (Induction C/T)。

備註：若為多站 N2 或大型淋巴結 (≥3cm)，原則上不考慮直接手術

2. 微創與保留肺功能

- **首選方式：解剖性肺切除術（Anatomic resection）。**
- **亞肺葉切除（Sublobar）適用對象：**
  - **周邊型 T1ab, N0 腫瘤。**
  - **肺功能較差或有重大共病者（首選肺段切除）。**
  - **切除安全距離：邊緣（Margin）需 ≥ 2 公分 或 ≥ 腫瘤大小。**

- **微創優先：無禁忌症下，強烈建議使用 VATS（胸腔鏡） 或 Robotic (機器人輔助手術)。**
- **保留肺組織：若條件允許，首選「袖狀肺葉切除（Sleeve）」而非全肺切除。**
- **淋巴結與邊緣評估：Radical Lymph Node Dissection（淋巴結徹底廓清術）**
  - **採樣標準：至少需採樣 1 站 N1 與 3 站 N2 淋巴結，或進行完整廓清。**
  - **R0 切除定義：邊緣無癌細胞、完成系統性淋巴結採樣、且最高位縱隔腔淋巴結為陰性。**
- **N2 期患者的特別規範：**
  - **多模式治療：N2 患者不建議直接手術，應由多專科團隊討論。目前國際趨勢首選 新輔助化療 + 免疫治療。**
  - **術後輔助：IB 期以上或具高風險者，應轉介血液腫瘤科；N2 殘留者應考慮放射治療。**
  - **PD-L1 表現量：2025 指引高度參考 PD-L1 數據來決定術後免疫治療的必要性（PD-L1≥50%的族群）。**

3. 手術後處理 (Adjuvant Therapy)

開刀後根據病理分期與殘餘腫瘤狀態（R 定義）決定：

(1) **R0** resection：Stage IA：觀察。

Stage IB-IIA：觀察/輔助系統性治療。

Stage IIB：輔助系統性治療。

Stage IIIA（N0、N1）：輔助系統性治療。

（N2）：CCRT/輔助系統性治療。

Stage IIIB-IIIC：CCRT/標靶/輔助系統性治療。

(2) **R1、R2 resection：Stage IA：R/T**。

Stage IB-IIB：CCRT。

Stage IIIA以上：CCRT+免疫治療。

4. **胸壁 (Chest wall) 與 近端氣道 (Proximal airway)**

(1) 可手術 (Operable)：先開刀（整塊切除 En-bloc），後續依 R0/R1/R2 決定（同上述第 2 點）。

(2) 不可手術 (Inoperable)：CCRT 或 根治性 R/T。

5. **肺尖癌 (Superior sulcus tumor / Pancoast Tumor)**

首選：**Pre-operative CCRT** → 手術切除 → 術後輔助 C/T。

若無法開刀：CCRT 或 R/T + C/T± IO。

6. **縱隔腔鏡與淋巴結評估原則**

N0-1：手術治療（解剖性切除為首選）。

N2：多模式治療（化放療、免疫治療、手術）。

N3：CCRT。

採樣要求：手術必須包含至少 **1 站 N1 與 3 站 N2** 淋巴結採樣。

7. **臨床分期 Stage IIIB, IV 與進階檢查**

原則上無法手術。

需進行全套檢查確認：PET、Brain MRI、EBUS/縱隔腔鏡、胸水/心包膜積水抽吸。

必做基因檢測：確認 EGFR, ALK, ROS1, BRAF, KRAS, PD-L1 等，以決定系統性全身治療方案。

三.病理評估原則

1. 病理評估的目的包括：肺癌分期；腫瘤侵犯程度及確立外科手術切除範圍；EGFR- TKI基因檢測。
2. 手術病理報告應該有WHO肺癌組織分類。
3. Adenocarcinoma in situ (AIS)應無間質細胞、肋膜與淋巴管之侵犯。免疫染色: Non-mucinous BAC = TTF-1 (+) / CK7 (+) / CK20 (-); Mucinous BAC = TTF-1 (-) / CK7 (+) / CK20 (+)
4. 免疫染色可幫助鑑別原發或轉移肺腺癌，區別腺癌及惡性間皮細胞癌，決定腫瘤之神經內分泌分化。
5. TTF-1對區分原發或轉移肺腺癌很重要。大部分原發肺腺癌TTF-1為陽性，轉移腺癌(甲狀腺癌除外)為陰性反應
6. Primary lung adenocarcinoma：TTF-1(+) / CK7(+) / CK20(-) / CDX-2 (-)；
   甲、Metastatic colorectal carcinoma：TTF-1(-) / CK7(-) / CK20(+) / CDX-2 (+)
7. EGFR mutation之有無與TKI治療之反應相關；如TKI 對exon21 mutation 與exon19 deletion之腫瘤治療效果良好。K-ras與吸煙相關；K-ras與EGFR mutation為mutually exclusive；有K-ras mutation對TKI治療效果不佳。
8. 視需要檢測ALK mutation。 TKI治療，若惡化可加作T790 mutation以使用後線標靶用藥。
9. 小細胞癌多數(95%)原發自肺，少數則來自肺外器官，二者有類似之臨床和生物特性，極易廣泛轉移。小細胞癌細胞通常Keratin 及至少一種之neuroendocrine differentiation markers (CD56, synaptophysin或 chromogranin A)呈陽性免疫染色。

- 註:EGFR: Epidermal Growth Factor Receptor
- TKI: Tyrosine Kinase Inhibitor
- TTF-1: Thyroid transcription factor-1

四. 治療後追蹤原則 (Surveillance)

當完成根治性治療且無臨床/影像證據顯示疾病存在時：

1. **Stage I–II (主要治療含手術±全身性治療)**
   - **前 2–3 年：**每 **6 個月** 執行一次病史與體檢及**胸部含顯影劑CT。**
   - **3 年後：**改為每年一次病史與體檢及**低劑量無顯影劑胸部 CT。**
   - 如果臨床有需求，視情況調整追蹤時程。
2. **Stage I–II (主要治療為放療) 或 Stage III/IV (寡轉移經根治性治療)**
   - **前 3 年：**每 **3–6 個月** 執行一次病史與體檢及**胸部含顯影劑 CT。**
   - **第 4–5 年：**每 **6 個月** 執行一次病史與體檢及**胸部含顯影劑 CT。**
   - **5 年後：**改為每年一次病史與體檢及**低劑量無顯影劑胸部 CT。**
   - 如果臨床有需求，視情況調整追蹤時程。
3. **其他建議**
   - **FDG-PET/CT：不建議作為常規追蹤檢查。**
   - **Brain MRI：不作為常規，僅在臨床有症狀或風險評估需要時才執行。**
   - **戒菸：應提供持續的戒菸諮詢與藥物支持。**

五. 非小細胞肺癌放射線治療政策與程序指引

請參閱本院放射線治療指引。

肺癌抗癌藥物治療用藥準則 －非小細胞肺癌

定義：Neoadjuvant regimen: (開刀前化療)→op →adjuvant(開刀後化療),
metastatic regimen：未手術較晚期病人
Adjuvant chemotherapy：Stage 2-3, stage IB but with tumours >4 cm in size. 開刀後予C/T
Neoadjuvant chemotherapy：Stage 1b-3a, (於ECK: stage 3 a), neoadjuvant chemotherapy 不用再加R/T

Neoadjuvant Chemotherapy

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
	Nivolumab+ Neoadjuvant Chemotherapy	Nivolumab	360mg/cycle	IVD	1h	D1	Q3W	4	72-73
L005	Alimta+ Cisplatin (Nonsquamous)	Cisplatin	75	IVD	3h	D1	Q3W	4	1
		Pemetrexed	500	IVD	10min	D1			
	Alimta+ CARBOplatin (Nonsquamous)	Carboplatin	AUC5	IVD	2h	D1	Q3W	4	14
		Pemetrexed	500	IVD	10min	D1			
	Paclitaxel+ Carboplatin (any histology)	Paclitaxel	200	IVD	4h	D1	Q3W	4	70
		Carboplatin	AUC6	IVD	1h	D1			

Neoadjuvant Chemotherapy

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
	Paclitaxel+ Cisplatin (any histology)	Paclitaxel	175 or 200	IVD	4h	D1	Q3W	4	70
		Carboplatin	75	IVD	1h	D1			
	Gemcitabine+ Carboplatin (Squamous)	Gemcitabine	1000	IVD	0.5h	D1,8	Q3W	4	71
		Carboplatin	AUC5	IVD	3h	D1			
L003 L004	Gemcitabine+ Cisplatin (Squamous)	Cisplatin	75	IVD	3h	D1	Q3W	4	2
		Gemcitabine	1250	IVD	30min	D1,8			

CCRT(Concurrent chemoradiotherapy)

化療系統處方代碼	處方	藥名	劑量 (mg/m²)	途徑	輸注時間	天數	頻率	療程數	文獻
	Etoposide+ Cisplatin (Squamous)	Cisplatin	50	IVD		D1,8,29,36			3-4
		Etoposide	50	IVD		D1-5,D29-33			
	Alimta+ Cisplatin	Cisplatin	75	IVD		D1	Q3W	3	45
		Pemetrexed	500	IVD		D1		3 + 4 (additional)	
	Alimta+ CARBOplatin	Carboplatin	AUC5	IVD		D1	Q3W	4	46
		Pemetrexed	500	IVD		D1			
	Docetaxel+ Cisplatin (Squamous)	Docetaxel	75	IVD		D1	Q3W	2	47
		Cisplatin	40	IVD		D1-2			
		Followed by CCRT							
		Docetaxel	20	IVD		D1	Q3W	6	
		Cisplatin	20	IVD		D1			
L017	Docetaxel+ Carboplatin	Docetaxel	20	IVD	1h	D1	QW	During CCRT	55
		Carboplatin	AUC2	IVD	2h	D1			

20

Adjuvant chemotherapy

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L003 L004	Gemcitabine + Cisplatin (Q3W)	Gemcitabine	1250	IVD	0.5h	D1,8	Q3W	4	5
		Cisplatin	75	IVD	3h	D1			
L003-1 L004	Gemcitabine + Cisplatin (Q4W)	Gemcitabine	1000	IVD	0.5h	D1,8,15	Q4W	4	6
		Cisplatin	75	IVD	3h	D1			
L006-6	Docetaxel+ Cisplatin	Docetaxel	75	IVD	1.5h	D1	Q3W	4	7
		Cisplatin	75	IVD	4h	D1			
L001-1	Docetaxel+ Carboplatin	Docetaxel	70	IVD	1h	D1	Q3W	4	61
		Carboplatin	AUC5	IVD	4h	D1			

Adjuvant chemotherapy

化療系統 處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L015 L015-1	Cisplatin+ Vinorelbine	Vinorelbine	30	IVD	10min	D1,8	Q3W	4	10
		Cisplatin	75	IVD	4h	D1			
L015-2	Oral Vinorelbine+ Cisplatin	Vinorelbine	30	IVD	10min	D1,8	Q3W	4	62
		Cisplatin	75	IVD	4h	D1			

Adjuvant chemotherapy

化療系統 處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L005	Alimta+ Cisplatin (一天)	Cisplatin	75	IVD	4h	D1	Q3W	4	11
		Pemetrexed	500	IVD	10min	D1			
L006-3	Alimta+ Cisplatin (兩天)	Cisplatin	75	IVD	3h	D2	Q3W	4	11
		Pemetrexed	500	IVD	10min	D1			
L006-4	Alimta+ CARBOplatin (一天)	Carboplatin	AUC5	IVD	2h	D1	Q3W	4	14-15
		Pemetrexed	500	IVD	10min	D1			
L006-5	Alimta+ CARBOplatin (兩天)	Carboplatin	AUC5	IVD	2h	D2	Q3W	4	14-15
		Pemetrexed	500	IVD	10min	D1			

Chemotherapy for advanced and metastatic disease (1st-line) (PS 0-1)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L011-1	Gemcitabine+ Cisplatin (Q3W)	Gemcitabine	1250	IVD	0.5h	D1,8	Q3W	4	16
		Cisplatin	75	IVD	3h	D1			
L011-2	Gemcitabine+ Cisplatin (Q4W)	Gemcitabine	1000	IVD	0.5h	D1,8,15	Q4W	4	17
		Cisplatin	75	IVD	3h	D1			
L011-4	Docetaxel+ Cisplatin	Docetaxel	75	IVD	1h	D1	Q3W	4	18
		Cisplatin	75	IVD	2h	D1			
L011-6	Docetaxel+ Carboplatin	Docetaxel	35	IVD	1h	D1,8,15	Q4W	4	20
		Carboplatin	AUC5	IVD	4h	D1			

Chemotherapy for advanced and metastatic disease (1st-line) (PS 0-1)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L008 L008-1	Paclitaxel+ Cisplatin	Paclitaxel	50,60	IVD	1h	D1,8,15	Q4W	4	21
		Cisplatin	60,75	IVD	3h	D1			
L008-2	Paclitaxel+ Cisplatin (triweekly)	Paclitaxel	175	IVD	4h	D1	Q3W	>3	58-59
		Cisplatin	80	IVD	3h	D1			
	Paclitaxel+ Carboplatin	Paclitaxel	200	IVD	4h	D1	Q3W		67
		Carboplatin	AUC6	IVD	1h	D1			
L020	Pembrolizumab +Paclitaxel +CARBOplatin	Carboplatin	AUC6	IVD		D1	Q3W	4	50
		Paclitaxel	200	IVD		D1			
		Pembrolizumab	200mg	IVD		D1			

Chemotherapy for advanced and metastatic disease (1st-line) (PS 0-1)

化療系統 處方代碼	處方	藥名	劑量(mg/m²)	途徑	輸注時間	天數	頻率	療程數	文獻
	Amivantamab + Pemetrexed + Carboplatin	Amivantamab	1400 mg/cycle (<80kg) (split over 350mg D1,1050mg D2) 1750 mg/cycle (<80kg) (split over 350mg D1,1400mg D2)	IVD		D1	Q3W	4	68
		Pemetrexed	500	IVD		D1			
		Carboplatin	AUC5	IVD		D1			

Chemotherapy for advanced and metastatic disease (1st-line) (PS 2)

化療系統處方代碼	處方	藥名	劑量(mg/m²)	途徑	輸注時間	天數	頻率	療程數	文獻
L011-3	Docetaxel	Docetaxel	28, 31, 34	IVD	1h	D1,8,15	Q4W		20
L005-1	Alimta	Pemetrexed	500	IVD	10min	D1	Q3W		12
L011-9	Alimta+ CARBOplatin (一天)	Carboplatin	AUC5	IVD	2h	D1	Q3W		26
		Pemetrexed	500	IVD	10min	D1			
L011-91	Alimta+ CARBOplatin (兩天)	Carboplatin	AUC5	IVD	2h	D2	Q3W		27
		Pemetrexed	500	IVD	10min	D1			
L014	Gemcitabine+ Carboplatin	Gemcitabine	1000	IVD		D1,8,15	Q4W	4	48
		Carboplatin	AUC5	IVD		D1			

Chemotherapy for advanced and metastatic disease (1st-line) (Nonsquamous, PS 0-1)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L011-7	Alimta+ Cisplatin (一天)	Cisplatin	75	IVD	4h	D1	Q3W	6	22
		Pemetrexed	500	IVD	10min	D1			
L011-8	Alimta+ Cisplatin (兩天)	Cisplatin	75	IVD	3h	D2	Q3W	6	22
		Pemetrexed	500	IVD	10min	D1			
L002	Docetaxel for maintenance therapy	Docetaxel	75	IVD	2h	D1	Q3W	6	39-40
	Pembrolizumab +Pemetrexed +CARBOplatin	Carboplatin	AUC6	IVD		D1	Q3W	4	49
		Pemetrexed	500	IVD		D1			
		Pembrolizumab	200mg	IVD		D1			
L021	Atezolizumab+ carboplatin+ paclitaxel+ bevacizumab	Carboplatin	AUC6	IVD	1h	D1	Q3W	6	64
		Paclitaxel	175	IVD	3h	D1			
		Atezolizumab	1200mg	IVD	1h	D1			
		bevacizumab	15mg/kg	IVD	1.5h	D1			

Chemotherapy for advanced and metastatic disease (2nd-line)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
	Atezolizumab	Atezolizumab	840mg	IVD		D1	Q2W	until disease progression or unacceptable toxicity	24
		Atezolizumab	1200mg	IVD		D1	Q3W		
L013	Pembrolizumab	Pembrolizumab	200mg	IVD		D1	Q3W	until disease progression or unacceptable toxicity	52
L016	Dacomitinib+ Bevacizumab	Dacomitinib	30mg	PO		QD		until disease progression or unacceptable toxicity	54
		Bevacizumab	7.5mg/kg	IVD	0.5h	D1	Q3W		
L018	Osimertinib+ Bevacizumab	Osimertinib	80mg	PO		QD		4	57
		Bevacizumab	15mg/kg	IVD	0.5h	D1	Q3W		

Chemotherapy for advanced and metastatic disease (2nd-line)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L019	Erlotinib+ Bevacizumab	Erlotinib	150mg	PO		QD			
		Bevacizumab	15mg/kg	IVD	0.5h	D1	Q3W	4	60
L022	Ramucirumab+ Docetaxel	Ramucirumab	10mg/kg	IVD	0.5h	QD			
		Docetaxel	75	IVD	1h	D1	Q3W		63

Chemotherapy for advanced and metastatic disease (3rd-line)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
L019	Nivolumab	Nivolumab	3mg/kg	IVF	30min	D1	Q2W		66

Targeted therapy for advanced and metastatic disease

院內碼	處方	藥名	劑量	途徑	頻率	備註	文獻
MDG03	Gefitinib (EGFR, Non-squamous)	Gefitinib	250mg	PO	QD	(PS 2)	30-31
MDE02	Erlotinib (EGFR, Non-squamous)	Erlotinib	150mg	PO	QDAC	(PS 0-1)	30-31
MDO01	Osimertinib (EGFR, Non-squamous)	Osimertinib	80mg	PO	QD		37
MDU01	Tegafur/Uracil	Tegafur/Uracil	300-400 mg/m2	PO	QD	(PS 0-1) For 2 years	32-33
		Tegafur/Uracil	200 mg/m2	PO	BID		
MDC07	Crizotinib (ALK+, ROS-1+)	Crizotinib	250mg	PO	BID		34-35
MDA04	Alectinib (ALK+)	Alectinib	600mg	PO	BID		36
MDB04	Brigatinib (ALK+)	Brigatinib	90mg	PO	QD	D1-D7	41-42
			180mg	PO	QD	After 1st week	
	Loratinib (ALK+,ROS-1+)	Lorlatinib	100mg	PO	QD		43
MDE07	Entrectinib (ROS-1+)	Entrectinib	600mg	PO	QD		44
MDD04 MDD03	Dacomitinib (EGFR19,21 L858R+)	Dacomitinib	45mg	PO	QD		56

Targeted therapy for advanced and metastatic disease

化療系統處方代碼	處方	藥名	劑量	途徑	頻率	備註	文獻
	Dabrafenib/trametinib (BRAF V600E+)	Dabrafenib	150mg	PO	QD		51
		Trametinib	2mg	PO	QD		
	Erlotinib+ Ramucirumab	Erlotinib	150mg	PO	QDAC		53
		Ramucirumab	10 mg/kg	IVD	Q2W		
	Larotrectinib (NTRK1/2/3 Gene Fusion)	Larotrectinib	100mg	PO	BID		65

Consolidation therapy

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
	Durvalumab	Durvalumab	10mg/kg	IVD		D1	Q2W	24	38

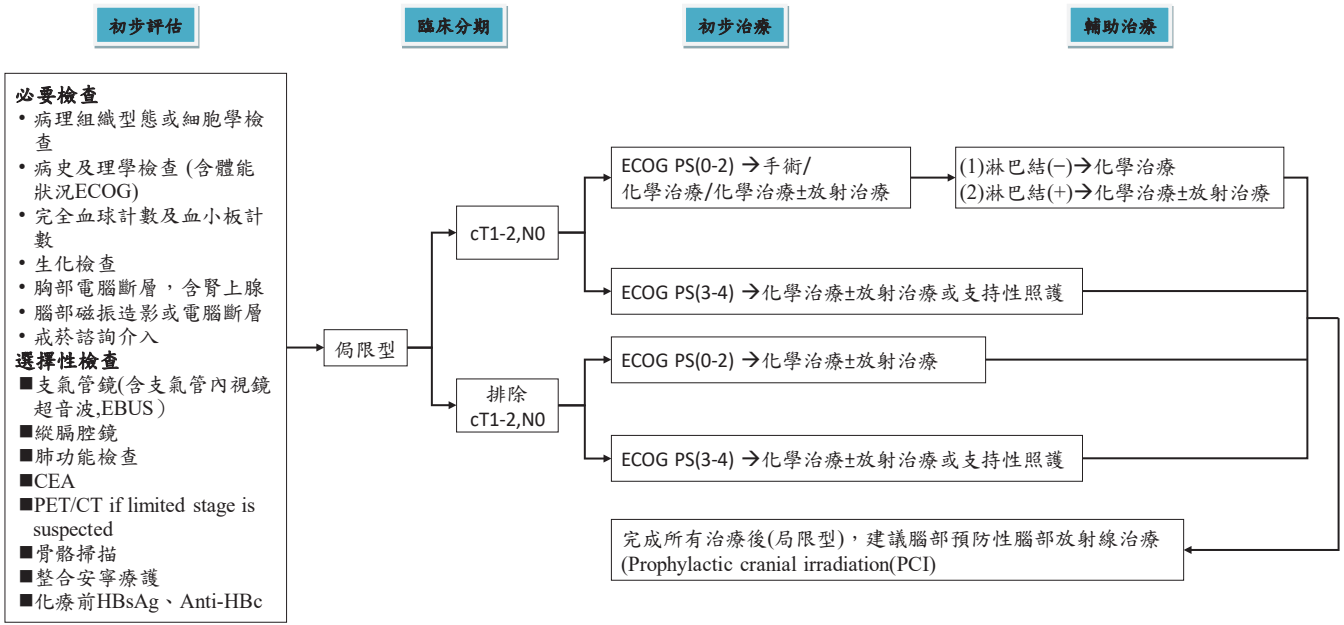
※ **備註:**

1. Elderly or poor performance status：cisplatin omitted
2. Cisplatin 若改成 Carboplatin, 劑量為 (CCr+25) x AUC, AUC = 4-6
3. Bevacizumab 7.5 mg/kg 可與 chemotherapy 並用於第一線治療, 但限於non-squamous cell carcinoma, no hemoptysis, no untreated CNS mets
4. Pemetrexate/cisplatin用於第一線治療以及 pemetrexate用於第二線治療都僅限於non-squamous cell carcinoma

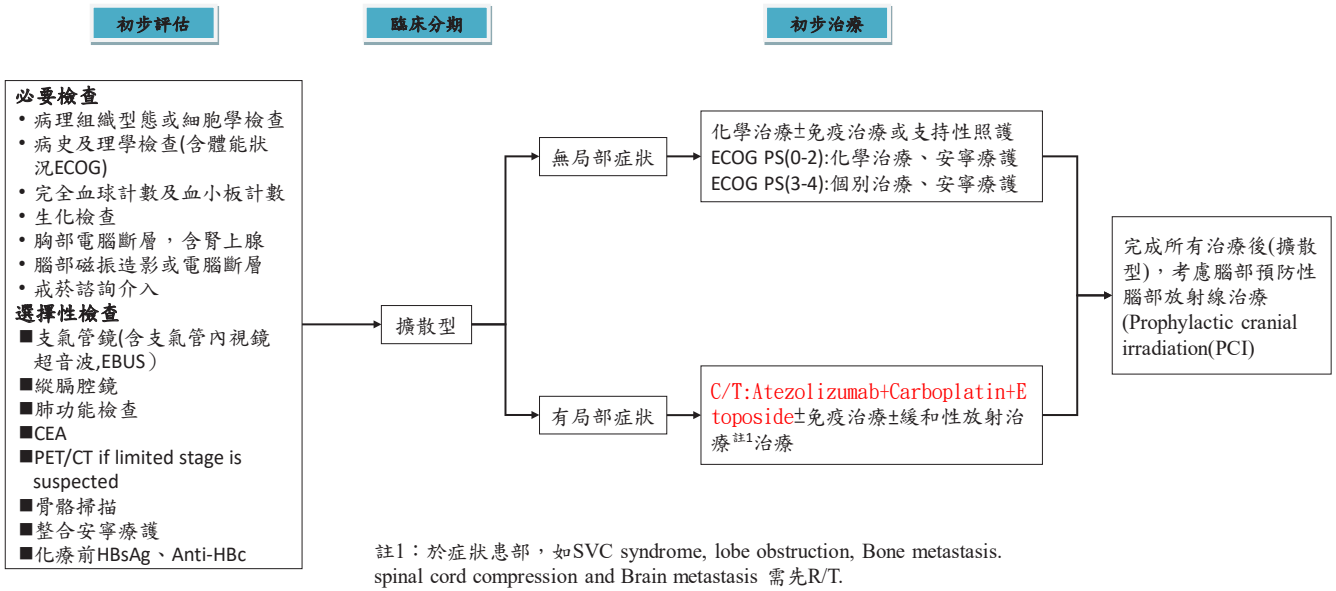
*** 病患若參加本院 IRB 同意之臨床試驗，則依該臨床試驗之治療計畫進行**

小細胞肺癌臨床治療準則

小細胞肺癌診療指引共識-1



小細胞肺癌診療指引共識-2



註1：於症狀患部，如SVC syndrome, lobe obstruction, Bone metastasis. spinal cord compression and Brain metastasis 需先R/T.

小細胞肺癌評估與治療原則

一. 整體評估：病理依據、日常體能狀態、體重減輕、胸部電腦斷層、抽菸史

1. 分期評估：建議依情況評估正子掃描、腦部電腦斷層或核磁共振及骨掃描。

   A. 正子掃描（PET/CT SCAN）：肺癌臨床分期的術前評估，至於安排時間點是在胸腔電腦斷層（chest-CT）後，懷疑侷限型時實施。

   B. 正子掃描或骨掃描發現骨頭影像異常，建議要進行骨骼X光或核磁共振評估。

   C. 治療上以化療為主，若進展至擴散期(Extensive Stage)建議全身性化學治療，並視狀況加緩和性放射治療。

二. 病理評估原則

1. 病理評估的目的包括：肺癌分期
2. 小細胞癌多數(95%)原發自肺，少數則來自肺外器官，二者有類似之臨床和生物特性，極易廣泛轉移。小細胞癌細胞通常Keratin 及至少一種之neuroendocrine differentiation markers (CD56, synaptophysin或 chromogranin A)呈陽性免疫染色。

   註：EGFR：Epidermal Growth Factor Receptor

   TKI：Tyrosine Kinase Inhibitor

   TTF-1：Thyroid transcription factor-1

三. 治療原則

小細胞肺癌分為侷限型及擴散型治療以化療為主

1. 侷限型：

(1) T1-2N0M0(經PET及縱膈腔鏡檢)可手術治療。

(2) 若Performance佳，ECOG:0-2分，可同時給予放射線治療。

(3) 因肺癌引致Performance不佳，予化學治療再視情況予放射線治療。

(4) 因其他病症致Performance不佳，則予個別治療(individualized)或Palliative治療。

2. 擴散型

(1) 化學治療

(2) 如SVC syndrome、骨、脊髓轉移、肺葉支氣管阻塞，則有症狀先放射線治療，否則先化學治療。

(3) 無法承受化學治療則個別治療。

四. 小細胞肺癌放射線治療政策與程序指引

請參閱本院放射線治療指引。

同步化學併放射治療(CCRT)原則：

1. NSCLC dose：up to 60-66 Gy/1.8-2 Gy/day
2. SCLC年齡小於等於70歲，PS：0~1，接受CCRT其 DOSE：50~60 Gy/1.8Gy/day
   A. 排程：放療自開始持續做至50~60 Gy，而化學治療自開始先做三個療程後休息，須重新評估病患治療反應，之後再依實際情形安排接續的治療。
   B. 如有CR →加做預防性全腦放射治療 (prophylactic cranial irradiation, PCI)，DOSE：30Gy/ 2Gy/ day x15 fractions(一天一次共十五次）
   C. 如有PR →持續化學治療，但不做PCI
3. SCLC年齡大於70歲，PS：0~1，採用接續性化放療(sequential chemoradiotherapy)，DOSE：50~60 Gy/1.8Gy/day
   排程：連續的三個療程的化學治療後休息，在二週內重新評估
   A. 如有CR→加做PCI, DOSE：30Gy/ 2Gy/ day x15 fractions(一天一次共十五次)
   B. 如有PR →加做胸腔的放療及三個療程的化學治療，但不做PCI
   C. 如有PD →接受第二線化療。

肺癌抗癌藥物治療用藥準則－小細胞肺癌（臨床試驗病例除外）

Primary or Adjuvant chemotherapy (extensive stage)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
I001	Etoposide+ Cisplatin	Etoposide	100	IVD	4h	D1-3	Q3W	4	1
		Cisplatin	75	IVD	1h	D1			
I001-2	Etoposide+ CARBOplatin	Etoposide	100	IVD	4h	D1-3	Q3W	4+2	8
		Carboplatin	AUC5	IVD	1h	D1			
	Atezolizumab+ Carboplatin+ Etoposide	Atezolizumab	1200mg	IVD		D1	Q3W	4	3
		Carboplatin	AUC5	IVD		D1			
		Etoposide	100	IVD		D1-3			
		Atezolizumab (maintenance)	1200mg	IVD		D1	Q3W		
	Durvalumab +Etoposide +Cisplatin	Durvalumab	1500mg	IVD	1h	D1	Q3W	4	9
		Etoposide	80-100	IVD	4h	D1-3			
		Cisplatin	75-80	IVD	1h	D1			
	Durvalumab +Etoposide +Carboplatin	Durvalumab	1500mg	IVD	1h	D1	Q3W	4	9
		Etoposide	80-100	IVD	4h	D1-3			
		Carboplatin	AUC5-6	IVD	1h	D1			

Primary or Adjuvant chemotherapy (limited stage)

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
I001	Etoposide+ Cisplatin	Etoposide	100	IVD	4h	D1-3	Q3W	4	2
		Cisplatin	75	IVD	1h	D1			
I001-2	Etoposide+ CARBOplatin	Etoposide	100	IVD		D1-3	Q3W	4	7
		Carboplatin#	AUC5	IVD		D1			

Subsequent systemic chemotherapy

化療系統處方代碼	處方	藥名	劑量 (mg/m^2)	途徑	輸注時間	天數	頻率	療程數	文獻
I002	Topotecan (Hycantin)	Topotecan	1.5	IVD	1h	D1-5	Q3W	4-6	4
	Topotecan (Oral)	Topotecan	2.3	PO		D1-5	Q3W		5
	CAV	Cyclophosphamide	1000	IVD		D1	Q3W	4	6
		Doxorubicin	45	IVD		D1			
		Vincristine	2mg	IVD		D1			

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