肺癌診療指引

胸腔腫瘤暨食道癌多專科團隊

2008 年 09 月制定
2009 年 05 月修訂
2010 年 09 月修訂
2011 年 12 月修訂
2012 年 11 月修訂
2013 年 07 月修訂
2014 年 12 月修訂
2015 年 12 月修訂
2016 年 07 月修改

參考資料：

Non-small Cell Lung Cancer NCCN Guidelines V4.2016

Small Cell Lung Cancer NCCN Guidelines V1.2016

全民健康保險藥品給付規定 行政院衛生署一百零五年版

Physicians' Cancer Chemotherapy Drug Manual 2010

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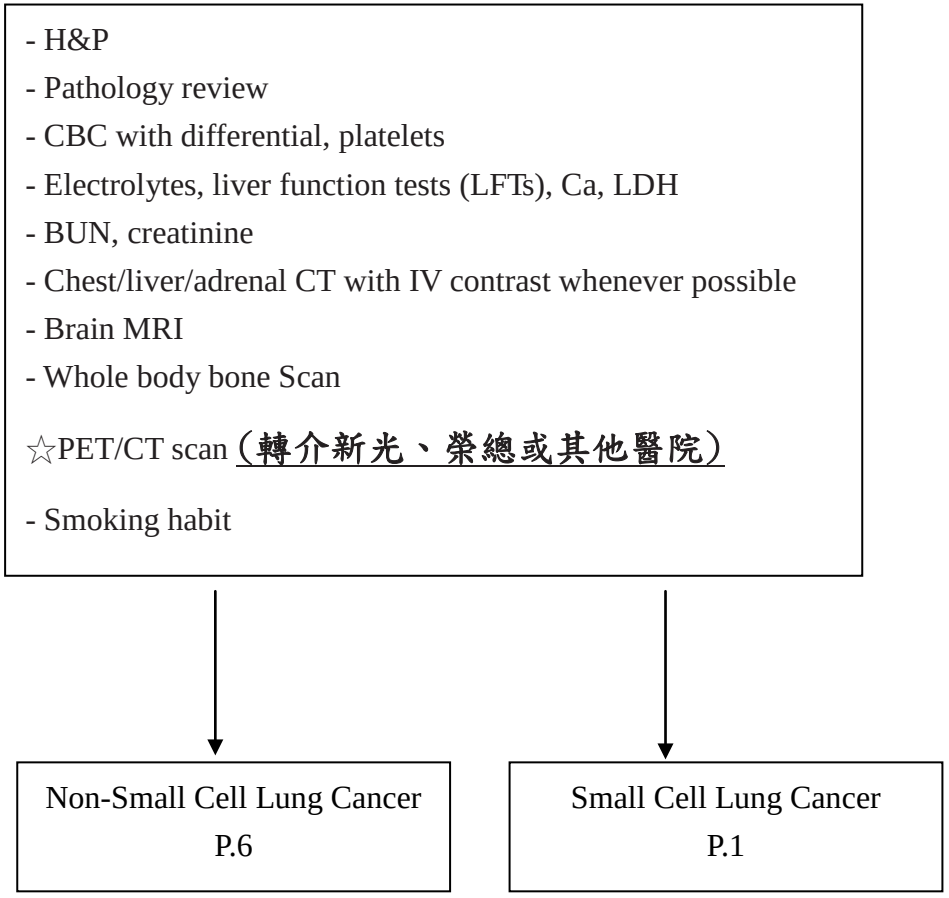
Non Small Cell Lung Cancer

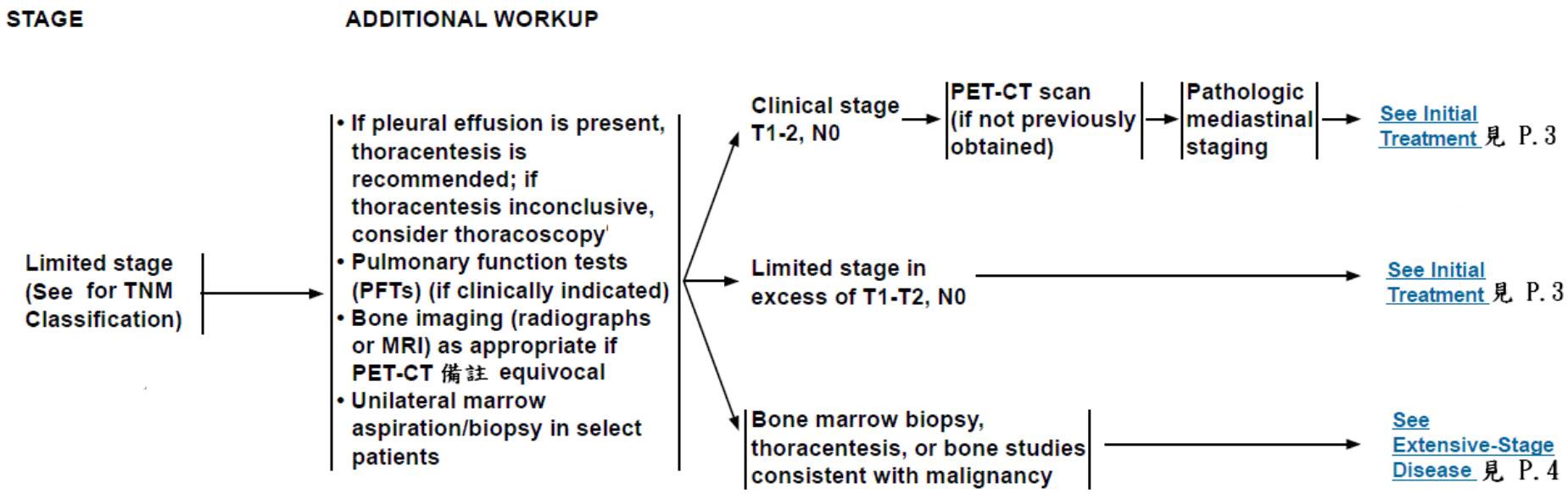
Surgical exploration and resection + mediastinal lymph node dissection or systematic lymph node sampling

Stage IA		Stage IB	Stage IIA	Stage IIA	Stage IIB	Stage IIIA	
T1ab, N0		T2a, N0	T2b, N0	T1ab-T2a, N1	T3, N0; T2b, N1	T1-3, N2; T3 [>7 cm], N1	
Margins(-) R0	Margins(+) R1.R2	Margins(-) R0	Margins(+) R1.R2	Margins(-) R0	Margins(+) R1.R2	Margins(-) R0	Margins(+) R1.R2 or nodal ECE
Observe	Reresection(preferred) or RT	Observe	Reresection(preferred) + C/T or C/T ±RT (C/T for stage IIA)	C/T	Reresection + C/T or CCRT +C/T	C/T or RT(N2 only)	CCRT

Initial Evaluation



Small Cell Lung Cancer



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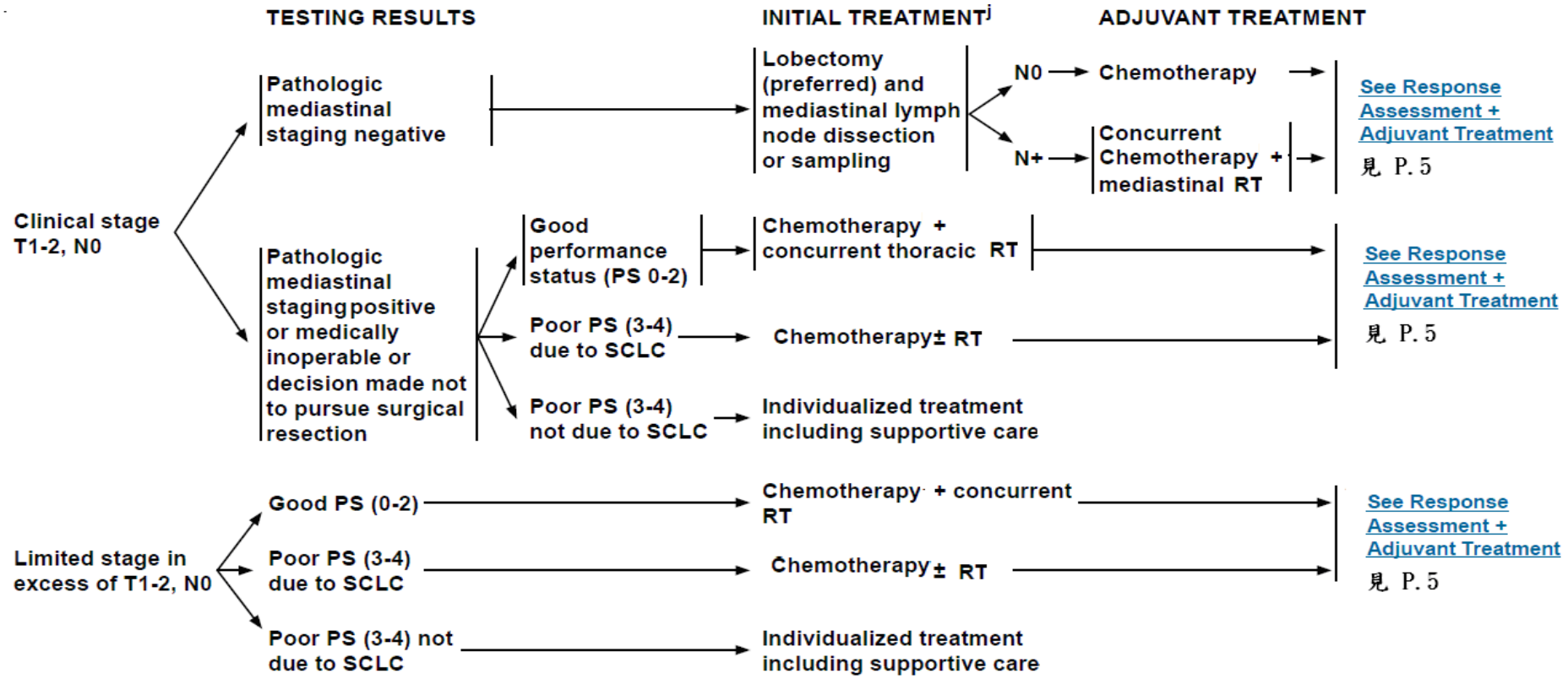
Small Cell Lung Cancer



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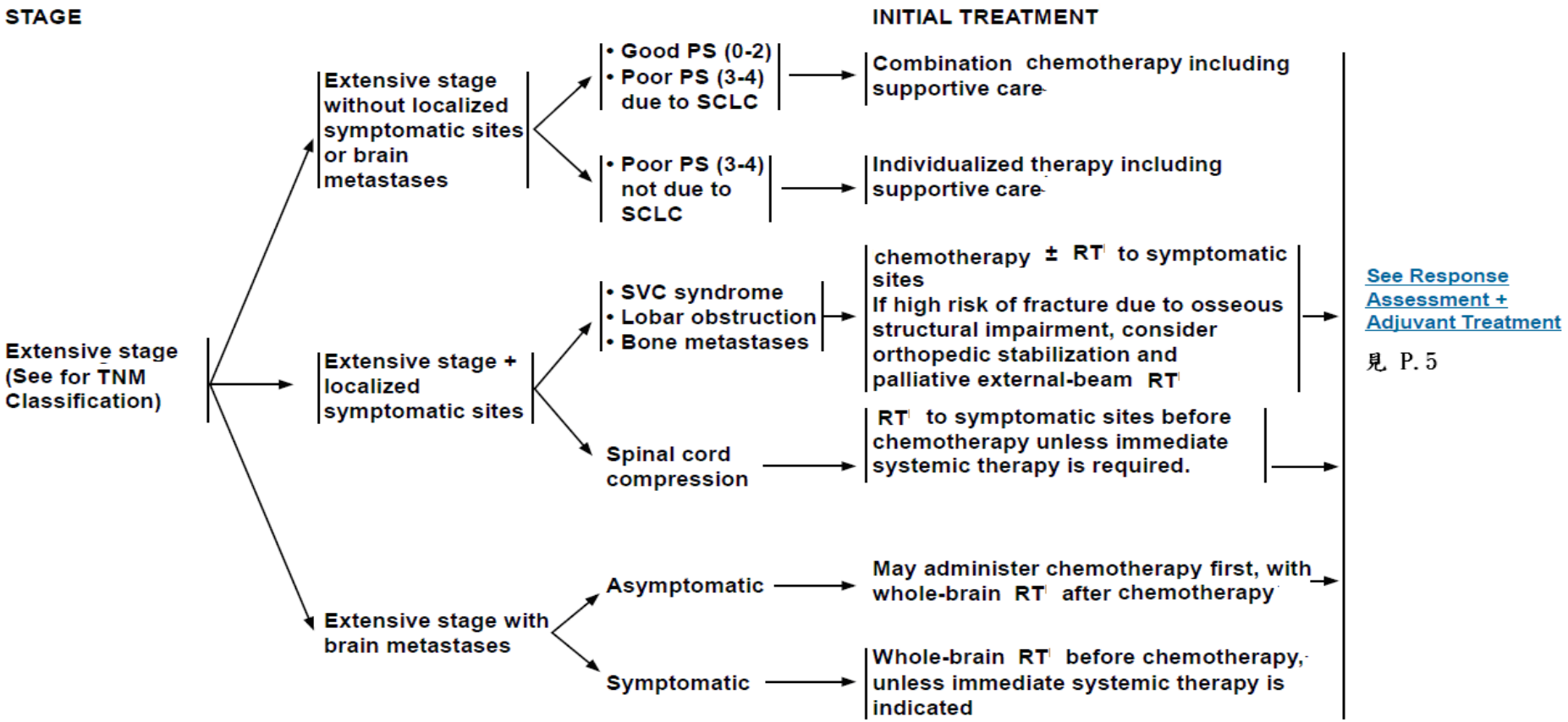

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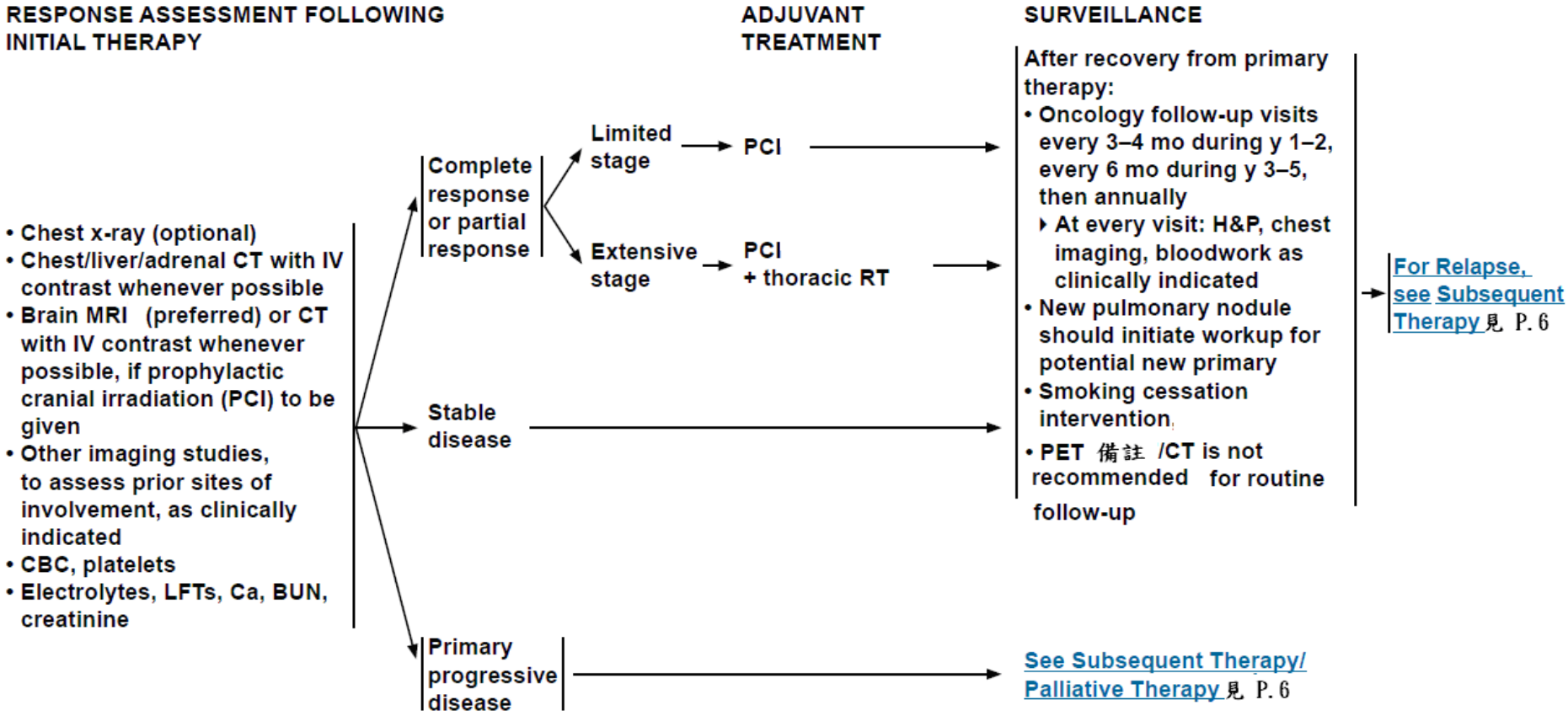

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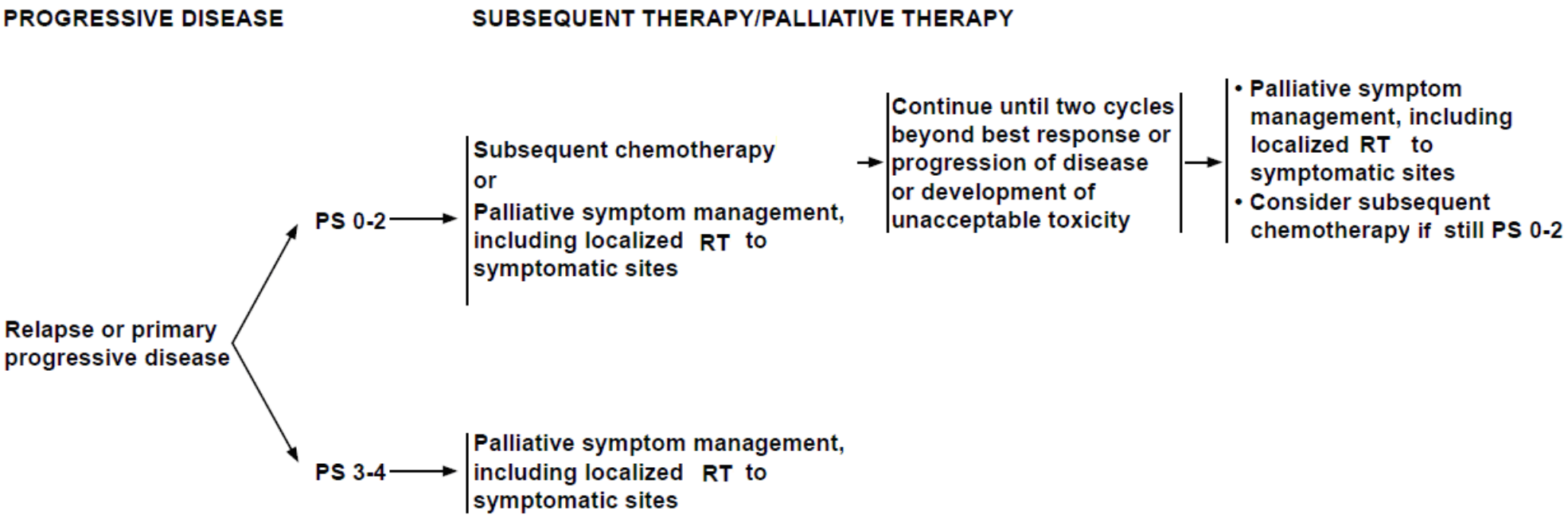
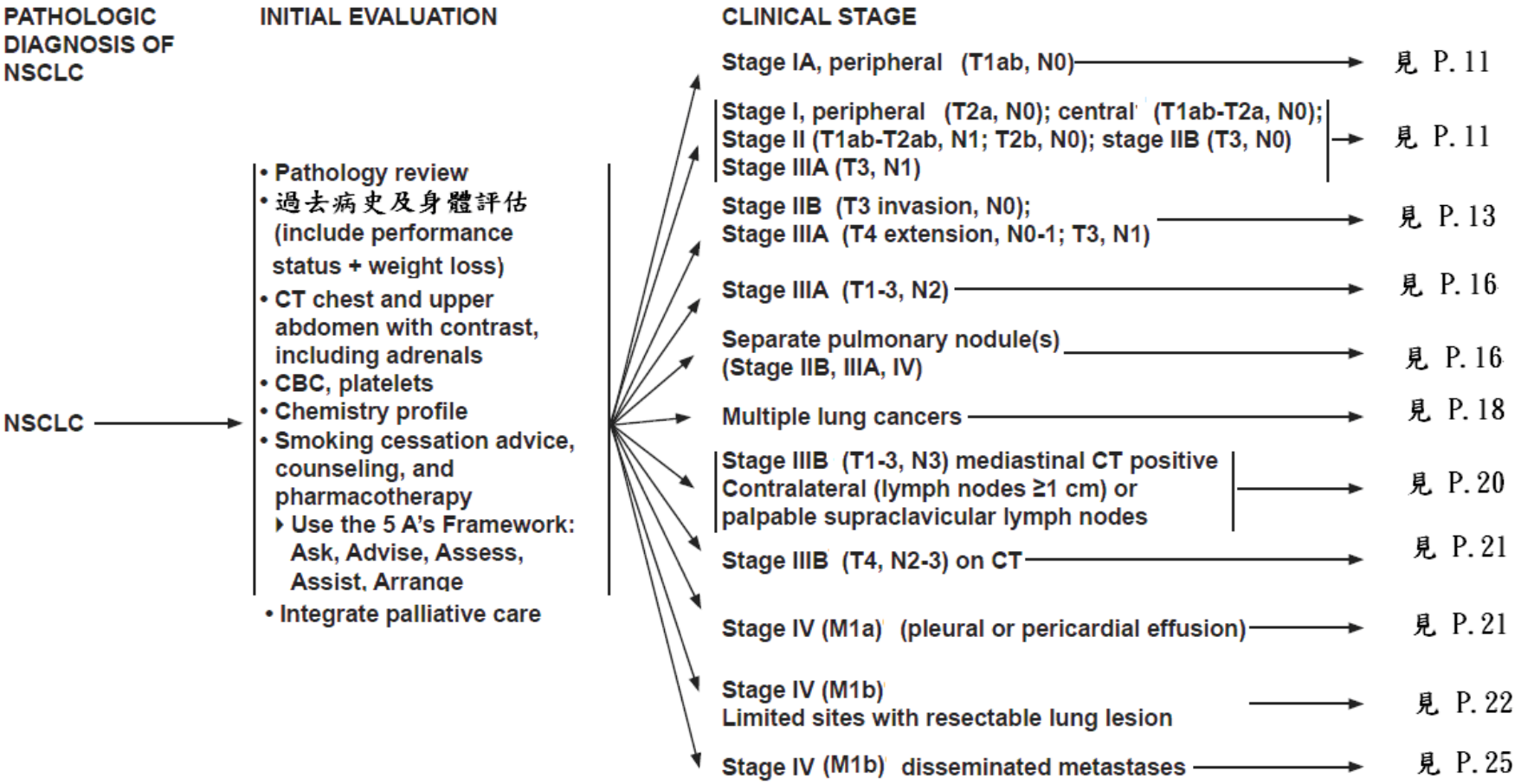
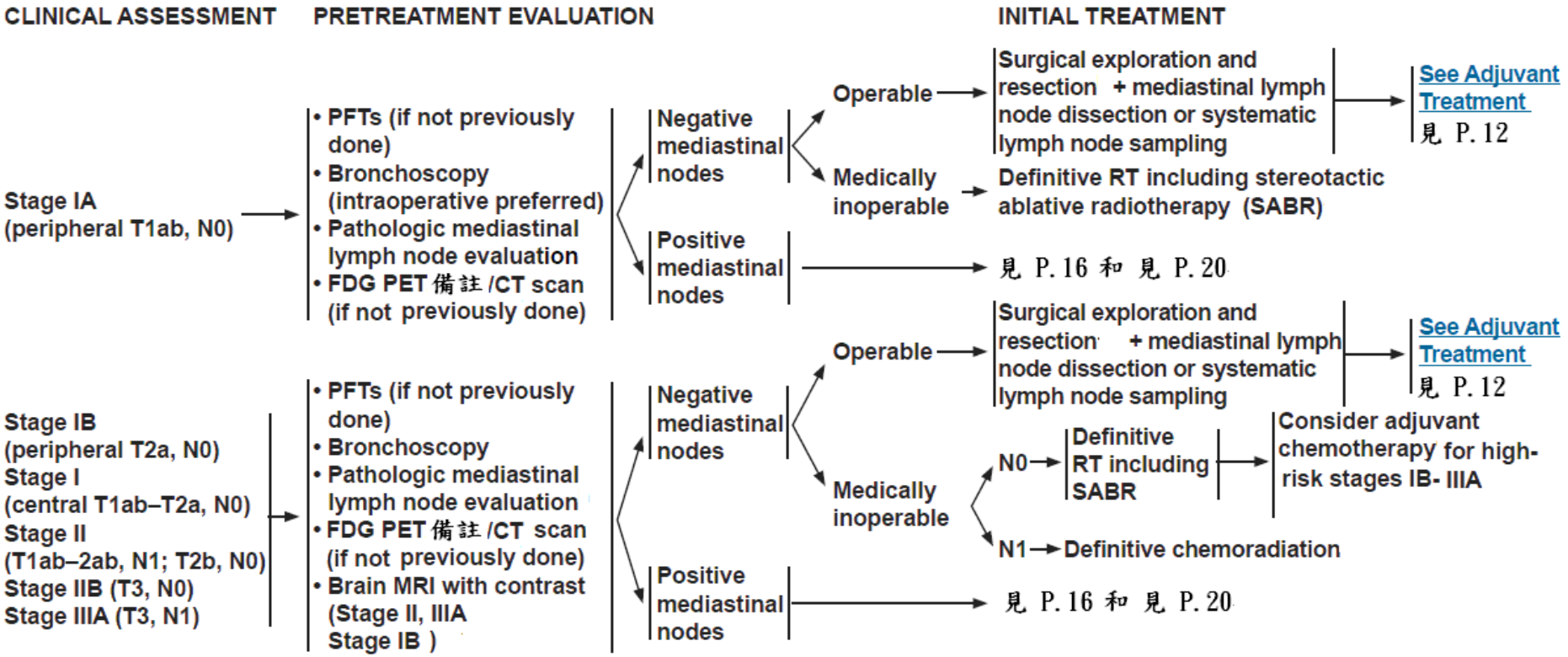
Small Cell Lung Cancer



Non Small Cell Lung Cancer



Non Small Cell Lung Cancer



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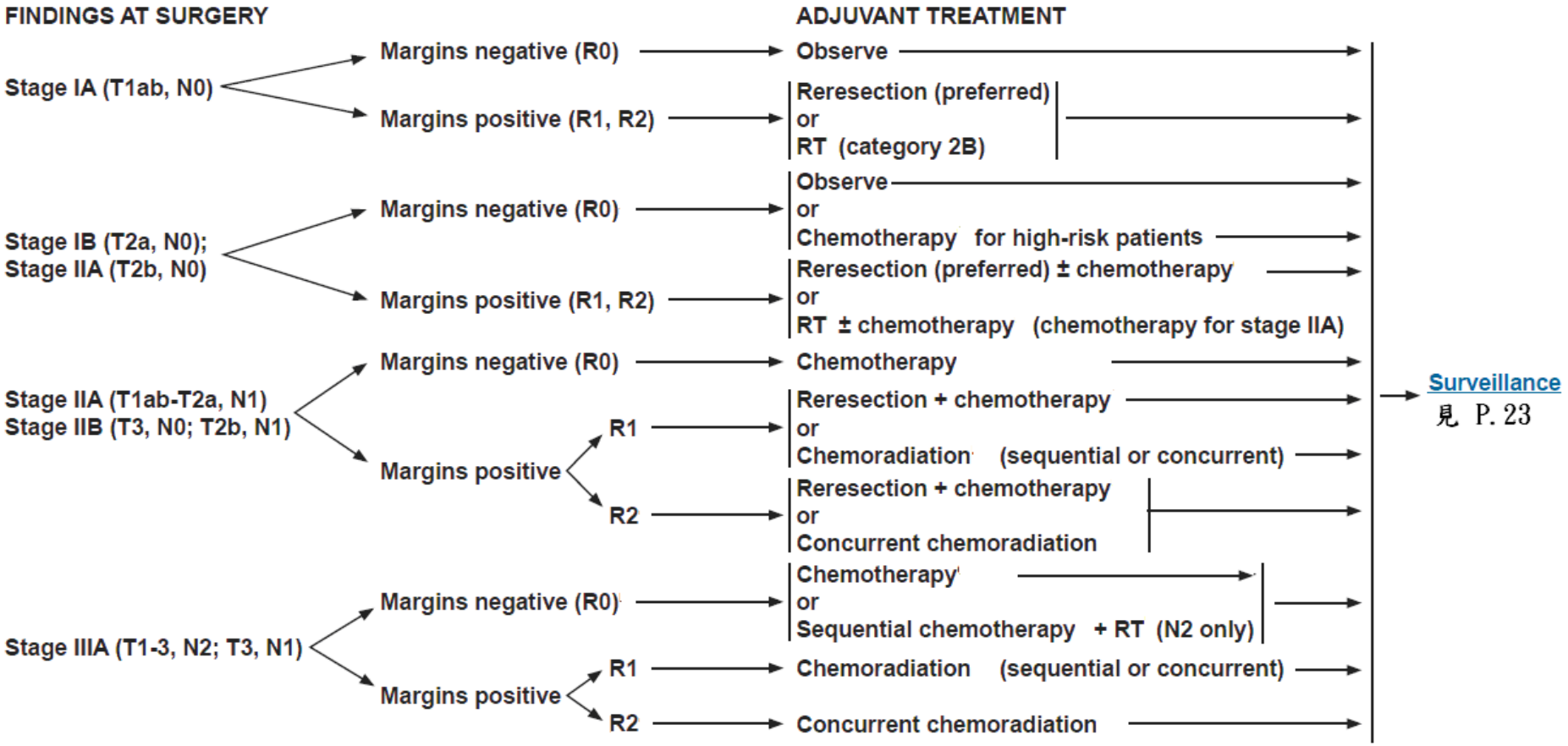

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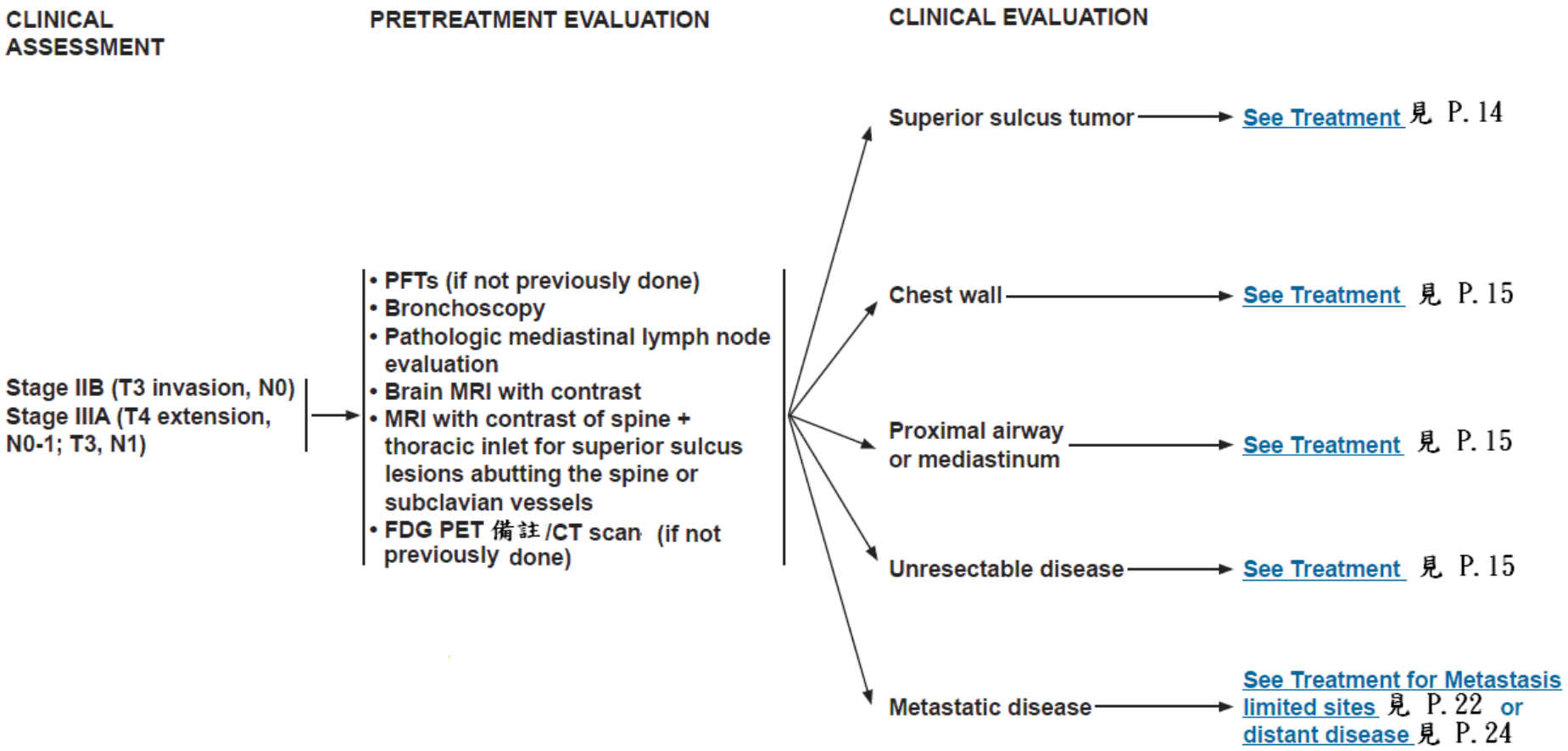

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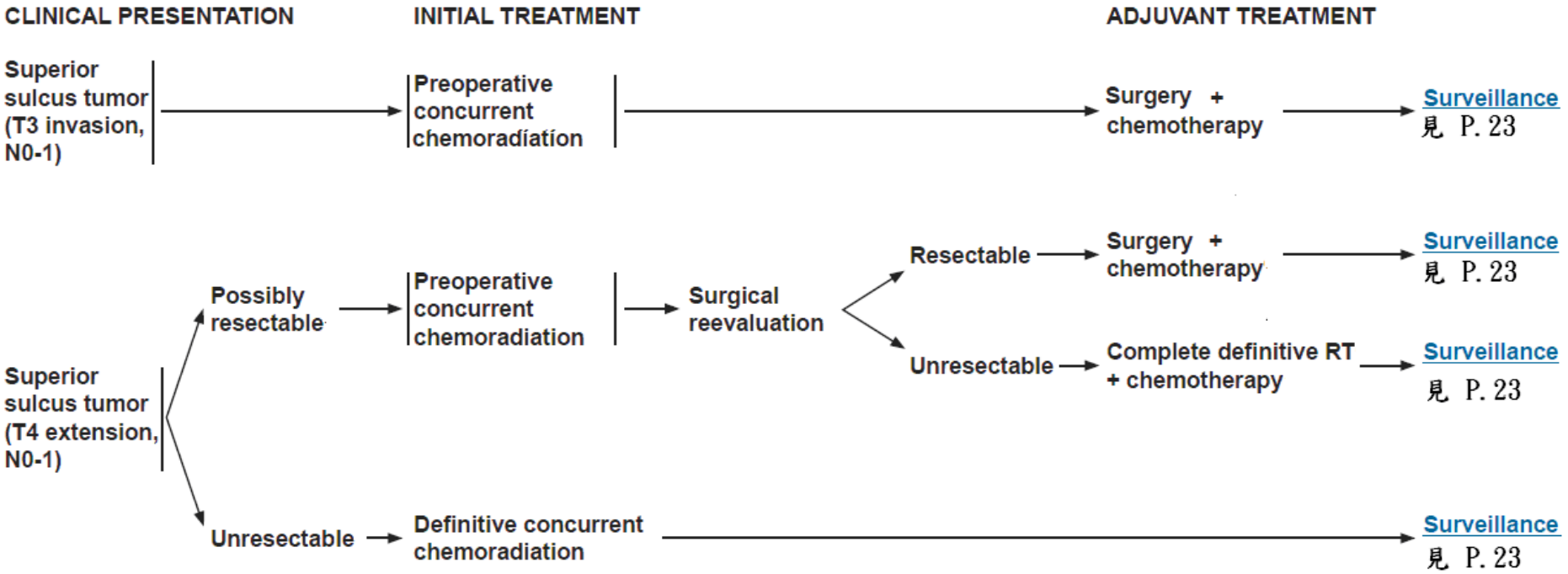
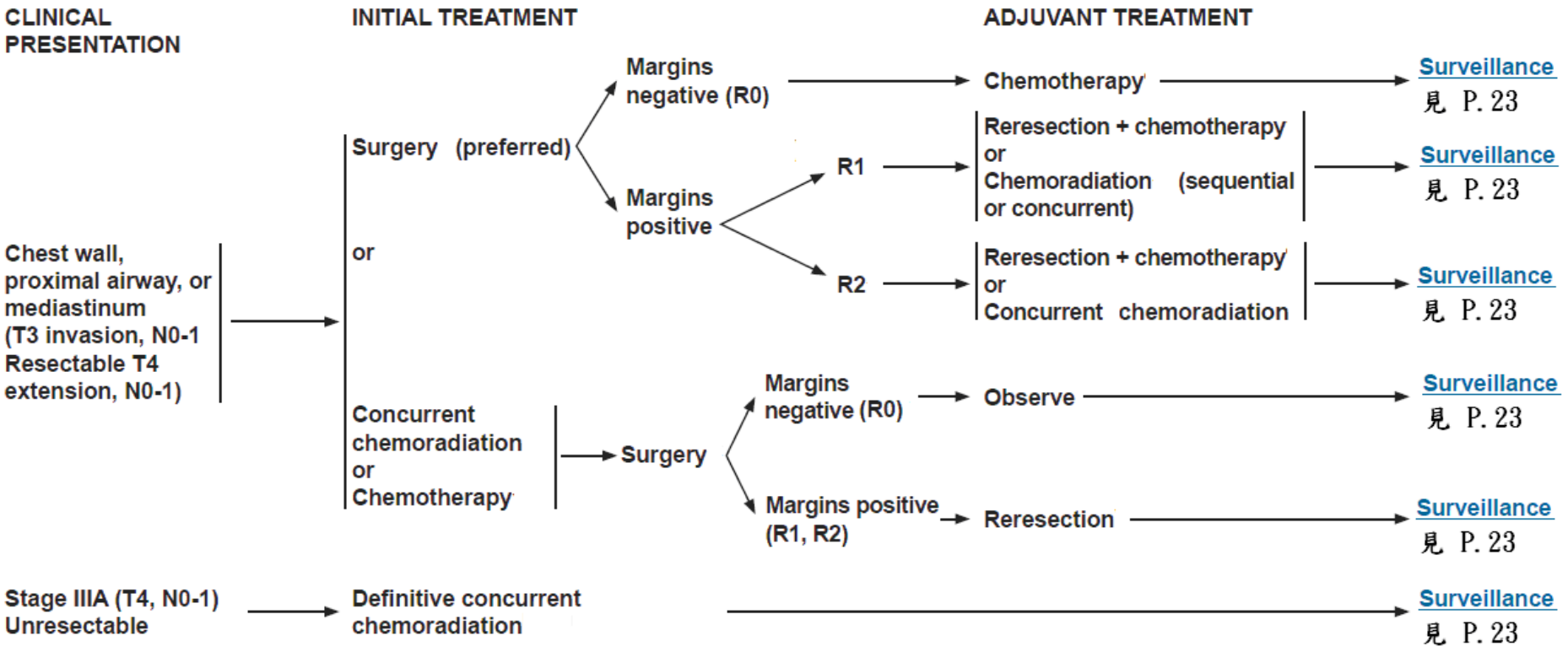
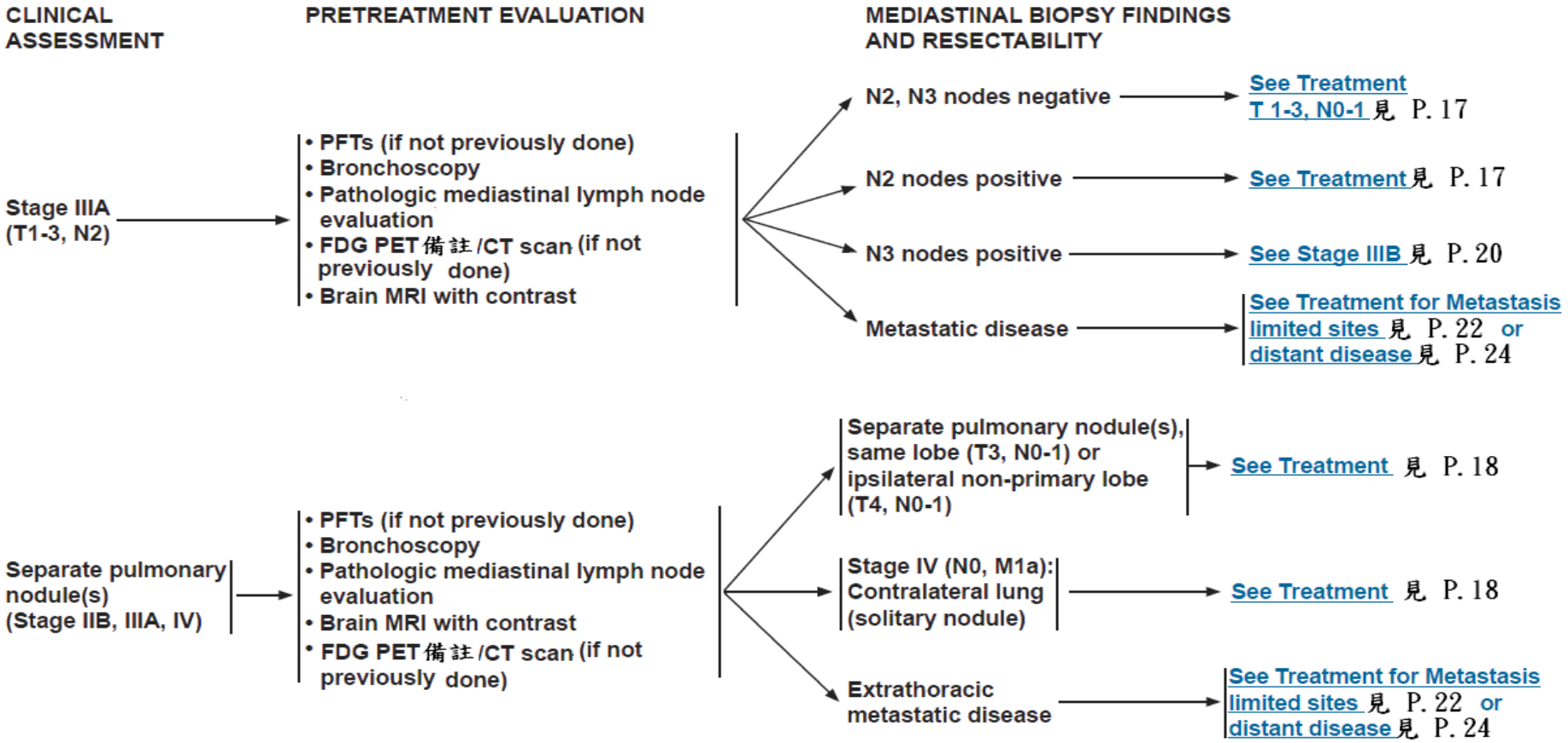


Non Small Cell Lung Cancer



Non Small Cell Lung Cancer



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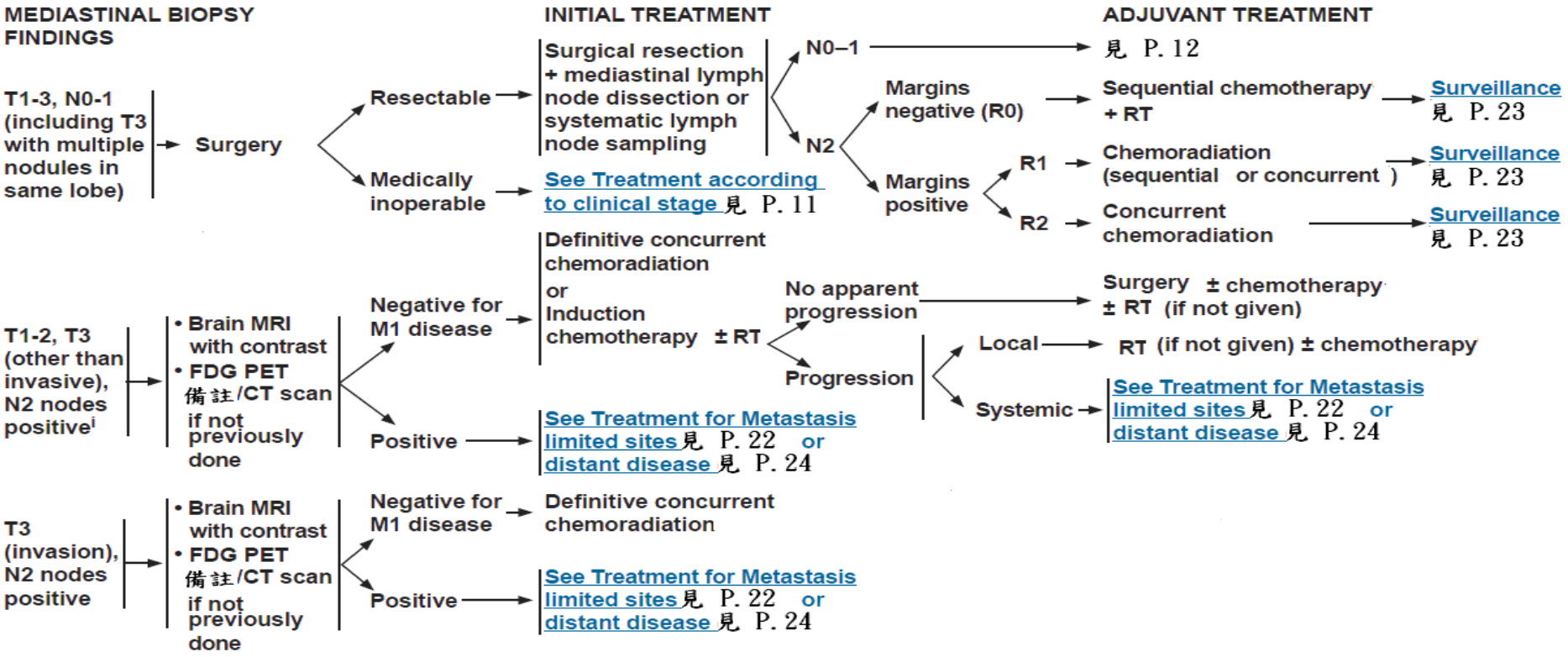
Non Small Cell Lung Cancer



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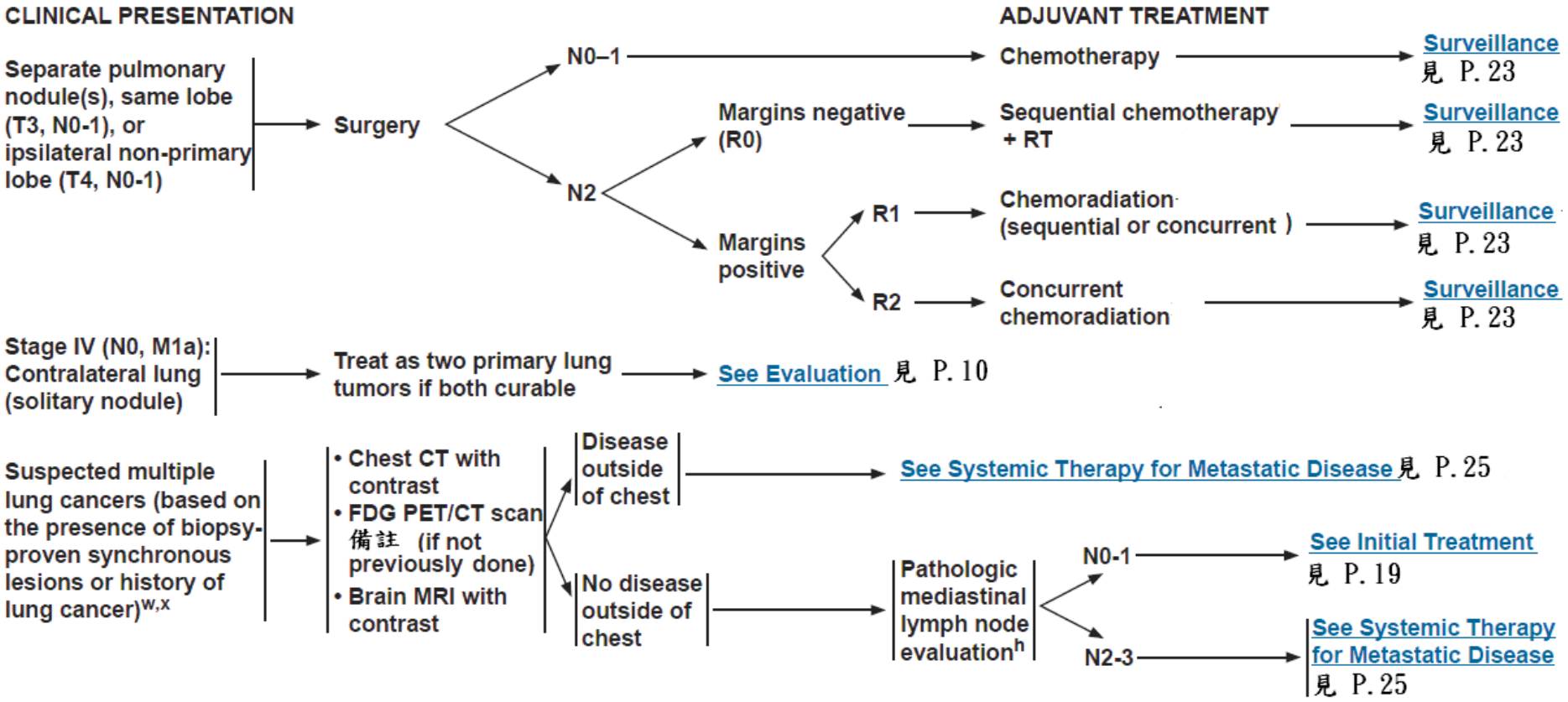
Non Small Cell Lung Cancer



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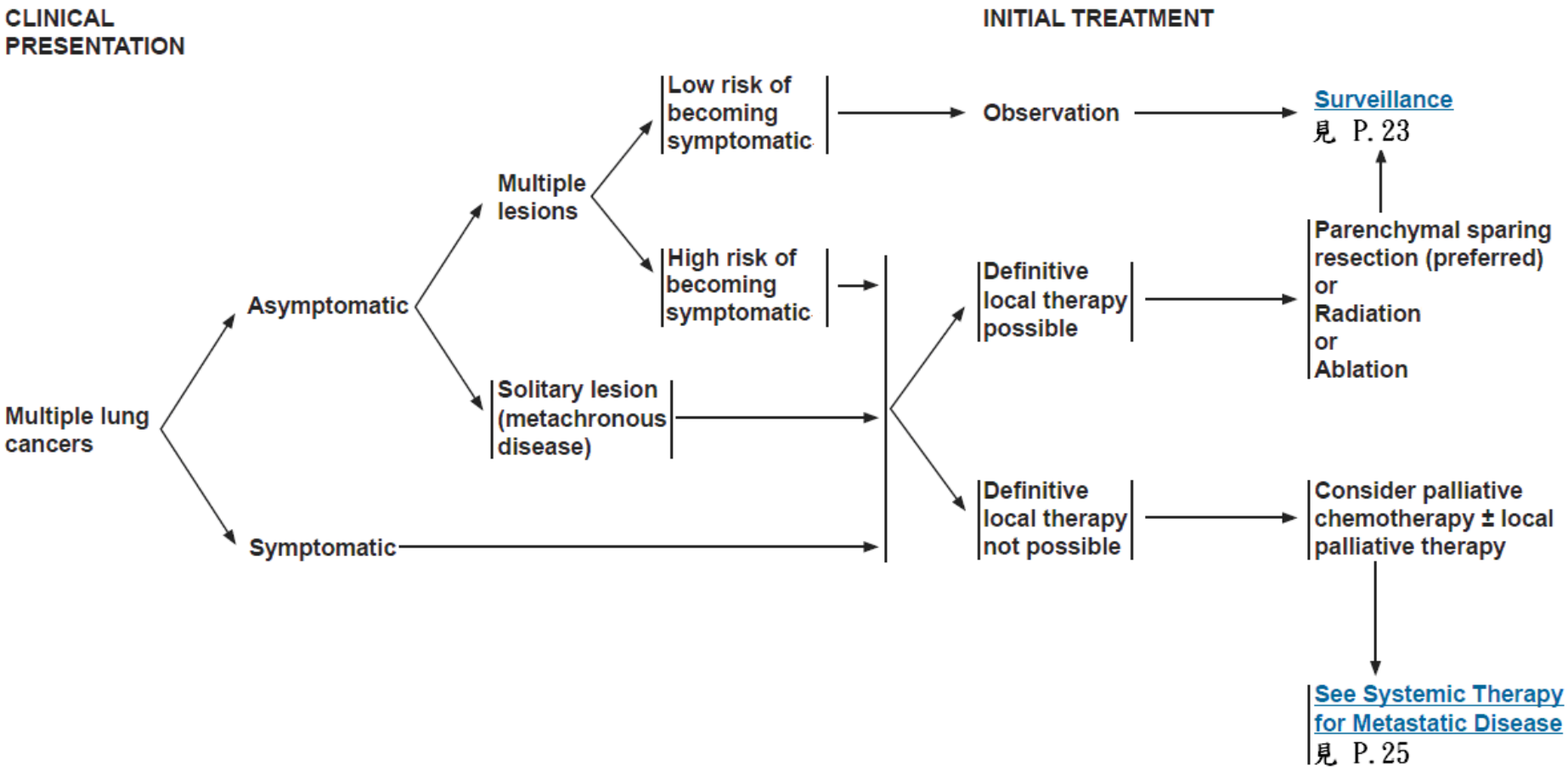
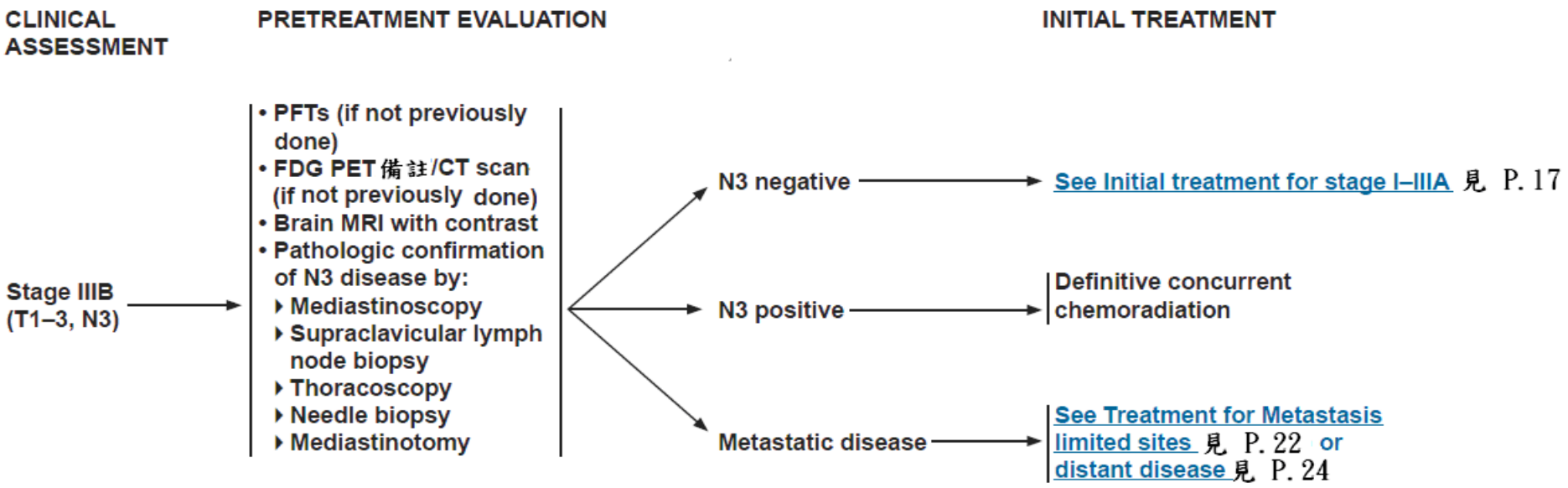
Non Small Cell Lung Cancer



Non Small Cell Lung Cancer



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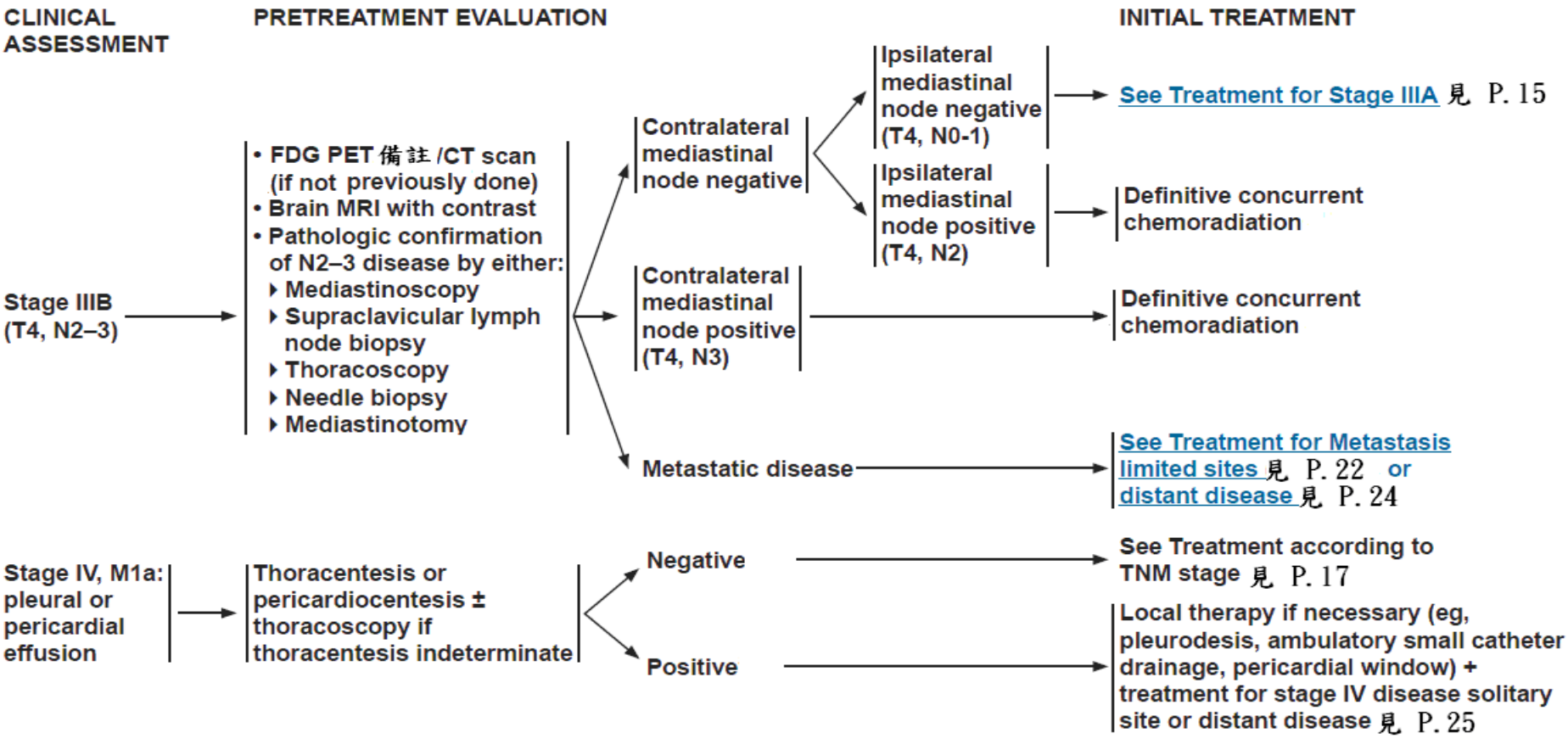

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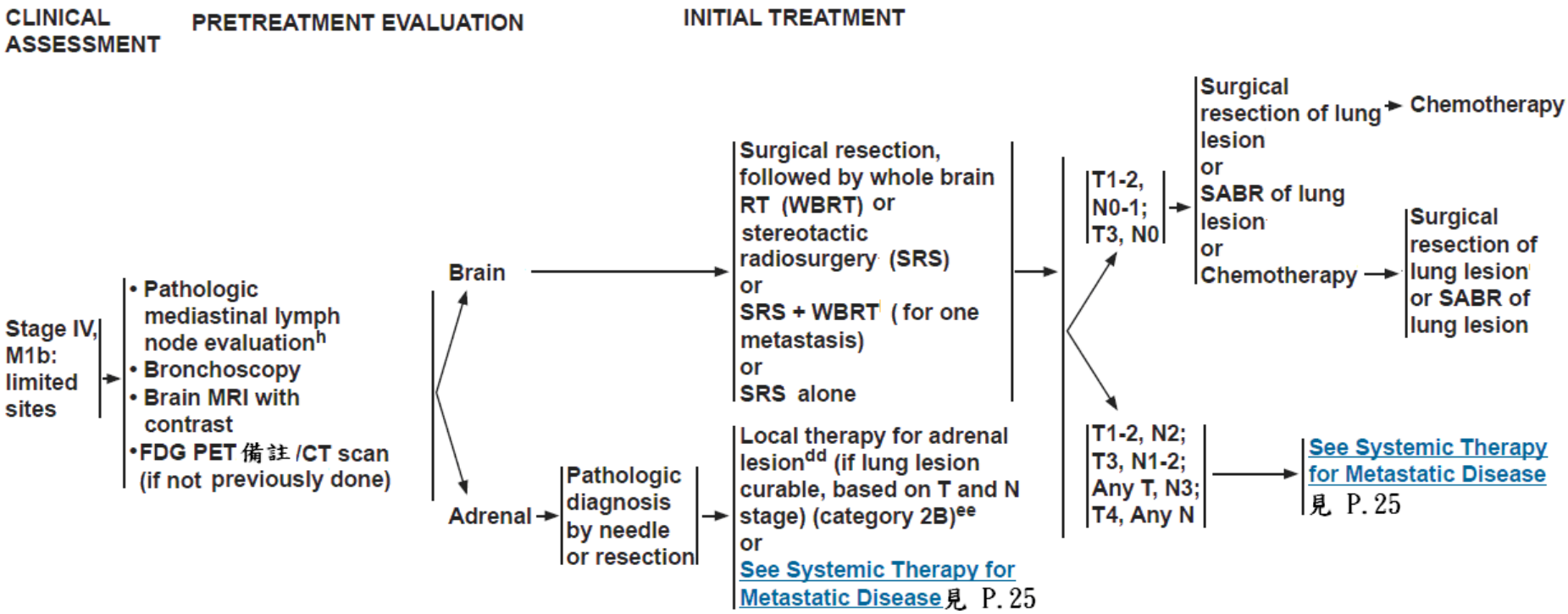

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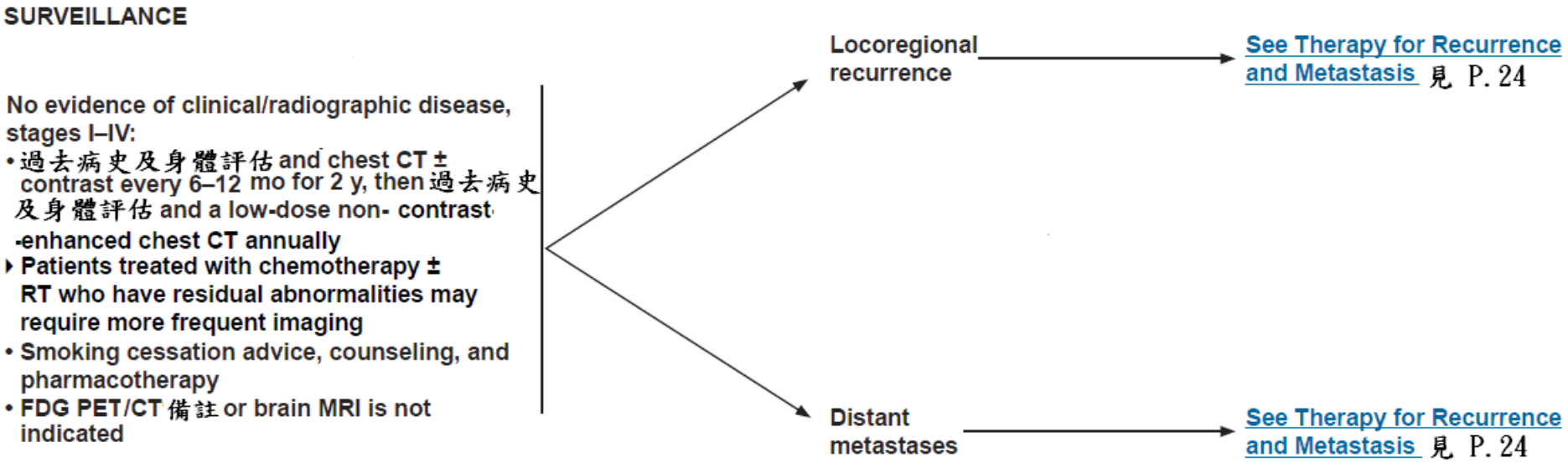
Non Small Cell Lung Cancer



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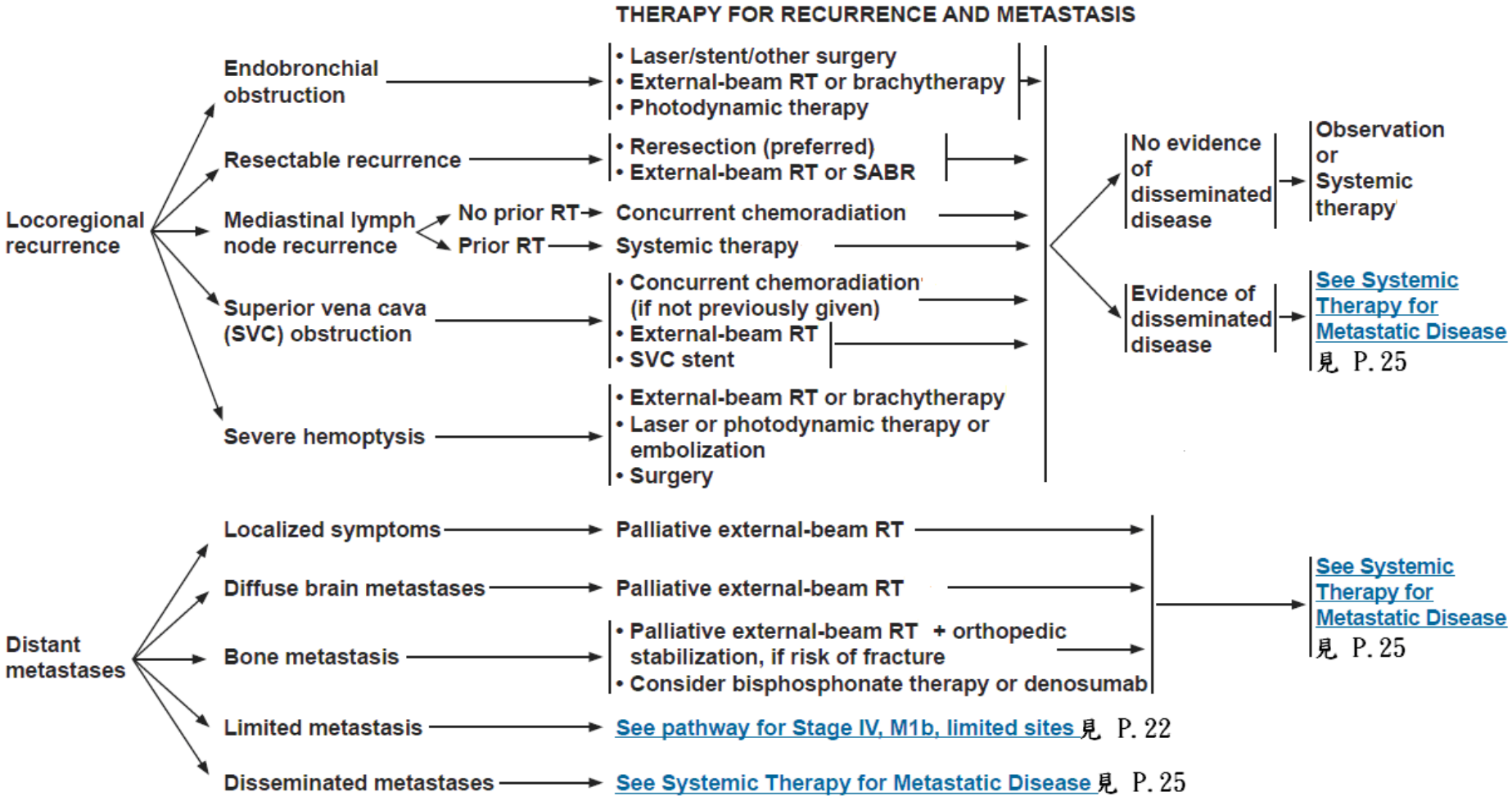
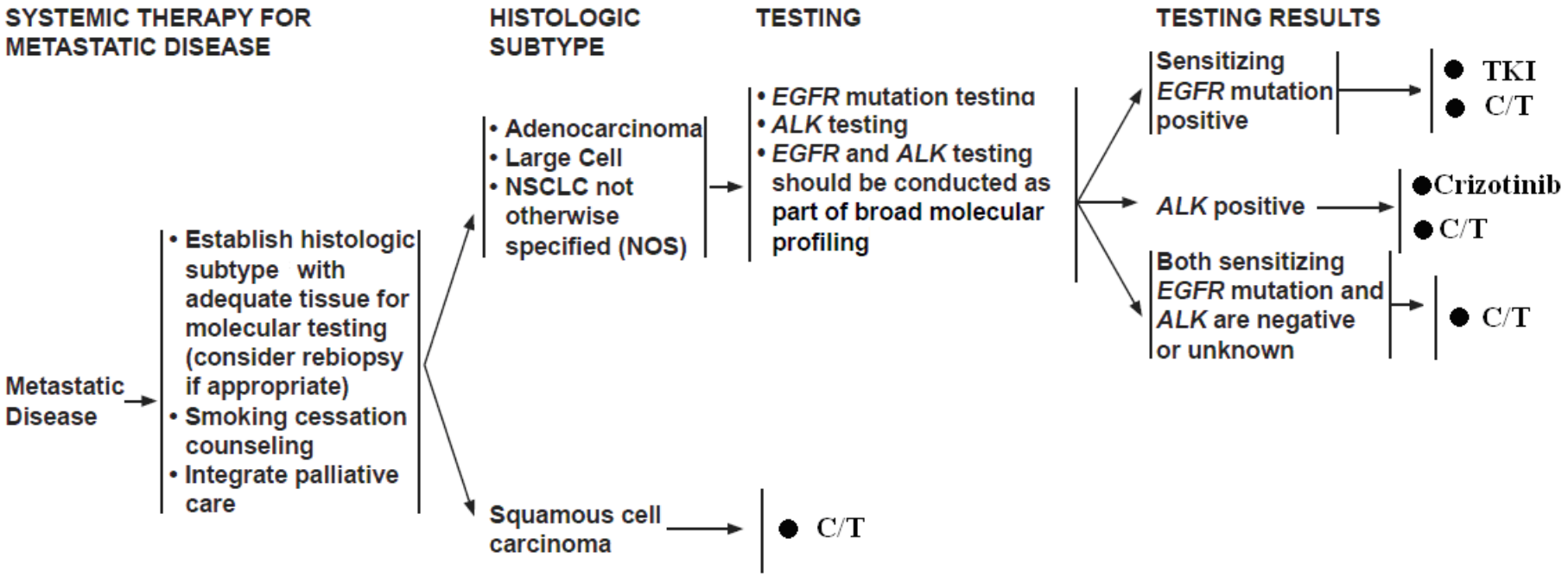


Non Small Cell Lung Cancer



CHEMOTHERAPY REGIMENS FOR ADJUVANT THERAPY

(Non-Small Cell Carcinoma)

adjuvant

Chemotherapy regimen for **adjuvant** therapy (for pathological stage II – IIIA)

Cisplatin 50 mg/m ^{2} IV on D1、8 + Vinorelbine 25 mg/m ^{2} IV on D1, D8,D15,D22 every 28days x 4 courses [1]

Oral chemotherapy regimen for **adjuvant** therapy (for Adenocarcinoma + pT2 with tumor size > 3cm)

UFUR 300 – 400 mg PO QD (3-4 capsules PO/day) for up to 2 years

★ 當腎功能不佳 **CCR<60** 之惡性腫瘤病患可以使用 **Carboplatin (CCR+25)X AUC , AUC 4-6**

自費見 P.40-45 健保給付規範

CHEMOTHERAPY REGIMENS USED WITH RADIATION THERAPY

(Non-small cell carcinoma)

CCRT

Concurrent Chemo-radiotherapy **(CCRT)** for locally advanced disease (for stage IIIA – IIIB)

Cisplatin 80mg/m ^{2} IV on D1 + Gemcitabine 1250mg/m ^{2} IV on D1,8；Thoracic radiotherapy started concurrently with Cisplatin 80mg/m2 iv on D21 and D 42 +Etoposide 100mg/m2 iv on D21-23, 42-44 [23]

Cisplatin 75mg/m ^{2} IV on D1 + Pemetrexed 500 mg/m ^{2} (自費見 P. 40-45)IV on D1 Q3W x 3 cycles [10]

若 CCr < 60 ml/min，可考慮使用以下處方

Carboplatin AUC 5 IV on D1 + Pemetrexed 500 mg/m ^{2}(自費見 P. 40-45) IV on D1 Q3W x 4 cycles [9]

★見P. 40-45 非小細胞肺癌健保化療藥物適用健保給付規範

CHEMOTHERAPY REGIMENS USED Palliative THERAPY

(Non-small cell carcinoma)

Palliative

First line therapy for **recurrent or metastatic** disease (stage IV)

[AC regimen] Cisplatin 60-75 mg/m 2 IV on D1 + Pemetrexed 500 mg/m 2 IV on D1 Q3W [16]
[G-G-GC regimen] Gemcitabine 1000-1250 mg/m ^{2} IV on D1, D8, D15 + Cisplatin 60-75mg/m ^{2} IV on D15 Q4W [2, 11]
[DC regimen] Cisplatin 60-75 mg/m ^{2} IV on D1 + Docetaxel 60-75 mg/m ^{2} IV on D1 Q3W [11]
[NC-N regimen] Cisplatin 60-75 mg/m ^{2} IV on D1 + Vinorelbine 60-80 mg/m^2 PO Q4W [4]

If EGFR sensitizing mutation(+)

Erlotinib 150 mg PO daily until disease progression [17]
Afatinib 40 mg PO daily until disease progression [18]
Gefitinib 250 mg PO daily until disease progression [19]

If ALK gene rearrangement(+)

Crizotinib 250 mg（自費或有條件健保見 P. 36 及 P. 51-52）PO BID until PD; dosing interruption and/or dose reduction to 200 mg PO BID may be required, based on safety and tolerability; decrease to 250 mg PO QD if further reduction is needed [20]

★見P. 40-45 非小細胞肺癌健保化療藥物適用細胞型態一覽表及健保給付規範

Bevacizumab(自費) 7.5 mg/kg Q3W 可與 chemotherapy 併用於第一線治療，但限用於 non-squamous, no hemoptysis [6, 14, 15]

Second line therapy for recurrent or metastatic disease (stage IV)

Docetaxel 60-75 mg/m ^{2} IV on D1 Q3W or 35 mg/m ^{2} IV on D1, D8, D15 Q4W (goal: 4-6 cycles) [21]
Pemetrexed 500 mg/m ^{2} IV on D1 (non-squamous histology) Q3W (goal: 4-6 cycles) [22]
Erlotinib 150 mg PO daily until disease progression [3]

If ALK gene rearrangement(+)

Crizotinib 250 mg PO BID until PD(第一線使用需自費，含鉑化療後，可申請健保事前審查，見 P. 36 及 P.51-52) [20]

Third line therapy for recurrent or metastatic disease (stage IV)
Erlotinib 150 mg PO daily until disease progression [3]

★見P. 40-45非小細胞肺癌健保化療藥物適用細胞型態一覽表及健保給付規範

備註:

1. Elderly or poor performance status: omit cisplatin
2. If CCr<60 or life threatening adverse effects : cisplatin 改為 carboplatin, dose: (CCr + 25) x AUC, AUC 4-6 [8, 12, 13]
3. Bevacizumab(自費) 7.5 mg/kg Q3W 可與 chemotherapy 併用於第一線治療，但限用於 non-squamous, no hemoptysis [6, 14, 15]
4. Pemetrexed/Cisplatin 用於第一線以及 pemetrexed 用於第二線治療，都僅限於 non-squamous histology, (plus folate and vitamin B12 supplements along with dexamethasone premedication for pemetrexed)
5. 病患若參加本院 IRB 同意之臨床試驗，則依臨床試驗之治療計畫進行

Reference for non-small cell lung cancer

1. Arriagada R, Dunant A, Pignon JP, et al. Long-term results of the international adjuvant lung cancer trial evaluating adjuvant Cisplatin-based chemotherapy in resected lung cancer. *J Clin Oncol*. 2010. 28:35-42.

2. Cortesi E, Ramponi S, Corona M, et al. Decreased myelotoxicity of gemcitabine and cisplatin in advanced non-small cell lung cancer (NSCLC) with cisplatin infusion on day 15. Lung Cancer. 2001. 31(2-3): 271-6.

3. National Comprehensive Cancer Network Non-Small Cell Lung Cancer V. 2.2013.

4. Fossella F, Pereira JR, von Pawel J, et al. Randomized, multinational, phase III study of docetaxel plus platinum combinations versus vinorelbine plus cisplatin for advanced non-small-cell lung cancer: the TAX 326 study group. *J Clin Oncol*. 2003. 21:3016-24.

5. Strauss GM, Herndon J, Maddaus MA, et al. Randomized clinical trial of adjuvant chemotherapy with paclitaxel and carboplatin following resection of stage IB non-small cell lung cancer (NSCLC): report of Cancer and Leukemia Group B (CALGB) protocol 9633. *2004 ASCO annual meeting, Abstract 7019*.

6. Herbst RS, O'Neill VJ, Fehrenbacher L, et al. Phase II study of efficacy and safety of bevacizumab in combination with chemotherapy or erlotinib compared with chemotherapy alone for treatment of recurrent or refractory non small-cell lung cancer. *J Clin Oncol*. 2007. 2007:4743-50.

7. Rusch VW, Giroux DJ, Kraut MJ, et al. Induction chemoradiation and surgical resection for superior sulcus non-small-cell lung carcinomas: long-term results of Southwest Oncology Group Trial 9416 (Intergroup Trial 0160). *J Clin Oncol*. 2007. 25:313-8.

8. Hanna NH, Neubauer M, Ansari R, et al. Phase III trial of cisplatin (P) plus etoposide (E) plus concurrent chest radiation with or without consolidation docetaxel (D) in patients (pts) with inoperable stage III non-small cell lung cancer (NSCLC): HOG LUN 01-24/USO-023. *2007 ASCO annual meeting, Abstract 7512*.

9. Govindan R, Bogart J, Stinchcombe T, et al. Randomized phase II study of pemetrexed, carboplatin, and thoracic radiation with or without cetuximab in patients with locally advanced unresectable non-small-cell lung cancer: Cancer and Leukemia Group B trial 30407. *J Clin Oncol*. 2011 Aug 10. 29(23):3120-5.

10. Vokes EE, Senan S, Treat JA, Iscoe NA. PROCLAIM: A phase III study of pemetrexed, cisplatin, and radiation therapy followed by consolidation pemetrexed versus etoposide, cisplatin, and radiation therapy followed by consolidation cytotoxic chemotherapy of choice in locally advanced stage III non-small-cell lung cancer of other than predominantly squamous cell histology. *Clin Lung Cancer*. 2009 May. 10(3):193-8.

11. Schiller JH, Harrington D, Belani CP, et al. Comparison of four chemotherapy regimens for advanced non-small-cell lung cancer. *N Engl J Med*. 2002. 346:92-8.

12. Sederholm C, Hillerdal G, Lamberg K, et al. Phase III trial of gemcitabine plus carboplatin versus single-agent gemcitabine in the treatment of locally advanced or metastatic non-small-cell lung cancer: the Swedish Lung Cancer Study Group. *J Clin Oncol*. 2005. 23:8380-8.

13. Tan EH, Szczesna A, Krzakowski M, et al. Randomized study of vinorelbine--gemcitabine versus vinorelbine--carboplatin in patients with advanced non-small cell lung cancer. *Lung Cancer*. 2005. 49:233-40.

14. Sandler A, Gray R, Perry MC, et al. Paclitaxel-carboplatin alone or with bevacizumab for non-small-cell lung cancer. *N Engl J Med*. 2006. 355:2542-50.

15. Patel JD, Bonomi P, Socinski MA, et al. Treatment rationale and study design for the pointbreak study: a randomized, open-label phase III study of pemetrexed/carboplatin/bevacizumab followed by maintenance pemetrexed/bevacizumab versus paclitaxel/carboplatin/bevacizumab followed by maintenance bevacizumab in patients with stage IIIB or IV nonsquamous non-small-cell lung cancer. *Clin Lung Cancer*. 2009 Jul. 10(4):252-6.

16. Scagliotti GV, Parikh P, von Pawel J, et al. Phase III study comparing cisplatin plus gemcitabine with cisplatin plus pemetrexed in chemotherapy-naive patients with advanced-stage non-small-cell lung cancer. *J Clin Oncol*. 2008. 26:3543-51.

17. Herbst RS, Prager D, Hermann R, et al. TRIBUTE: a phase III trial of erlotinib hydrochloride (OSI-774) combined with carboplatin and paclitaxel chemotherapy in advanced non-small-cell lung cancer. *J Clin Oncol*. 2005. 23:5892-9.

18. Sequist LV, Yang JC, Yamamoto N, O'Byrne K, Hirsh V, Mok T, et al. Phase III Study of Afatinib or Cisplatin Plus Pemetrexed in Patients With Metastatic Lung Adenocarcinoma With EGFR Mutations. *J Clin Oncol*. 2013 Jul 1.

19. Douillard JY, Ostoros G, Cobo M, Ciuleanu T, McCormack R, Webster A, et al. First-line gefitinib in Caucasian EGFR mutation-positive NSCLC patients: a phase-IV, open-label, single-arm study. *Br J Cancer*. 2014 Jan 7. 110 (1):55-62.

20. Kwak EL, Bang YJ, Camidge DR, Shaw AT, Solomon B, Maki RG, et al. Anaplastic lymphoma kinase inhibition in non-small-cell lung cancer. *N Engl J Med*. 2010 Oct 28. 363(18):1693-703.

21. Chen YM, Shih JF, Perng RP, Tsai CM, Whang-Peng J. A randomized trial of different docetaxel schedules in non-small cell lung cancer patients who failed previous platinum-based chemotherapy. *Chest*. 2006. 129:1031-8.

22. Hanna N, Shepherd FA, Fossella FV, et al. Randomized phase III trial of pemetrexed versus docetaxel in patients with non-small-cell lung cancer previously treated with chemotherapy. *J Clin Oncol*. 2004. 22:1589-97.

23. E. C. J. Phernambucq; F. O. B. Spoelstra; W. F. A. R. Verbakel; P. E. Postmus; C. F. Melissant; K. I. Maassen van den Brink; V. Frings; P. M. van de Ven; E. F. Smit; S. Senan

非小細胞肺癌健保化療藥物適用細胞型態一覽表

	Adenocarcinoma	Squamous Cell Ca	Adjuvant C/T
Docetaxel (見 P. 47)	V	V	
Gemcitabine(見 P. 47)	V	V	
Paclitaxel(見 P. 47)	V (+ cis)	V	
Vinorelbine(見 P. 47)	V	V	V (+cis x 4 courses)
U-Fur(見 P. 48)	V	V	V (T2,>3cm x 2yrs)
Alimta(見 P. 49)	V		
Gefitinib (見 P. 48)	V		
Erlotinib (見 P. 49)	V	V（第三線）	
Afatinib (見 P. 50-51)	V		
Crizotinib (見 P. 51-52)	V		

★(底線部分需事先申請) 可見健保給付規範 P.47-52

CHEMOTHERAPY REGIMENS FOR ADJUVANT THERAPY

(Small cell carcinoma)

CCRT

Limited stage (chemo-radiotherapy)

Cisplatin 60 mg/m^2 IV on D1 + Etoposide 100 mg/m^2 IV on D1-D3 Q3-4W (maximum 4 cycles)[1, 2]

若 CCr < 60 ml/min，可考慮使用以下處方

Carboplatin AUC 4-6 IV on D1 + Etoposide 100 mg/m^2 IV D1-D3 Q3W[3]

Palliative

Extensive stage (stage IV disease)

First line

Cisplatin 60-75 mg/m^2 IV on D1 + Etoposide 80-100 mg/m^2 IV on D1-D3 for 4-6 cycles [4]

若 CCr < 60 ml/min，可考慮使用以下處方

Carboplatin AUC 4-6 IV on D1 + Etoposide 80-100 mg/m^2 IV on D1-D3 for 4-6 cycles[7]

Second line

Topotecan 1.5 mg/m^2 IV on D1-D5 Q3W [11]

Cisplatin 60mg/m^2 IV on D1 + Irinotecan 60 mg/m^2（自費見 P. 48）IV on D1, D8 Q3W [5, 6]

Paclitaxel 150-175 mg/m^2（自費或有條件健保見 P. 47）IV on D1 Q3W [12]

Cyclophosphamide 800-1000 mg/m^2 IV on D1 + Doxorubicin 40-50 mg/m^2 IV on D1 + Vincristine 1-1.4 mg/m^2 IV on D1 Q3-4W [8, 9, 10]

備註: for second line

Second-line chemotherapy is given for 4-6 cycles or until PD as tolerated in some cases

first-line chemotherapy 結束後，超過 6 個月以上才 PD 的患者，可以用原來一線的化療配方重新治療，因為約有

62-100%的 response rate

★見P. 40-45 健保給付規範

Reference for small cell lung cancer

1. Turrisi AT 3rd, Kim K, Blum R, et al. Twice-daily compared with once-daily thoracic radiotherapy in limited small-cell lung cancer treated concurrently with cisplatin and etoposide. *N Engl J Med.* 1999. 340:265-71.

2. Takada M, Fukuoka M, Kawahara M, et al. Phase III study of concurrent versus sequential thoracic radiotherapy in combination with cisplatin and etoposide for limited-stage small-cell lung cancer: results of the Japan Clinical Oncology Group Study 9104. *J Clin Oncol*. 2002. 20:3054-60.

3. Skarlos DV, Samantas E, Briassoulis E, et al. Randomized comparison of early versus late hyperfractionated thoracic irradiation concurrently with chemotherapy in limited disease small-cell lung cancer: a randomized phase II study of the Hellenic Cooperative Oncology Group (HeCOG). *Ann Oncol*. 2001 Sep. 12(9):1231-8.

4. Eckardt JR, von Pawel J, Papai Z, et al. Open-label, multicenter, randomized, phase III study comparing oral topotecan/cisplatin versus etoposide/cisplatin as treatment for chemotherapy-naive patients with extensive-disease small-cell lung cancer. *J Clin Oncol*. 2006. 24:2044-51.

5. Zatloukal P, Cardenal F, Szczesna A, et al. A multicenter international randomized phase III study comparing cisplatin in combination with irinotecan or etoposide in previously untreated small-cell lung cancer patients with extensive disease. *Ann Oncol*. 2010. 21:1810-6.

6. Hanna N, Bunn PA Jr, Langer C, et al. Randomized phase III trial comparing irinotecan/cisplatin with etoposide/cisplatin in patients with previously untreated extensive-stage disease small-cell lung cancer. *J Clin Oncol*. 2006. 24:2038-43.

7. Okamoto H, Watanabe K, Kunikane H, et al. Randomised phase III trial of carboplatin plus etoposide vs split doses of cisplatin plus etoposide in elderly or poor-risk patients with extensive disease small-cell lung cancer: JCOG 9702. *Br J Cancer*. 2007. 97:162-9.

8. Fukuoka M, Furuse K, Saijo N, et al. Randomized trial of cyclophosphamide, doxorubicin, and vincristine versus cisplatin and etoposide versus alternation of these regimens in small-cell lung cancer. *J Natl Cancer Inst*. 1991. 83:855-61.

9. Roth BJ, Johnson DH, Einhorn LH, et al. Randomized study of cyclophosphamide, doxorubicin, and vincristine versus etoposide and cisplatin versus alternation of these two regimens in extensive small-cell lung cancer: a phase III trial of the Southeastern Cancer Study Group. *J Clin Oncol*. 1992. 10:282-91.

10. von Pawel J, Schiller JH, Shepherd FA, et al. Topotecan versus cyclophosphamide, doxorubicin, and vincristine for the treatment of recurrent small-cell lung cancer. *J Clin Oncol*. 1999. 17:658-67.

11. Eckardt JR, von Pawel J, Pujol JL, et al. Phase III study of oral compared with intravenous topotecan as second-line therapy in small-cell lung cancer. *J Clin Oncol*. 2007. 25:2086-92.

12. Smit EF, Fokkema E, Biesma B, Groen HJ, Snoek W, Postmus PE. A phase II study of paclitaxel in heavily pretreated patients with small-cell lung cancer. *Br J Cancer*. 1998. 77:347-51.

肺癌放射線治療政策

Non-Small Cell Lung Cancer

I-II Operable: Adjuvant RT is not indicated except for + margin (PORT meta-analysis Level I)

I-II Inoperable:

Definitive RT .

C/T, if patient can tolerate, maybe added as induction, adjuvant , or concurrent.

IIIA Operable

Post-OP C/T , (+, -) RT indicated for close/+ margin, nodal ECE (SEER, Level IV)

Alterantively, neoadjuvant CCRT followed by re-staging and surgery (SWOG 8805, Level III). Pre-OP RT alone is not recommended for resectable disease (GradeA)

III Inoperable

Combined C/T and RT(prefer)

Radiation Technique

- **Adjuvant**

CTV: Involved LN region ± ipsilateral hilum ± subcarinal LN region to 50.4 Gy depending on the extent of node dissection, number, bulk, and location of mediastinal disease and primary tumor. 10–16 Gy boost if extranodal extension with gross residual disease, at least 60Gy, concurrent C/T should be considered (Level II)

- **Definitive Radiation**

At least 60GY with conventional fractionation, concurrent C/T should be considered

GTV is visible tumor on imaging including all nodes on CT >= 1 cm, or PET/CT (+)

CTV is the region of microscopic disease spread. It expands the GTV by 10-15 mm

PTV: add 0.5–1.0 cm margin on CTV to account for set-up uncertainties and respiratory motion.

IMRT may be advantageous as it better limits dose to normal lung as compared to conventional delivery.

Small Cell Lung Cancer

- **Limited Stage**

ECOG 0-2 CCRT (prefer)

Prophylactic Cranial Irradiation (PCI) is part of the standard treatment for SCLC with complete response after treatment (Grande A)

PCI is also recommended for SCLC with partial response after treatment. (Grade B)

- **Extensive Stage**

Chemotherapy is the mainstay treatment of extensive stage SCLC (Grade A)

Radiotherapy is usually reserved for palliation.

PCI should be considered in all SCLC patients who achieve response to C/T (Grade A, EORTC, Level I)

References

1.Decision Making in Radiation Oncology, V1-2, L.W. Brady, H.-P. et al, 2011

2.Handbook of Evidence-Based Radiation Oncology, Eric K. Hansen et al, 2010

PRIMARY TUMOR (T)	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Tis Carcinoma in situ
T1	Tumor ≦3 cm in greatest dimension, surrounded by lung or visceral pleura, without bronchoscopic evidence of invasion more proximal than the lobar bronchus (i.e., not in the main bronchus)*
T1a	Tumor≦ 2 cm in greatest dimension
T1b	Tumor > 2 cm but ≦3 cm in greatest dimension
T2	Tumor > 3 cm but ≦7 cm or tumor with any of the following features (T2 tumors with these features are classified T2a if ≦ 5 cm) Involves main bronchus, ≧2 cm distal to the carina Invades visceral pleura (PL1 or PL2) Associated with atelectasis or obstructive pneumonitis that extends to the hilar region but does not involve the entire lung
T2a	Tumor > 3 cm but ≦5 cm in greatest dimension
T2b	Tumor > 5 cm but ≦7 cm in greatest dimension
T3	Tumor > 7 cm or one that directly invades any of the following: parietal pleural (PL3) chest wall (including superior sulcus tumors), diaphragm, phrenic nerve, mediastinal pleura, parietal pericardium; or tumor in the main bronchus (< 2 cm distal to the carina* but without involvement of the carina; or associated atelectasis or obstructive pneumonitis of the entire lung or separate tumor nodule(s) in the same lobe
T4	Tumor of any size that invades any of the following: mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, carina, separate tumor nodule(s) in a different ipsilateral lobe
* The uncommon superficial spreading tumor of any size with its invasi vecomponent limited to the bronchial wall, which may extend proximally to the main bronchus, is also classified as T1a.	

REGIONAL LYMPH NODES (N)	
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes, including involvement by direct extension
N2	Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)
N3	Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)

DISTANT METASTASIS (M)	
M0	No distant metastasis (no pathologic M0; use clinical M to complete stage group)
M1	Distant metastasis
M1a	Separate tumor nodule(s) in a contralateral lobe; tumor with pleural nodules or malignant pleural (or pericardial) effusion**
M1b	Distant metastasis
**Most pleural (and pericardial) effusions with lung cancer are due to tumor. In a few patients, however, multiple cytopathologic examinations of pleural (pericardial) fluid are negative for tumor, and the fluid is nonbloody and is not an exudate. Where these elements and clinical judgement dictate that the effusion is not related to the tumor, the effusion should be excluded as a staging element and the patient should be classified as M0.	

AJCC TNM Stage

STAGE			
GROUP	T	N	M
Occult	TX	N0	M0
0	Tis	N0	M0
IA	T1a	N0	M0
	T1b	N0	M0
IB	T2a	N0	M0
IIA	T2b	N0	M0
	T1a	N1	M0
	T1b	N1	M0
	T2a	N1	M0
IIB	T2b	N1	M0
	T3	N0	M0
IIIA	T1a	N2	M0
	T1b	N2	M0
	T2a	N2	M0
	T2b	N2	M0
	T3	N1	M0
	T3	N2	M0
	T4	N0	M0
	T4	N1	M0

`STAGE			
GROUP	T	N	M
IIIB	T1a	N3	M0
	T2b	N3	M0
	T2a	N3	M0
	T2b	N3	M0
	T3	N3	M0
	T4	N2	M0
	T4	N3	M0
IV	Any T	Any N	M1a
	Any T	Any N	M1b
Stage unknown			

健保給付規範

● 9.3.Docetaxel（如Taxotere）（87/7/1、92/11/1、93/8/1、95/8/1、96/1/1、99/6/1、100/1/、101/9/1）
非小細胞肺癌：局部晚期或轉移性之非小細胞肺癌。

● 9.4.Gemcitabine（如 Gemzar）:（92/12/1、93/8/1、94/10/1、96/5/1、99/10/1、105/2/1）
限用於晚期或無法手術切除之非小細胞肺癌。

● 9.5 paclitaxel 成分注射劑：（88/8/1、88/11/1、89/6/1、89/10/1、91/4/1、91/8/1、94/1/1、98/8/1）
限用於
非小細胞肺癌，作為第一線用藥時須與 cisplatin 併用。(94/1/1)

● 9.9.Vinorelbine：(91/1/1、95/6/1、96/9/1、101/3/1)

限用於：
(1) 晚期或無法手術切除之非小細胞肺癌及轉移性乳癌病患。
(2) 病理分期第二期及第三期前半(stage II & stage IIIA)非小細胞肺癌於接受根治性手術後與鉑金類藥品併用之輔助治療，需事前審查後使用，最長以 4 療程為限。
2. 本成分之口服劑型與注射劑型不得併用。

● 9.11. Uracil-Tegafur（如 Ufur）：(100/1/1)
與 cisplatin 併用治療轉移及末期肺癌。
用於病理分期為 T2 且腫瘤≧3cm 之肺腺癌病人，作為手術後輔助治療，使用期限以二年為限。(100/1/1)

● 9.16. Topotecan（如 Hycamtin）：（88/10/1、93/8/1、98/11/1、100/6/1）

Topotecan 注射劑（88/10/1、93/8/1、98/11/1）限小細胞肺癌之第二線化學治療（第一線治療應包括白金化合物）

Topotecan 口服劑型（100/6/1）

限用於小細胞肺癌之第二線化學治療（第一線治療應包括白金化合物）

● 9.24. Gefitinib（如 Iressa):(93/11/1、96/8/1、96/11/1、100/6/1、101/5/1、101/10/1、103/5/1)

1. 限單獨使用於

(1)具有 EGFR-TK 基因突變之局部侵犯性或轉移性(即第ⅢB 期或第Ⅳ期)之肺腺癌病患之第一線治療。(100/6/1)

(2)先前已使用過第一線含鉑化學治療，或 70 歲(含)以上接受過第一線化學治療，但仍局部惡化或轉移之肺腺癌。(96/11/1、100/6/1)

2. 需經事前審查核准後使用：

(1)用於第一線用藥：檢具確實患有肺腺癌之病理或細胞檢查報告，及 EGFR-TK 基因突變檢測報告。(100/6/1)

(2)用於第二線以上用藥：檢具確實患有肺腺癌之病理或細胞檢查報告，並附曾經接受第一線含鉑化學治療，或 70 歲(含)以上接受過第一線化學治療之證明，及目前又有疾病惡化之影像診斷證明（如胸部 X 光、電腦斷層或其他可作為評估的影像），此影像證明以可測量（measurable）的病灶為優先，如沒有可以測量的病灶，則可評估（evaluable）的病灶亦可採用。(96/11/1、100/6/1)

(3) 每次申請事前審查之療程以三個月為限，每三個月需再次申請，再次申請時並需附上治療後相關臨床資料，如給藥四週後，需追蹤胸部 X 光或電腦斷層等影像檢查一遍，評估療效，往後每四週做胸部 X 光檢查，每隔八週需追蹤其作為評估藥效的影像（如胸部 X 光或電腦斷層）(101/5/1)。

3. 醫師每次開藥以 4 週為限。

4. 本藥品與 erlotinib(如 Tarceva)及 afatinib(如 Giotrif)不得併用。(96/8/1、103/5/1)

● 9.26.Pemetrexed（如 Alimta）：（95/3/1、95/7/1、97/11/1、98/9/1、103/4/1）

1. 限用於 (1)與 cisplatin 併用於惡性肋膜間質細胞瘤。 (2)以含鉑之化學療法治療或 70 歲(含)以上接受過第一線化學治療，但仍失敗之局部晚期或轉移性非小細胞肺癌病患 （顯著鱗狀細胞組織型除外）之單一藥物治療。(95/7/1、97/11/1、98/9/1) (3)與含鉑類之化學療法併用，作為治療局部晚期或轉移性非小細胞肺癌（顯著鱗狀細胞組織型除外）之第一線化療用藥，且限用於 ECOG performance status 為 0~1 之病患。(98/9/1)

2. 需經事前審查核准後，初次申請以 6 個療程為限，續用應每 4 個療程評估一次， 如有發現病情惡化，應即停止使用。(103/4/1、103/9/1)

● 9.29.Erlotinib（如 Tarceva）:（96/6/1、96/8/1、97/6/1、101/5/1、102/4/1、103/5/1）

1. 限單獨使用於

(1))適用於具有 EGFR-TK 突變之局部侵犯性或轉移性(即第ⅢB 期或第Ⅳ期)之肺 腺癌病患之第一線治療 (102/11/1) 。

(2) 已接受 4 個週期 platinum 類第一線化學療法後，腫瘤範圍穩定(stable disease，不含 partial response 或 complete response)之局部晚期或轉移性肺腺癌的維持療法。(102/4/1)

(3) 先前已使用過 platinum 類第一線化學治療，或 70 歲(含)以上接受過第一線化學治療，但仍局部惡化或轉移之腺性非小細胞肺癌之第二線用藥。 (97/6/1)

(4) 先前已使用過 platinum 類及 docetaxel 或 paclitaxel 化學治療後，但仍局部惡化或轉移之非小細胞肺癌之第三線用藥。

2. 需經事前審查核准後使用，若經事前審查核准，因臨床治療需轉換同成份不同含量品項，得經報備後依臨床狀況轉換使用，惟總使用期限不得超過該次申請事前審查之療程期限。 (97/6/1)

(1) 用於已接受 platinum 類第一線化學療法後，病情穩定之維持療法：檢具確實患有肺腺癌之病理或細胞檢查報告，並附已接受 4 個週期 platinum 類第一線化學療法後，腫瘤範圍穩定(stable disease，不含 partial

response 或 complete response)之影像診斷證明（如胸部 X 光、電腦斷層或其他可作為評估的影像）。(102/4/1)

(2) 用於第二線用藥：檢具確實患有非小細胞肺癌之病理或細胞檢查報告，並附曾經接受 platinum 類第一線化學治療，或 70 歲(含)以上接受過第一線化學治療之證明，及目前又有疾病惡化之影像診斷證明（如胸部 X 光、電腦斷層或其他可作為評估的影像），此影像證明以可測量（measurable）的病灶為優先，如沒有可以測量的病灶，則可評估（evaluable）的病灶亦可採用。（97/6/1）

(3) 用於第三線用藥：檢具確實患有非小細胞肺癌之病理或細胞檢查報告，並附曾經接受第一線及第二線化學藥物如 platinum（cisplatin 或 carboplatin）與 taxanes（paclitaxel 或 docetaxel）治療之證明，及目前又有疾病惡化之影像診斷證明（如胸部 X 光、電腦斷層或其他可作為評估的影像）， 此影像證明以可測量(measurable)的病灶為優先，如沒有可以測量的病灶，則可評估(evaluable)的病灶亦可採用。(97/6/1)

(4) 每次申請事前審查之療程以三個月為限，每三個月需再次申請，再次申請時並需附上治療後相關臨床資料，如給藥四週後，需追蹤胸部 X 光或電腦斷層等影像檢查一遍，評估療效，往後每四週做胸部 X 光檢查，每隔八週需追蹤其作為評估藥效的影像（如胸部 X 光或電腦斷層）。(101/5/1)

3. 醫師每次開藥以 4 週為限。

4. 本藥品與 gefitinib(如 Iressa)及 afatinib(如 Giotrif)不得併用。(96/8/1、103/5/1)

● **9.45. Afatinib**（如 Giotrif）：(103/5/1)

1. 限單獨使用於具有 EGFR-TK 基因突變之局部晚期或轉移性(即第ⅢB 期或第Ⅳ期)之肺腺癌病患之第一線治療。

2. 需經事前審查核准後使用，若經事前審查核准，因臨床治療需轉換同成分不同含量品項，得經報備後依臨床狀況轉換使用，惟總使用期限不得超過該次申請事前審查之療程期限。

(1)檢具確實患有肺腺癌之病理或細胞檢查報告，及 EGFR-TK 基因突變檢測報告。

(2)每次申請事前審查之療程以三個月為限，每三個月需再次申請，再次申請時並需附上治療後相關臨床資料，如給藥四週後，需追蹤胸部 X 光或電腦斷層等影像檢查一遍，評估療效，往後每四週做胸部 X 光檢查，

每隔八週需追蹤其作為評估藥效的影像（如胸部 X 光或電腦斷層）

3. 使用本藥品後，除因耐受性不良，否則不得轉換類似藥理機轉之其他酪胺酸激 酶阻斷劑 (tyrosine kinase inhibitor, TKI)。
4. 醫師每次開藥以 4 週為限。
5. 本藥品與 gefitinib（如 Iressa）及 erlotinib(如 Tarceva)不得併用。

● 9.50.**Crizotinib**（如 Xalkori）:(104/9/1)

1. 適用於已接受一種含 platinum 類第一線化學治療失敗之 ALK 陽性之晚期非小細胞肺癌患者(健保第二線),(或自費可第一線使用)。
2. 符合前述之病患且併有腦轉移之非小細胞肺癌病人，需達腦部穩定狀態(brain stabilized)始得使用。腦部穩定狀態定義為「無因腦轉移之臨床症狀(Asymptomatic brain metastases)或有腦轉移之臨床症狀(Symptomatic brain metastases)經治療後腦轉移相關臨床症狀穩定至少達三週以上之病人(類固醇劑量穩定)」。
3. 須經事前審查核准後使用:

(1)需檢具確實患有非小細胞肺癌之病理或細胞檢查報告，並附曾經接受第一線含鉑化學治療又有疾病惡化之影像診斷證明（如胸部 X 光、電腦斷層或其他可作為評估的影像），此影像證明以可測量（measurable）的病灶為優先，如沒有可以測量的病灶，則可評估（evaluable）的病灶亦可採用。

(2)每次申請事前審查之療程以三個月為限，每三個月需再次申請，再次申請時並需附上治療後相關臨床資料，如給藥四週後，需追蹤胸部 X 光或電腦斷層等影像檢查一遍，評估療效，往後每四週做胸部 X 光檢查，每隔八週需追蹤其作為評估藥效的影像（如胸部 X 光或電腦斷層）。

(3)每次處方以 4 週為限。

References

1. Winton T, Livingston R, Johnson D, et al. Vinorelbine plus cisplatin vs. observation in resected non-small-lung cancer. N Engl J Med 2005;352:2589-2597.
1. Fossella F, Pereira JR, von Pawel J, et al. Randomized, multinational, phase III study of docetaxel plus platinum combinations versus vinorelbine plus cisplatin for advanced non-small-cell lung cancer: the TAX 326 study group. J Clin Oncol 2003;21(16):3016-24. Epub 2003 Jul 1.
2. Strauss GM, Herndon III JE, Maddaus MA, et al. Adjuvant paclitaxel plus carboplatin compared with observation in stage IB non-small cell lung cancer: CALGB 9633 with the Cancer and Leukemia Group B, Radiation Therapy Oncology Group, and North Central Cancer Treatment Group Study Groups. J Clin Oncol 2008;26:5043-5051.
3. Albain KS, Crowley JJ, Turrisi AT III, et al. Concurrent cisplatin, etoposide, and chest radiotherapy in pathologic stage IIIB non-small-cell lung cancer: A Southwest Oncology Group Phase II Study, SWOG 9019. J Clin Oncol 2002;20:3454-3460.
4. Curran WJ Jr, Paulus R, Langer CJ, et al. Sequential vs. concurrent chemoradiation for stage III non-small cell lung cancer: randomized phase III trial RTOG 9410. J Natl Cancer Inst. 2011;103:1452-1460.
5. Govindan R, Bogart J, Stinchcombe T, et al. Randomized phase II study of pemetrexed, carboplatin, and thoracic radiation with or without cetuximab in patients with locally advanced unresectable non-small-cell lung cancer; Cancer and leukemia Group B trial 30407. J Clin Oncol 2011;29:3120-3125.
6. Vokes EE, Senan S, Treat JA, lscoe NA. PROCLAIM: A phase III study of pemetrexed, cisplatin ,and radiation therapy followed by consolidation pemetrexed versus etoposide, cisplatin, and radiation therapy followed by consolidation cytotoxic chemotherapy of choice in locally advanced a\stage III non-small-cell lung cancer of other than predominantly squamous cell histology. Clin Lung Cancer 2009;10:193-198