



# 中山醫學大學附設醫院

## 肺癌診療指引

本臨床指引參考國家衛生研究院及美國NCCN版本

肺癌多專科醫療團隊編修

2025/11/17 Version 20.0  
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2016/12/15 Version 11.0  
2015/11/24 Version 10.0  
2014/12/09 Version 9.0  
2013/12/24 Version 8.0  
2012/12/11 Version 7.0  
2011/12/06 Version 6.0  
2010/12/05 Version 5.0  
2009/12/15 Version 4.0  
2008/11/04 Version 3.0  
2008/02/05 Version 2.0  
2007/11/13 Version 1.0

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頁數	第 19 版	第 20 版
Page 3	AJCC 第九版 TNM stage group	Replenish 9th AJCC TNM staging
Page 9	WORK-UP Pathology review <ul style="list-style-type: none"> <li>• H &amp; P (include performance status + weight loss)</li> <li>• CT chest and upper abdomen with contrast, including adrenals</li> <li>• CBC, platelets</li> <li>• Chemistry profile</li> <li>• Smoking cessation advice, counseling, and pharmacotherapy</li> <li>• Integrate palliative care</li> <li>• For tools to aid in the optimal assessment and management of older adults, see the NCCN Guidelines for Older Adult Oncology</li> </ul>	Update work up added bullet 6 <ul style="list-style-type: none"> <li>• For stage IB-III A               <ul style="list-style-type: none"> <li>➢ PDL-1 testing</li> <li>➢ Molecular testing for EGFR, ALK(especially adenocarcinoma prefer);</li> </ul> </li> </ul> Evaluate for perioperative therapy
Page 10	Consider pathologic Mediastinal lymph node Evaluation	Revised stage IA-III A Consider pathologic Mediastinal lymph node Evaluation added optional
Page 11	Stage IB(peripheral T2a, N0) ; Stage I(central T1abc-T2a, N0) Stage II(T1abc-T2ab, N1;T2b,N0) ; Stage IIB (T3, N0) ; Stage IIIA (T3, N1) PRETREATMENT EVALUATION negative mediastinal nodes / positive mediastinal nodes Initial treatment for medically inoperable was N0 finding go through definitive RT including SABR then consider adjuvant chemotherapy and Durvalumab for high stage IB-II	Stage IB(peripheral T2a, N0) ; Stage I(central T1abc-T2a, N0) Stage II(T1abc-T2ab, N1;T2b,N0) ; Stage IIB (T3, N0) ; Stage IIIA (T3, N1) Revised PRETREATMENT EVALUATION N0-1 or N2-3 And initial treatment for medically inoperable was N0 finding go through definitive RT including SABR then consider adjuvant chemotherapy for high stage II



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Page 12	<p>Finding at surgery for adjuvant treatment</p> <ul style="list-style-type: none"> <li>● Stage IB(T2a, N0);Stage IIA(T2b, N0) for               <ul style="list-style-type: none"> <li>➢ R0 then Observe or Chemotherapy for high-risk patients following by osimertinib (EGFR exon 19 deletion or exon 21 L858R) or Atezolizumab (IIA)or pembrolizumab(IB-IIIA)</li> <li>➢ R1/2 then Reresection(preferred)± chemotherapy or RT ±chemotherapy(for stage IIA)</li> </ul> </li> <li>● Stage IIB(T1abc-2a; N1)Stage IIB(T3, N0; T2b, N1)               <ul style="list-style-type: none"> <li>➢ R0 then Chemotherapy (category 1) or Atezolizumab* (Stage IIA、IIB、III) or osimertinib<sup>#</sup> (sensitive EGFR mutation)</li> <li>➢ R1 Reresection+ chemotherapy or Chemoradiation (sequential or concurrent)</li> <li>➢ R2 Reresection+ chemotherapy or Concurrent chemoradiation</li> </ul> </li> <li>● Stage IIIA(T1-2,N2;T3,N1)Stage IIIB(T3,N2)               <ul style="list-style-type: none"> <li>➢ R0 then Atezolizumab or pembrolizumab or osimertinib (sensitive EGFR mutation) or Sequential chemotherapy ± RT (N2 only)</li> </ul> </li> </ul>	<p>Finding at surgery for adjuvant treatment All Chemotherapy revised to Adjuvant systemic therapy</p>
Page 13	<p>Stage IIB(T3 invasion, N0) and Stage IIIA(T4, extension, N0-1; T3, N1;T4,N0-1) CLINICAL EVALUATION for different pathway chest wall Treatment (Page10 ) Proximal airway or mediastinum Treatment (Page10 ) Unresectable disease Positive mediastinal nodes</p>	<p>Stage IIB(T3 invasion, N0) and Stage IIIA(T4, extension, N0-1; T3, N1;T4,N0-1) Combined Chest wall trachea/carina, mediastinum or Diaphragm diaphragm go for the same treatment rote Unresectable disease revised to N2 disease and go through to stage IIIA IIIB treatment Positive mediastinal nodes revised N3 disease and go through go stage IIIC</p>



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Page 14	Superior sulcus tumor (T3 invasion,N0-1) Surgery + chemotherapy then Consider or Atezolizumab, or pembrolizumab or Osimertinib#	Superior sulcus tumor (T3 invasion,N0-1) and (T4 extension,N0-1) after Surgery + chemotherapy Delete Consider: or Atezolizumab or pembrolizumab or Osimertinib#
Page 14	Superior Sulcus tumor (T4 extension,N0-1) Unresectable after Definitive combined chemoradiation then Durvalumab(category 1)	Superior Sulcus tumor (T4 extension,N0-1) Unresectable after Definitive combined chemoradiation revised to Durvalumab(category 1) (if no EGFR exon 19 deletion or L858R)(category 1) or Osimertinib(category 1)(if EGFR exon 19 deletion or L858R) and added National Health Insurance, chapter 9 bullet 69
Page 15	Chest wall(T3 invasion, N0-1;Resectable T4, extension, N0- 1) ● After surgery was margin negative(R0) then chemotherapy and Consider or Atezolizumab or pembrolizumab or osimertinibr# ● Revised After surgery was margin positive(R1) then Reresection +chemotherapy or Chemoradiation (sequential or concurrent) ● Stage IIIA (T4, N0-1) After surgery margin negative(R0) then observe and Margins positive(R1, R2) Reresection and/or RT boost Stage IIIA (T4, N0-1) Unresectable after Definitive combined chemoradiation then Durvalumab(category 1)	Revised Chest wall, trachea/carina, mediastinum or diaphragm and deleted proximal airway or mediastinum(T3 invasion, N0-1;Resectable T4, extension, N0-1) After surgery was margin negative(R0) then chemotherapy and deleted Consider or Atezolizumab or pembrolizumab or osimertinibr# Replased After surgery was margin positive(R1) then Reresection + systemic therapy or Chemoradiation (sequential or concurrent) Stage IIIA (T4, N0-1)after surgery Margins negative(R0) observe added Adjuvant systemic therapy and Margins positive(R1, R2) Reresection and/or RT boost then added Adjuvant systemic therapy Definitive concurrent chemoradiation(category 1) then revised consolidation therapy



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Page 15	<p>Chest wall(T3 invasion, N0-1;Resectable T4, extension, N0-1)</p> <ul style="list-style-type: none"> <li>● After surgery was margin negative(R0) then chemotherapy and Consider or Atezolizumab or pembrolizumab or osimertinibr#</li> <li>● Revised After surgery was margin positive(R1) then Reresection +chemotherapy or Chemoradiation (sequential or concurrent)</li> <li>● Stage IIIA (T4, N0-1) After surgery margin negative(R0) then observe and Margins positive(R1, R2) Reresection and/or RT boost</li> </ul> <p>Stage IIIA (T4, N0-1) Unresectable after Definitive combined chemoradiation then Durvalumab(category 1)</p>	<p>Revised Chest wall, trachea/carina, mediastinum or diaphragm and deleted proximal airway or mediastinum(T3 invasion, N0-1;Resectable T4, extension, N0-1)</p> <ul style="list-style-type: none"> <li>● After surgery was margin negative(R0) then chemotherapy and deleted Consider or Atezolizumab or pembrolizumab or osimertinibr#</li> <li>● Replaced After surgery was margin positive(R1) then Reresection + systemic therapy or Chemoradiation (sequential or concurrent)</li> <li>● Stage IIIA (T4, N0-1)after surgery Margins negative(R0) observe added Adjuvant systemic therapy and Margins positive(R1, R2) Reresection and/or RT boost then added Adjuvant systemic therapy</li> </ul> <p>Definitive concurrent chemoradiation(category 1) then revised consolidation therapy</p>
Page 16	<p>Stage IIIA (T1-2, N2) 、 Stage IIIB (T3, N2)  <b>MEDIASTINAL BIOPSY FINDINGS AND RESECTABILITY</b>                      N2,N3 nodes negative and N2 nodes positive</p>	<p>Stage IIIA (T1-2, N2) 、 Stage IIIB (T3, N2)  <b>MEDIASTINAL BIOPSY FINDINGS AND RESECTABILITY</b> nodes negative deleted N2,N3 and nodes positive revised N1-2</p>
Page 17	None	<p><b>MEDIASTINAL BIOPSY FINDINGS</b>                      ADDED T1N0 and T2-3N0 treatment pathway</p>



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Page 18	<p>MEDIASTINAL BIOPSY FINDINGS for</p> <ul style="list-style-type: none"> <li>● T1-3, N1 Surgical resection + mediastinal lymph node dissection or systematic lymph node sampling</li> <li>Medically inoperable See Treatment according to clinical stage</li> <li>● T1-T3N2 nodes Positive, M0 for Definitive concurrent chemoradiation then Durvalumab</li> <li>T3(invasion),N2 nodes positive,M0 treatment pathway</li> </ul>	<p>MEDIASTINAL BIOPSY FINDINGS for</p> <ul style="list-style-type: none"> <li>● Revised T1-3, N1 nodes positive,M0 <ul style="list-style-type: none"> <li>➢ resectable Surgical resection + mediastinal lymph node dissection or systematic lymph node sampling added after preoperative systemic therapy</li> <li>➢ Medically inoperable deleted See Treatment according to clinical stage and updated Definitive concurrent chemoradiation then Durvalumab((if no EGFR exon 19 deletion or L858R)(category 1) or Osimertinib(category 1)(if EGFR exon 19 deletion or L858R) and added National Health Insurance, chapter 9 bullet 69 then Surveillance</li> </ul> </li> <li>● Revised T1-T3, N2 nodes Positive, M0 After Definitive concurrent chemoradiation then Durvalumab revised consolidation therapy Deleted T3(invasion),N2 nodes positive,M0 treatment pathway</li> </ul>
Page 19	<p>Separate pulmonary nodule(s), same lobe (T3, N0-1), or ipsilateral non-primary lobe (T4, N0-1) (排除 micro primary lung cancer) Surgery N0-1 after chemotherapy then consider Atezolizumab or pembrolizumab or Osimertinib</p>	<p>Revised Surgery after preoperative systemic therapy And N0-1 after chemotherapy then deleted consider Atezolizumab or pembrolizumab or Osimertinib</p>
Page 20	<ul style="list-style-type: none"> <li>● Multiple lung Cancers (N0-1) then divided into Asymptomatic and Symptomatic</li> <li>Multiple lesions low risk for observation revised to follow up</li> </ul>	<p>Multiple lung Cancers raised(suspected or confirmed) (N0-1) and deleted Asymptomatic and Symptomatic and low risk for Observation revised to follow up</p>



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Page 22	<p>Stage IIIB(T4 ,N2)Stage IIIC(T4,N3) with INITIAL TREATMENT                      Ipsilateral, mediastinal node positive(T4,N2) then go Definitive concurrent chemoradiation (category 1) then Durvalumab(category 1) and then Surveillance</p>	<p>Stage IIIB(T4 ,N2)Stage IIIC(T4,N3) with INITIAL TREATMENT                      Ipsilateral, mediastinal node positive(T4,N2) then go Definitive concurrent chemoradiation (category 1) deleted                      Definitive concurrent chemoradiation (category 1)                      Osimertinib (if EGFR exon 19 deletion or L858R) revised treatment pathway to Definitive concurrent chemoradiation(category 1) then Operation(optional) or Consolidation therapy</p>
Page 23	<p>Stage IVA, M1b                      Limited metastases confirmed                      Multiple metastases See Systemic Therapy for Metastatic Disease</p>	<p>Stage IVA, M1b                      Updated Solitary or Limited metastases confirmed                      Multiple metastases See Systemic Therapy for revised Advanced or Metastatic Disease</p>
Page 24	<p>Definitive therapy for thoracic disease feasible                      Consider systemic therapy (Page 21) revised to and restaging to confirm non-progression or Proceed to definitive therapy</p>	<p>Definitive therapy for thoracic disease feasible                      Consider systemic therapy (Page 21) revised to as Advanced /Metastatic Disease and restaging to confirm non-progression or Proceed to definitive therapy</p>



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Page 25	<p>SURVEILLANCE AFTER COMPLETION OF DEFINITIVE THERAPY for No evidence of clinical/radiographic disease</p> <ul style="list-style-type: none"> <li>● Stage I–II(primary treatment included surgery± chemotherapy)               <ul style="list-style-type: none"> <li>➢ H&amp;P and chest CT ± contrast every 3-6 mo for 2–3 y, then H&amp;P and a LDCT annually</li> </ul> </li> <li>● Stage I–II (primary treatment included RT) or stage III or stage IV (oligometastatic with all sites treated with definitive intent)               <ul style="list-style-type: none"> <li>➢ H&amp;P and chest CT ± contrast every 3–6 mo for 3 y, then H&amp;P and chest CT ± contrast every 6 mo for 2 y, then H&amp;P and a LDCT annually</li> <li>➢ Residual or new radiographic abnormalities may require more frequent imaging</li> </ul> </li> <li>● Smoking cessation advice, counseling and Pharmacotherapy PET/CT</li> </ul>	<p>SURVEILLANCE AFTER COMPLETION OF DEFINITIVE THERAPY</p> <p>Added bullet 5</p> <ul style="list-style-type: none"> <li>• Brain MRI as clinically indicated based on risk assessment</li> </ul>
Page 27	<p>THERAPY FOR RECURRENCE AND METASIS Pleural metastases or Disseminated metastases See pathway for Stage IV, M1b</p>	<p>THERAPY FOR RECURRENCE AND METASIS Revised Pleural metastases or Disseminated metastases See pathway for Stage IV, M1b added and Stage IVB,M1c (Page 15)</p>



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Page 28	<p>TESTING SUBTYPE Molecular testing, ex: *EGFR mutation ,ALK,ROS1, *BRAF, METex14 * RET,KRAS,NTRK1/2/3, *ERBB2 • PD-L1 testing</p>	<p>TESTING SUBTYPE added c-Met/MET and Replenish ERBB2(HER2)</p>
Page 29	None	Added NRG1 gene fusion positive and page
Page 30	<p>EGFR exon 19 deletion or L858R mutations Preferred Osimertinib (category 1) and Useful in Certain Circumstances Afatinib (category 1) or Dacomitinib (category 1) or Erlotinib (category 1) or Erlotinib + Bevacizumab or Erlotinib + Ramucirumab or Gefitinib (category 1)</p>	<p>EGFR exon 19 deletion or L858R mutations then two pathway all updated (Carboplatin + Cisplatin )/ Osimertinib+pemetrexed (nonsquamous)(category 1) Amivantamab+Lazertinib(category 1)</p>
Page 31	<p>Progression on Osimertinib or Amivantamab-vmjw + Lazertinib for Muliple lesions treatment Amivantamab-vmjw + Lazertinib(if not previously given) or Systemic therapy Adenocarcinoma or Squamous Cell Carcinoma</p>	<p>Progression on Osimertinib or Amivantamab-vmjw + Lazertinib For Muliple lesions treatment updated Amivantamab-vmjw+Lazertinib(if not previously given) +Carboplatin+Pemetrexed(nonsquamous)(category 1)(preferred) or Systemic therapy Adenocarcinoma or Squamous Cell Carcinoma</p>



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Page 36	ALK rearrangement positive for Preferred Alectinib (category 1) or Brigatinib (category 1) or Lorlatinib (category 1)	<i>ALK</i> gene fusion for Preferred added Ensartinib(category 1)
Page 37	Progression on Alectinib or Brigatinib or Ceritinib or Lorlatinib for SUBSEQUENT THERAPY of Lorlatinib(option for resistant mutation such as ALK G1202R)	Progression on Alectinib or Brigatinib or Ceritinib or Lorlatinib for SUBSEQUENT THERAPY of Lorlatinib Replenish and L1196M)
Page 39	ROS1 rearrangement positive for ROS1 rearrangement discovered prior to first-line systemic therapy <u>Other Recommended</u> Ceritinib ROS1 rearrangement discovered during first-line systemic Therapy then Complete planned systemic therapy, including maintenance therapy, or interrupt, followed by Crizotinib (preferred) or Entrectinib(preferred) or Repotrectinib(preferred) or ceritinib	ROS1 gene fusion for ROS1 gene fusion discovered prior to first-line systemic therapy Deleted <u>Other Recommended</u> Ceritinib and updated Or Taletrectinib ROS1 rearrangement discovered during first-line systemic therapy Deleted ceritinib and updated Taletrectinib(preferred)
Page 40	Progression, on Entrectinib, Crizotinib, Repotrectinib, ceritinib for Asymptomatic of SUBSEQUENT THERAPY ● Consider definitive local therapy (eg, SABR or surgery) for limited lesions ● Continue Crizotinib,Entrectinib, or Repotrectinib or Taletrectinib Or Repotrectinib* (if not previously given) or Taletrectinib or Lorlatinib	Progression, on Entrectinib,Crizotinib,Repotrectinib, Deleted ceritinib added or Taletrectinib SUBSEQUENT THERAPY deleted ceritinib and updated Taletrectinib for any pathway



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Page 42	NTRK1/2/3 gene fusion discovered during first-line systemic therapy to Complete planned systemic therapy, including maintenance therapy, or interrupt, followed by Entrectinib <sup>#</sup> or Larotrectinib <sup>#</sup>	NTRK1/2/3 gene fusion discovered during first-line systemic therapy to Complete planned systemic therapy, including maintenance therapy, or interrupt, followed by Entrectinib <sup>#</sup> or Larotrectinib <sup>#</sup> Added or Repotrectinib
Page 44	RET rearrangement positive with RET rearrangement discovered prior to first-line systemic therapy or RET rearrangement discovered during first-line systemic therapy In Useful in Certain Circumstances : Cabozantinib and Other Recommended See Initial systemic therapy options Adenocarcinoma or Squamous cell carcinoma	RET rearrangement positive revised to Cabozantinib for 2 <sup>nd</sup> line and deleted See Initial systemic therapy options Adenocarcinoma or Squamous cell carcinoma
Page 45	ERBB2(HER2)mutation positive After Tumor response evaluation for Progression <u>Preferred</u> Fam-trastuzumab deruxtecan-nxki <u>Other Recommended</u> Ado-trastuzumab emtansine	ERBB2(HER2) mutation positive After Tumor response evaluation for Progression <u>Preferred</u> Fam-trastuzumab deruxtecan-nxki added or Zongertinib <u>Other Recommended</u> Ado-trastuzumab emtansine
Page 46	None	Updated NRG1 gene fusion treatment pathway
Page 49	Chemotherapy principles	Update and refresh chemotherapy protocol of Neoadjuvant、Adjuvant、Advanced/Metastatic regimen



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Page 57	Nil	Updated TKI regimen
Page 83	SBRT dose Commonly Used Doses for SABR and Maximum Dose Constraints for SABR Example Indications lists for any organs	SBRT dose Commonly Used Doses for SABR and Maximum Dose Constraints for SABR Updated Peripheral tumors for 50–60 Gy/5Fr.
Page 85	Normal Tissue Dose-Volume Constraints for Conventionally Fractionated RT with Concurrent Chemotherapy to Heart for V50	Normal Tissue Dose-Volume Constraints for Conventionally Fractionated RT with Concurrent Chemotherapy to Heart for V40 $\leq 25\%$ ; Mean $\leq 20$ Gy
Page 88	Ref. 1-52	Update and refresh all reference then deleted reference over ten years



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## 一、TNM 分期

## AJCC 第八版 TNM stage

<b>T Primary Tumor</b>	
<b>TX</b>	Primary tumor cannot be assessed, or tumor proven by the presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy
<b>T0</b>	No evidence of primary tumor
<b>Tis</b>	Carcinoma in situ Squamous cell carcinoma in situ (SCIS) Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, $\leq 3$ cm in greatest dimension
<b>T1</b>	Tumor $\leq 3$ 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) *T1mi Minimally invasive adenocarcinoma: adenocarcinoma ( $\leq 3$ cm in greatest dimension) with a predominantly lepidic pattern and $\leq 5$ mm invasion in greatest dimension *T1a Tumor $\leq 1$ cm in greatest dimension. A superficial, spreading tumor of any size whose invasive component is limited to the bronchial wall and may extend proximal to the main bronchus also is classified as T1a, but these tumors are uncommon. *T1b Tumor $> 1$ cm but $\leq 2$ cm in greatest dimension *T1c Tumor $> 2$ cm but $\leq 3$ cm in greatest dimension
<b>T2</b>	Tumor $> 3$ cm but $\leq 5$ cm or having any of the following features: (1) Involves the main bronchus, regardless of distance to the carina, but without involvement of the carina; (2) Invades visceral pleura (PL1 or PL2); (3) Associated with atelectasis or obstructive pneumonitis that extends to the hilar region, involving part or all of the lung *T2a Tumor $> 3$ cm but $\leq 4$ cm in greatest dimension *T2b Tumor $> 4$ cm but $\leq 5$ cm in greatest dimension
<b>T3</b>	Tumor $> 5$ cm but $\leq 7$ cm in greatest dimension or directly invading any of the following: parietal pleura (PL3), chest wall (including superior sulcus tumors), phrenic nerve, parietal pericardium; or separate tumor nodule(s) in the same lobe as the primary
<b>T4</b>	Tumor $> 7$ cm or tumor of any size invading one or more of the following: diaphragm, mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, carina; separate tumor nodule(s) in an ipsilateral lobe different from that of the primary



<b>N</b>	<b>Regional Lymph Nodes</b>
<b>NX</b>	Regional lymph nodes cannot be assessed
<b>N0</b>	No regional lymph node metastasis
<b>N1</b>	Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes, including involvement by direct extension
<b>N2</b>	Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)
<b>N3</b>	Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)
<b>M</b>	<b>Distant Metastasis</b>
<b>M0</b>	No distant metastasis
<b>M1</b>	Distant metastasis
<b>M1a</b>	Separate tumor nodule(s) in a contralateral lobe; tumor with pleural or pericardial nodules or malignant pleural or pericardial effusion
<b>M1b</b>	Single extrathoracic metastasis in a single organ (including involvement of a single nonregional node)
<b>M1c</b>	Multiple extrathoracic metastases in a single organ or in multiple organs

	T	N	M
<b>Occult Carcinoma</b>	TX	N0	M0
<b>Stage 0</b>	Tis	N0	M0
<b>Stage IA1</b>	T1mi	N0	M0
	T1a	N0	M0
<b>Stage IA2</b>	T1b	N0	M0
<b>Stage IA3</b>	T1c	N0	M0
<b>Stage IB</b>	T2a	N0	M0
<b>Stage IIA</b>	T2b	N0	M0
<b>Stage IIB</b>	T1a	N1	M0
	T1b	N1	M0
	T2a	N1	M0
	T2b	N1	M0
	T3	N0	M0
<b>Stage IIIA</b>	T1a	N2	M0
	T1b	N2	M0
	T2a	N2	M0
	T2b	N2	M0
	T3	N1	M0
	T4	N0	M0
	T4	N1	M0

	T	N	M
<b>Stage IIB</b>	T1a	N3	M0
	T1b	N3	M0
	T1c	N3	M0
	T2a	N3	M0
	T2b	N3	M0
	T3	N2	M0
<b>Stage IIC</b>	T4	N2	M0
	T3	N3	M0
<b>Stage IVA</b>	T4	N3	M0
	<b>Any T</b>	<b>Any N</b>	<b>M1a</b>
<b>Stage IVB</b>	<b>Any T</b>	<b>Any N</b>	<b>M1b</b>
	<b>Any T</b>	<b>Any N</b>	<b>M1c</b>



AJCC 第九版 TNM stage

T Category	T Criteria
TX	Primary tumor cannot be assessed
	Includes tumors proven by the presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy
T0	No evidence of primary tumor
Tis	Carcinoma in situ
	Squamous cell carcinoma in situ (SCIS)
	Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, ≤ 3 cm in greatest dimension
T1	Tumor ≤ 3 cm in greatest dimension surrounded by lung or visceral pleura, or in a lobar or more peripheral bronchus
T1mi	Minimally invasive adenocarcinoma: adenocarcinoma (≤ 3 cm in greatest dimension) with a predominantly lepidic pattern and ≤ 5 mm invasion in greatest dimension
T1a	Tumor ≤ 1 cm in greatest dimension OR
	Tumor of any size whose invasive component is limited to the bronchial wall and may extend proximal to the main bronchus, this is an uncommon superficial, spreading tumor
T1b	Tumor > 1 cm but ≤ 2 cm in greatest dimension
T1c	Tumor > 2 cm but ≤ 3 cm in greatest dimension
T2	Tumor > 3 cm but ≤ 5 cm in greatest dimension OR
	Tumor ≤ 4 cm with one or more of the following features:
	• Invades visceral pleura
	• Invades an adjacent lobe
T2	• Involves main bronchus (up to but not including the carina) or associated with atelectasis or obstructive pneumonitis, extending to the hilar regions, involving either part of or the entire lung

T Category	T Criteria
T2a	Tumor > 3 cm but ≤ 4 cm in greatest dimension OR
	Tumor ≤ 4 cm in greatest dimension with one or more of the following features:
	• Invades visceral pleura • Invades an adjacent lobe • Involves main bronchus (up to but not including the carina) or associated with atelectasis or obstructive pneumonitis, extending to the hilar regions, involving either part of or the entire lung
T2b	Tumor > 4 cm but ≤ 5 cm in greatest dimension with or without any of the following features:
	• Invades visceral pleura • Invades an adjacent lobe
	• Involves main bronchus (up to but not including the carina) or associated with atelectasis or obstructive pneumonitis, extending to the hilar regions, involving either part of or the entire lung
T3	Tumor > 5 cm but ≤ 7 cm in greatest dimension OR
	Tumor ≤ 7 cm with one or more of the following features:
	• Invades parietal pleura or chest wall • Invades pericardium, phrenic nerve or azygos vein
	Although these structures lie within the mediastinum, the degree of mediastinal penetration by the tumor needed to invade these structures is not counted as T4
	• Invades thoracic nerve roots (i.e., T1, T2) or stellate ganglion • Separate tumor nodule(s) in the same lobe as the primary
T4	Tumor > 7 cm in greatest dimension OR
	Tumor of any size with one or more of the following features:
	• Invades mediastinum (except structures listed in T3), thymus, trachea, carina, recurrent laryngeal nerve, vagus nerve, esophagus or diaphragm
	• Invades heart, great vessels (aorta, superior/inferior vena cava, intrapericardial pulmonary arteries/veins), supra-aortic arteries or brachiocephalic veins
	• Invades subclavian vessels, vertebral body, lamina, spinal canal, cervical nerve roots or brachial plexus (i.e., trunks, divisions, cords or terminal nerves) • Separate tumor nodule(s) in a different ipsilateral lobe than that of the primary



**Definition of Regional Lymph Node (N)**

<b>N Category</b>	<b>N Criteria</b>
<b>NX</b>	Regional lymph nodes cannot be assessed
<b>N0</b>	No tumor involvement of regional lymph node(s)
<b>N1</b>	Tumor involvement of ipsilateral peribronchial and/or ipsilateral hilar and/or ipsilateral intrapulmonary lymph node station(s), including involvement by direct extension
<b>N2</b>	Tumor involvement of ipsilateral mediastinal nodal station(s) and/or subcarinal lymph node station
<b>N2a</b>	Tumor involvement of a single ipsilateral mediastinal nodal station or of the subcarinal nodal station
<b>N2b</b>	Tumor involvement of multiple ipsilateral mediastinal nodal stations with or without involvement of the subcarinal nodal station
<b>N3</b>	Tumor involvement of contralateral mediastinal, contralateral hilar, ipsilateral/ contralateral scalene, or ipsilateral/contralateral supraclavicular lymph node station(s)



## Definition of Distant Metastasis (M)

M Category	M Criteria
<b>cM0</b>	No distant metastasis
<b>cM1</b>	Distant metastasis
<b>cM1a</b>	Metastasis in pleural or pericardial nodules, and/or malignant pleural or pericardial effusions, and/or separate tumor nodule(s) in a contralateral lobe Note: Most pleural (pericardial) effusions with lung cancer are a result of the tumor. In a few patients, however, multiple microscopic examinations of pleural (pericardial) fluid are negative for tumor, and the fluid is non-bloody and not an exudate. If these elements and clinical judgment dictate that the effusion is not related to the tumor, the effusion should be excluded as a staging descriptor
<b>cM1b</b>	Single extrathoracic metastasis in a single organ system (including involvement of a single non-regional node)
<b>cM1c</b>	Multiple extrathoracic metastases in a single or multiple organ system(s)
<b>cM1c1</b>	Multiple extrathoracic metastases in a single organ system For example, the skeleton is considered one organ. Several metastases in a single bone or several metastases in several bones are classified as M1c1
<b>cM1c2</b>	Multiple extrathoracic metastases in multiple organ systems
<b>pM1</b>	Microscopic confirmation of distant metastasis
<b>pM1a</b>	Microscopic confirmation of metastasis in pleural or pericardial nodules, and/or malignant pleural or pericardial effusions, and/or separate tumor nodule(s) in a contralateral lobe Note: Most pleural (pericardial) effusions with lung cancer are a result of the tumor. In a few patients, however, multiple microscopic examinations of pleural (pericardial) fluid are negative for tumor, and the fluid is non-bloody and not an exudate. If these elements and clinical judgment dictate that the effusion is not related to the tumor, the effusion should be excluded as a staging descriptor
<b>pM1b</b>	Microscopic confirmation of single extrathoracic metastasis in a single organ system (including involvement of a single non-regional node)
<b>pM1c</b>	Microscopic confirmation of multiple extrathoracic metastases in a single or multiple organ system(s)
<b>pM1c1</b>	Microscopic confirmation of multiple extrathoracic metastases in a single organ system For example, the skeleton is considered one organ. Several metastases in a single bone or several metastases in several bones are classified as M1c1
<b>pM1c2</b>	Microscopic confirmation of multiple extrathoracic metastases in multiple organ systems



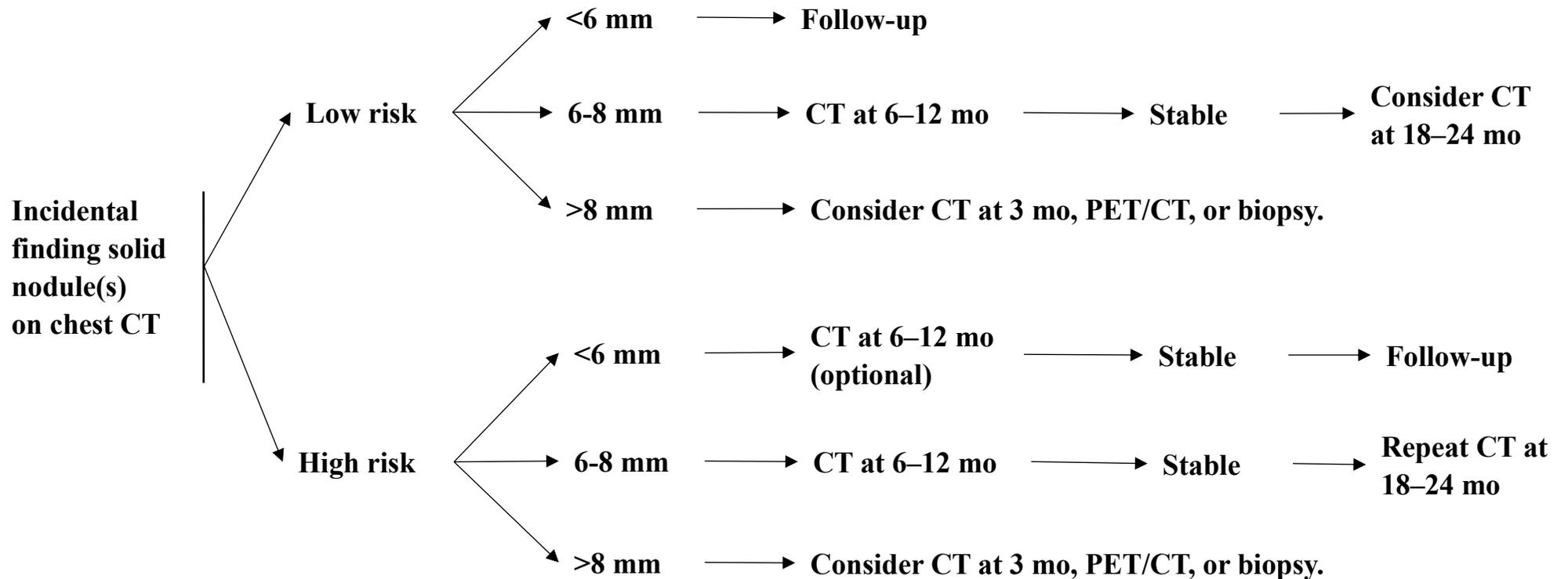
AJCC Prognostic Stage Groups

T	N	M	The stage group
TX	N0	M0	Occult carcinoma
Tis	N0	M0	0
T1mi-T1a	N0	M0	IA1
T1b	N0	M0	IA2
T1c	N0	M0	IA3
T2a	N0	M0	IB
T2b	N0	M0	IIA
T1	N1	M0	IIA
T1	N2a	M0	IIB
T2a-T2b	N1	M0	IIB
T3	N0	M0	IIB
T4	N0	M0	IIIA
T3-T4	N1	M0	IIIA
T1	N2b	M0	IIIA
T2-T3	N2a	M0	IIIA
T2-T3	N2b	M0	IIB
T4	N2a-N2b	M0	IIB
T1-T2	N3	M0	IIB
T3-T4	N3	M0	IIIC
Any T	Any N	M1a-M1b	IVA
Any T	Any N	M1c1-M1c2	IVB

T/M	Description	N0	N1	N2		N3
				N2a	N2b	
T1	T1a ≤ 1cm	IA1	IIA	IIB	IIIA	IIIB
	T1b > 1 to ≤ 2 cm	IA2	IIA	IIB	IIIA	IIIB
	T1c > 2 to ≤ 3 cm	IA3	IIA	IIB	IIIA	IIIB
T2	T2a Visceral pleura / central invasion	IB	IIB	IIIA	IIIB	IIIB
	T2a > 3 to ≤ 4 cm	IB	IIB	IIIA	IIIB	IIIB
	T2b > 4 to ≤ 5 cm	IIA	IIB	IIIA	IIIB	IIIB
T3	T3 > 5 to ≤ 7 cm	IIB	IIIA	IIIA	IIIB	IIIC
	T3 invasion	IIB	IIIA	IIIA	IIIB	IIIC
	T3 Same lobe tumor nodule	IIB	IIIA	IIIA	IIIB	IIIC
T4	T4 > 7 cm	IIIA	IIIA	IIIB	IIIB	IIIC
	T4 invasion	IIIA	IIIA	IIIB	IIIB	IIIC
	T4 Ipsilateral tumor nodule	IIIA	IIIA	IIIB	IIIB	IIIC
M1	M1a Pleural / Pericardial dissemination	IVA	IVA	IVA	IVA	IVA
	M1a Contralateral tumor nodule	IVA	IVA	IVA	IVA	IVA
	M1b Single extrathoracic lesion	IVA	IVA	IVA	IVA	IVA
	M1c1 Multiple lesions, 1 organ system	IVB	IVB	IVB	IVB	IVB
	M1c2 Multiple lesions, >1 organ system	IVB	IVB	IVB	IVB	IVB

二、檢查

FINDINGS	FOLLOW-UP
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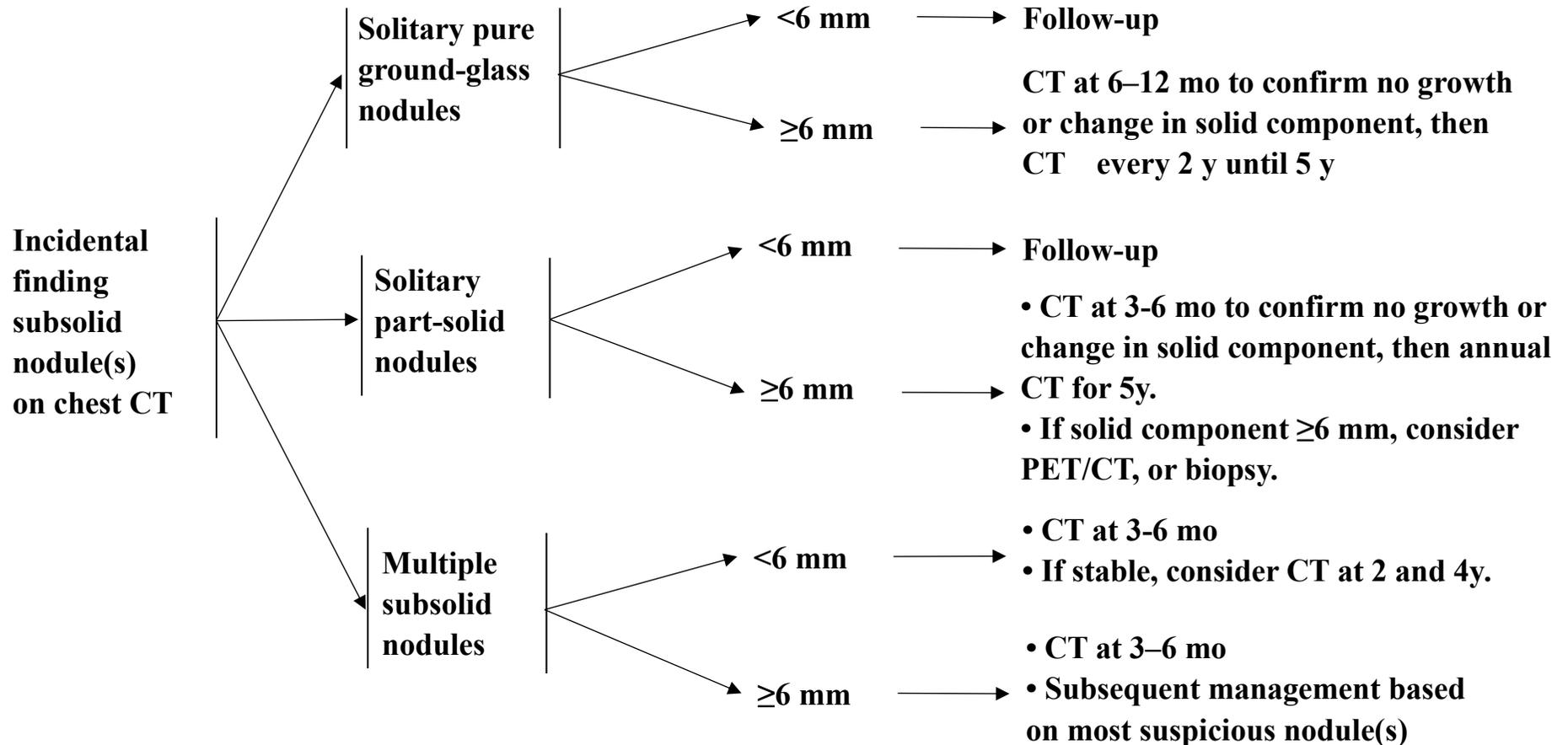
註:

Low risk = minimal or absent history of smoking or other known risk factors.

High risk = history of smoking or other known risk factors. Known risk factors include history of lung cancer in a first-degree relative or exposure to asbestos, radon, or uranium.



FINDINGS	FOLLOW-UP
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### 三、非小細胞肺癌治療指引

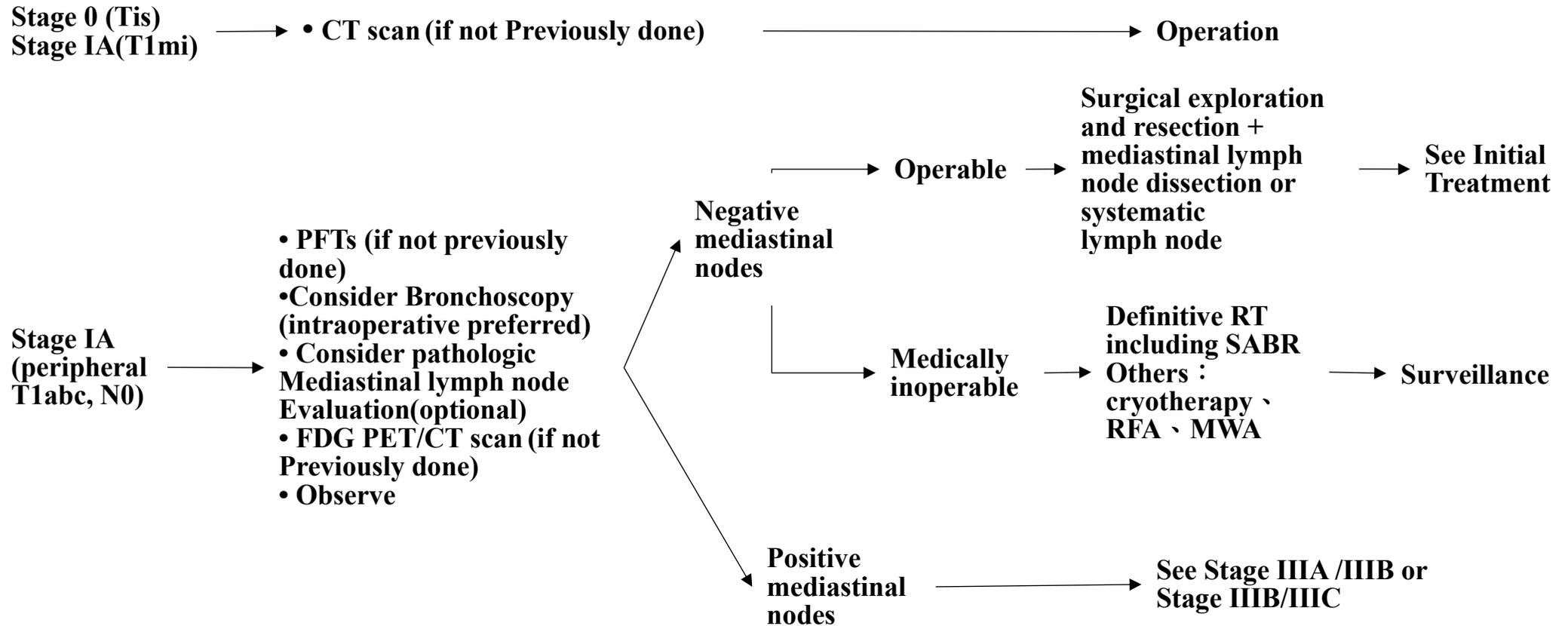
WORK-UP	CLINICAL STAGE
<p><b>主要檢查(Major Examination)</b></p> <ul style="list-style-type: none"> <li>✓ Pathology review</li> <li>✓ H&amp;P (include performance status + weight loss)</li> <li>✓ CT chest and upper abdomen with contrast, including adrenals</li> <li>✓ Brain MRI</li> <li>✓ FDG-PET/CT scan or Bone scan</li> </ul> <p><b>其他(Others)</b></p> <ul style="list-style-type: none"> <li>• CBC, platelets</li> <li>• Chemistry profile</li> <li>• For stage IB-III A</li> <li>1) PDL-1 testing</li> <li>2) Molecular testing for EGFR, ALK(especially adenocarcinoma prefer);</li> <li>3) Evaluate for perioperative therapy</li> <li>• Smoking cessation advice, counseling, and pharmacotherapy</li> <li>• Integrate palliative care</li> <li>• For tools to aid in the optimal assessment and management of older adults, see the NCCN Guidelines for Older Adult Oncology</li> </ul>	<ul style="list-style-type: none"> <li>Stage 0 (Tis), Stage IA (T1mi) → See Pretreatment Evaluation (<a href="#">Page 10</a>)</li> <li>Stage IA, peripheral (T1abc,N0) → See Pretreatment Evaluation (<a href="#">Page 10</a>)</li> <li>Stage IB, peripheral (T2a,N0); Stage I central (T1-T2a, N0); Stage II (T1-T2ab, N1;T2b, N0); Stage IIB (T1,N2a;T3,N0) ; Stage IIIA (T3, N1) → See Pretreatment Evaluation (<a href="#">Page 11</a>)</li> <li>Stage IIB (T3 invasion, N0) ; Stage IIIA (T4 invasion, N0-1; T3, N1) → See Pretreatment Evaluation (<a href="#">Page 13</a>)</li> <li>Stage IIB-III A (T1-3, N2ab);Stage IIIB(T2-3, N2b) → See Pretreatment Evaluation (<a href="#">Page 16</a>)</li> <li>Separate pulmonary nodule(s)(Stage IIB, IIIA, IV) → See Pretreatment Evaluation (<a href="#">Page 16</a>)</li> <li>Stage IIIA(T4,N0-1);Stage IV(contralateral Lung) → See Pretreatment Evaluation (<a href="#">Page 16</a>)</li> <li>Multiple Lung Cancers → See Pretreatment Evaluation (<a href="#">Page 19</a>)</li> <li>Stage IIIB (T1-2, N3) ;Stage IIIC (T3, N3) → See Pretreatment Evaluation (<a href="#">Page 21</a>)</li> <li>Stage IIIB (T4, N2) ; Stage IIIC (T4, N3) → See Pretreatment Evaluation (<a href="#">Page 22</a>)</li> <li>Stage IVA (M1a) (pleural or pericardial effusion) → See Pretreatment Evaluation (<a href="#">Page 22</a>)</li> <li>Stage IVA (M1b) and IVB (M1c) → See Pretreatment Evaluation (<a href="#">Page 23</a>)</li> <li>Pleural metastases or disseminated metastasis → See Pretreatment Evaluation (<a href="#">Page 28</a>)</li> </ul>

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

CLINICAL ASSESSMENT	PRETREATMENT EVALUATION	INITIAL TREATMENT
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註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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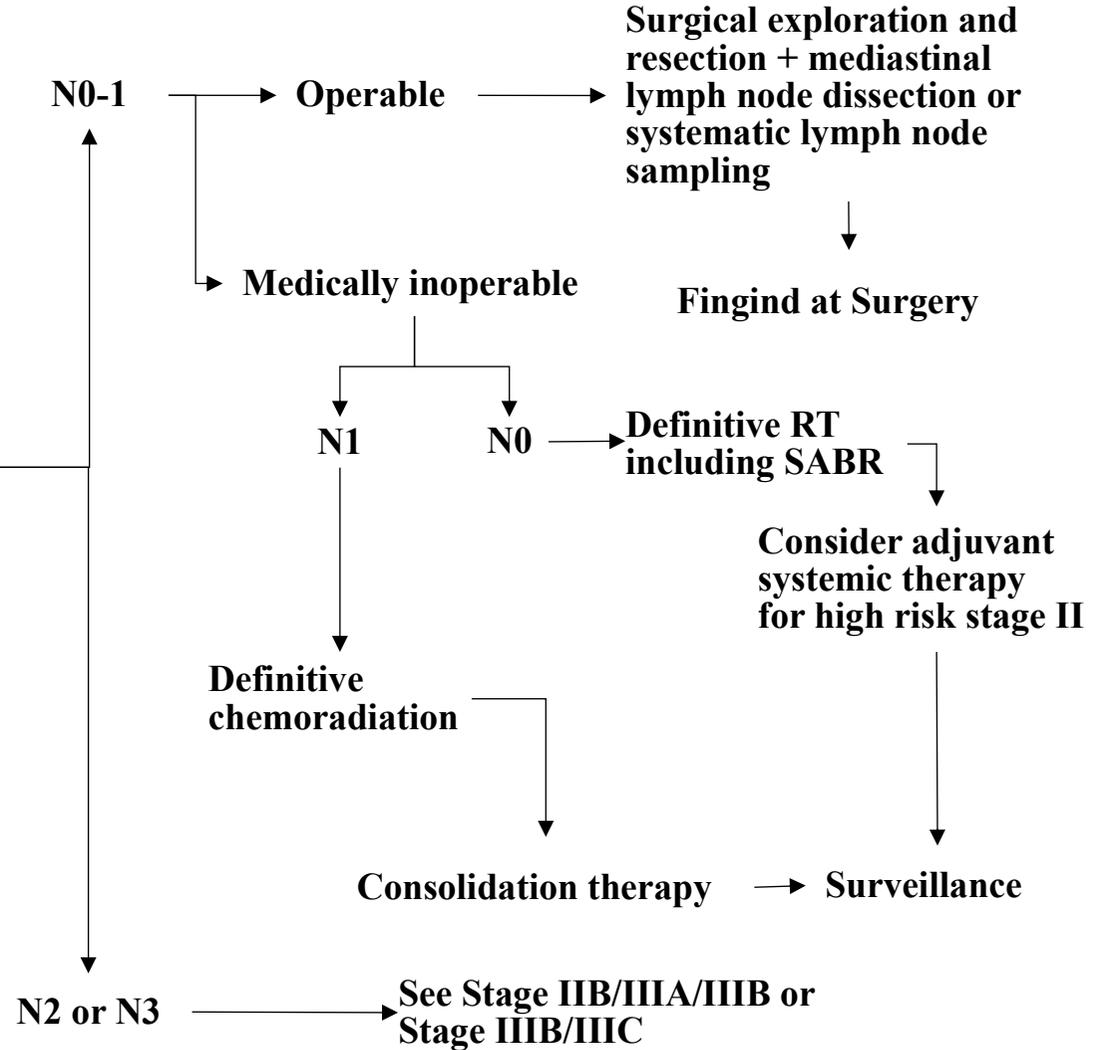
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CLINICAL ASSESSMENT	PRETREATMENT EVALUATION	INITIAL TREATMENT
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Stage IB  
(peripheral T2a, N0)  
Stage I  
(central T1-T2a, N0)  
Stage II  
(T1-T2ab, N1; T2b, N0)  
Stage IIB  
(T1, N2a; T3, N0)  
Stage IIIA (T3, N1)

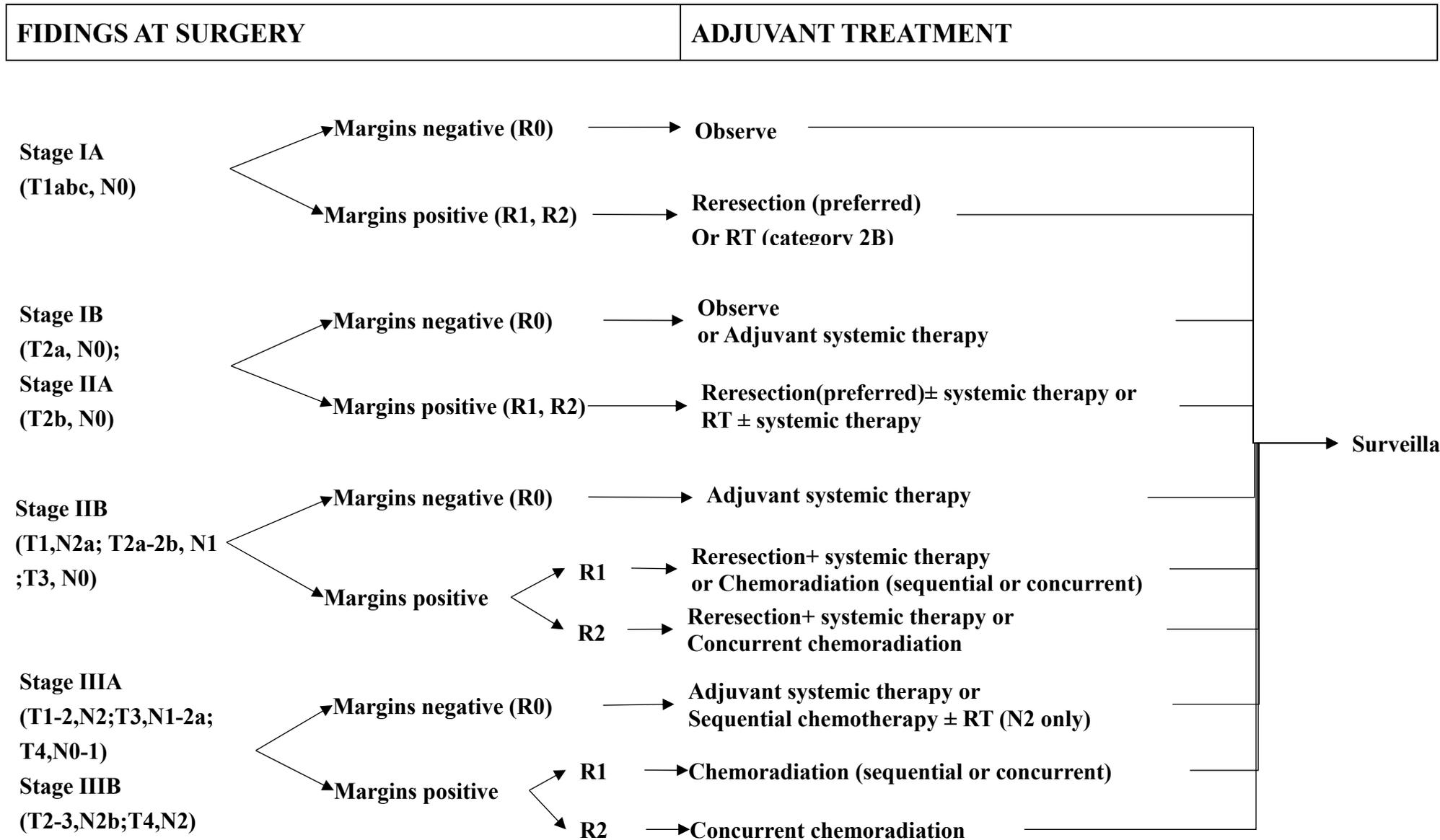
- PFTs (if not previously done)
- Bronchoscopy
- Pathologic mediastinal lymph node evaluation (optional)
- • PET /CT scan (if not Previously done)
- Brain MRI with contrast (Stage II, IIIA) (Stage IB [optional])



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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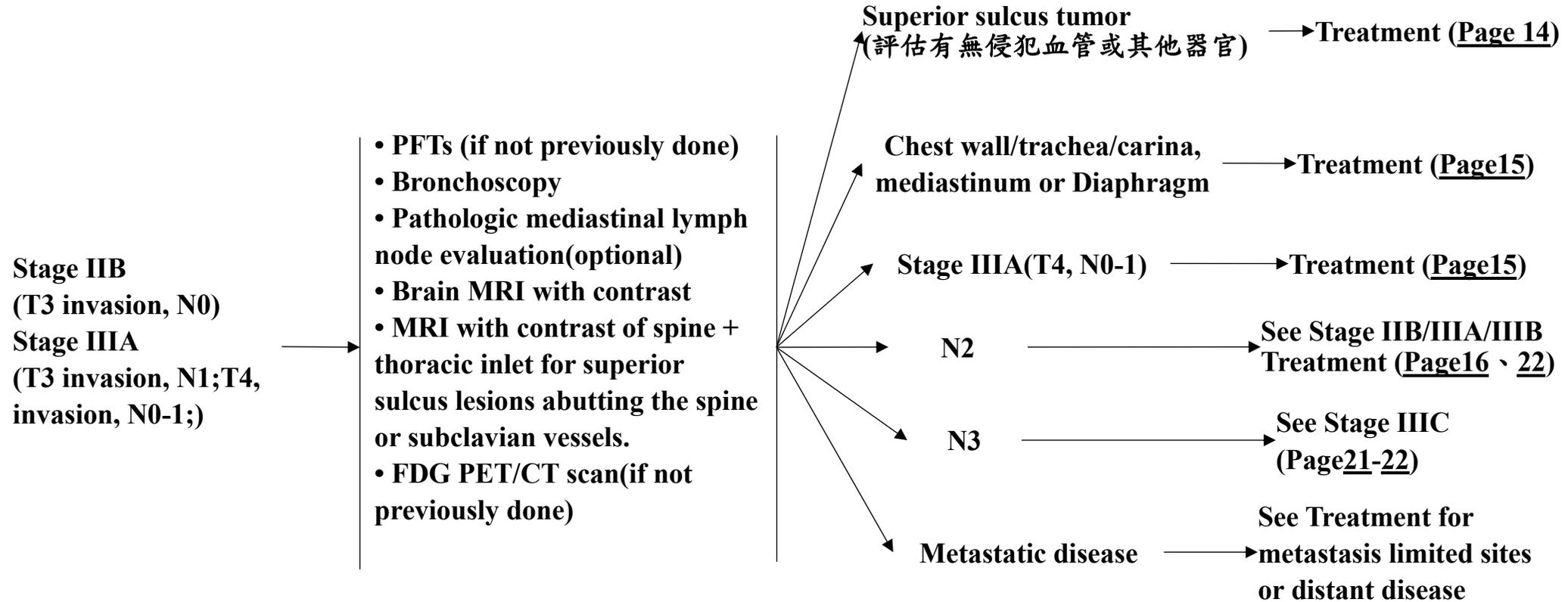


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CLINICAL ASSESSMENT	PRETREATMENT EVALUATION	CLINICAL EVALUATION
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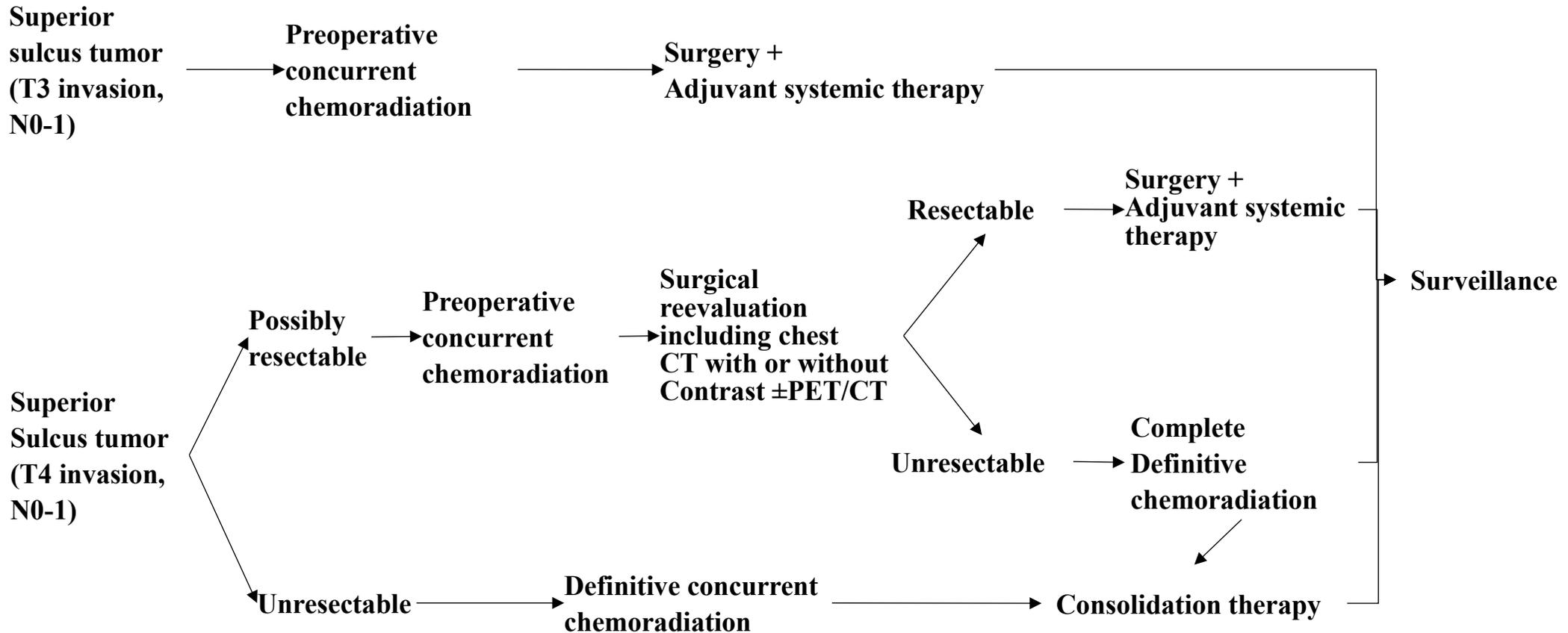


註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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CLINICAL PRESENTATION	INITIAL TREATMENT	ADJUVANT TREATMENT
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#: osimertinib :建議治療 3 年以上

註: pembrolizumab (kevtruda)適合 II-IIIB(ACJ8th)或 IB 且 Tumor>4cm.PDL1>1%,可考慮自費使用 from the phase 3 KEYNOTE-091 trial。

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

CLINICAL PRESENTATION	INITIAL TREATMENT	ADJUVANT TREATMENT
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Chest wall, trachea/carina, mediastinum or diaphragm (T3 invasion, N0-1; Resectable T4, invasion, N0-1)

Surgery

Margins negative (R0)

Adjuvant systemic therapy

Reresection + systemic therapy or Chemoradiation (sequential or concurrent)

Margins positive

R1

R2

Reresection + systemic therapy or Concurrent chemoradiation

Surveillance (page 19)

or

Stage IIIA (T4, N0-1) resectable

Concurrent Chemoradiation or Chemotherapy

Surgical reevaluation including chest CT ± PET/CT

Surgery

Margins negative (R0)

Observe or Adjuvant systemic therapy

Margins positive (R1, R2)

Reresection and/or RT boost

Adjuvant systemic therapy

Stage IIIA (T4, N0-1) Unresectable

Definitive concurrent chemoradiation (category 1)

Consolidation therapy

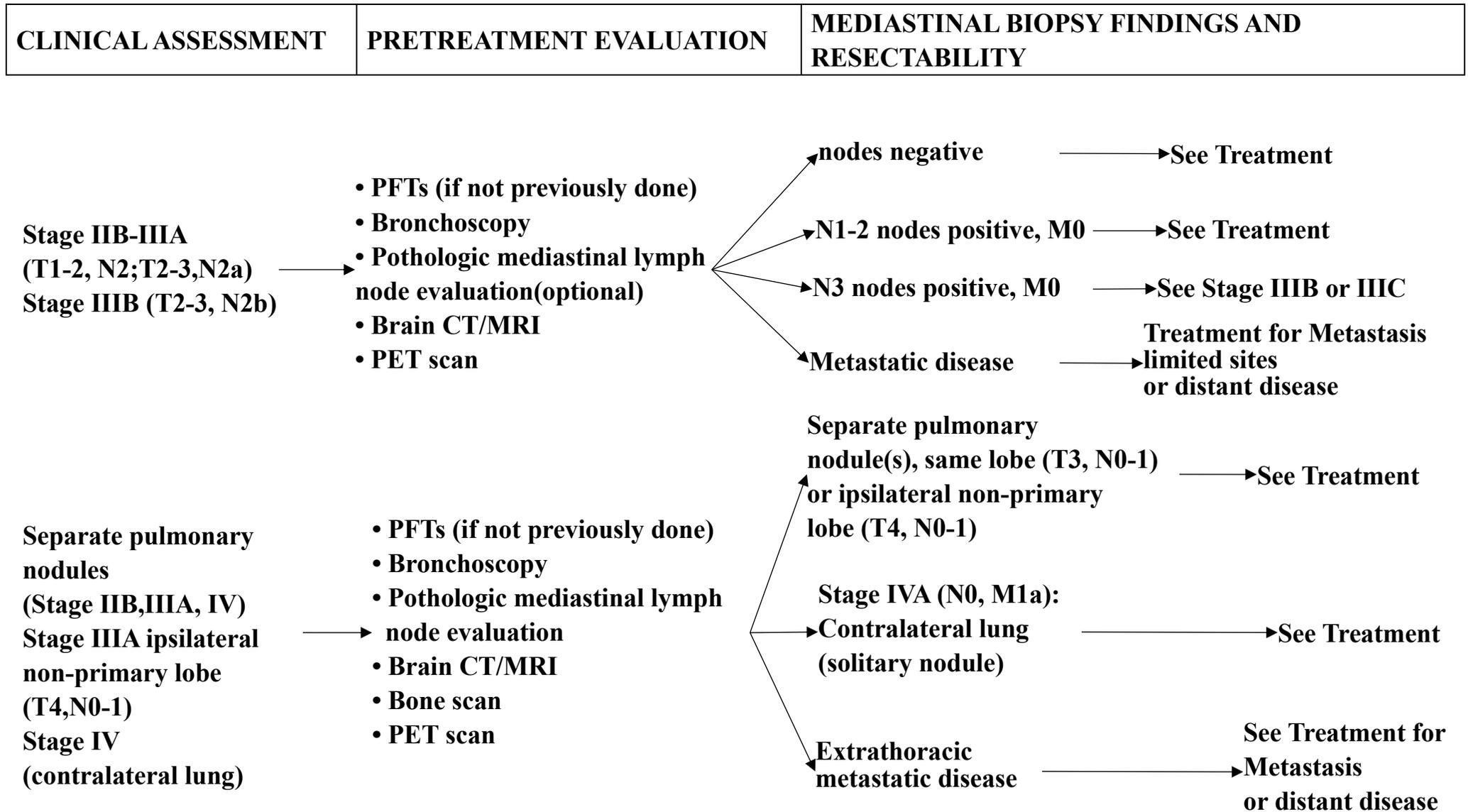
#: osimertinib :建議治療 3 年以上

註: pembrolizumab (kevtroda) 適合 II-IIIIB (ACJ8th) 或 IB 且 Tumor > 4cm, PDL1 > 1%, 可考慮自費使用 from the phase 3 KEYNOTE-091 trial。

註 1: 實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論 (SDM)

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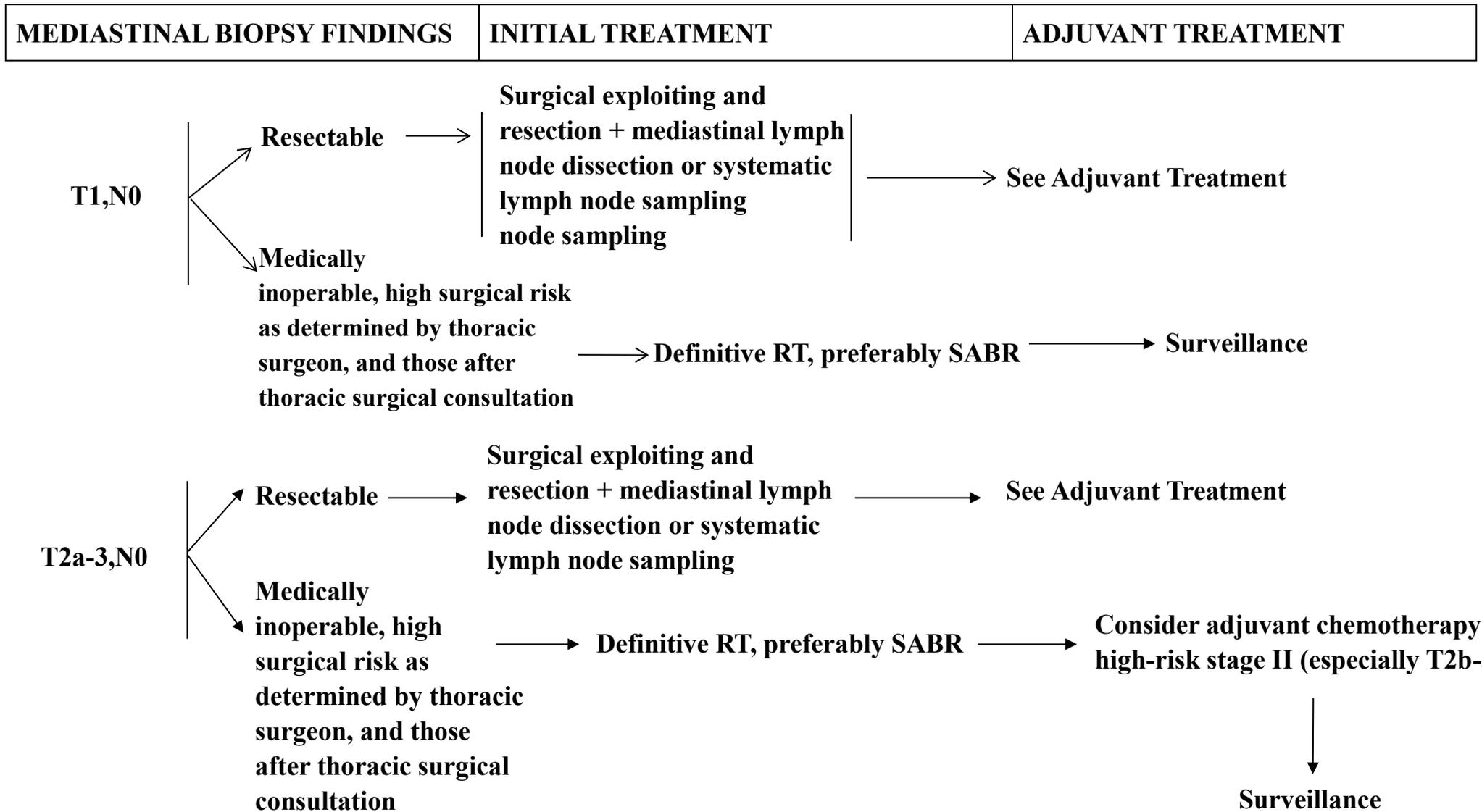
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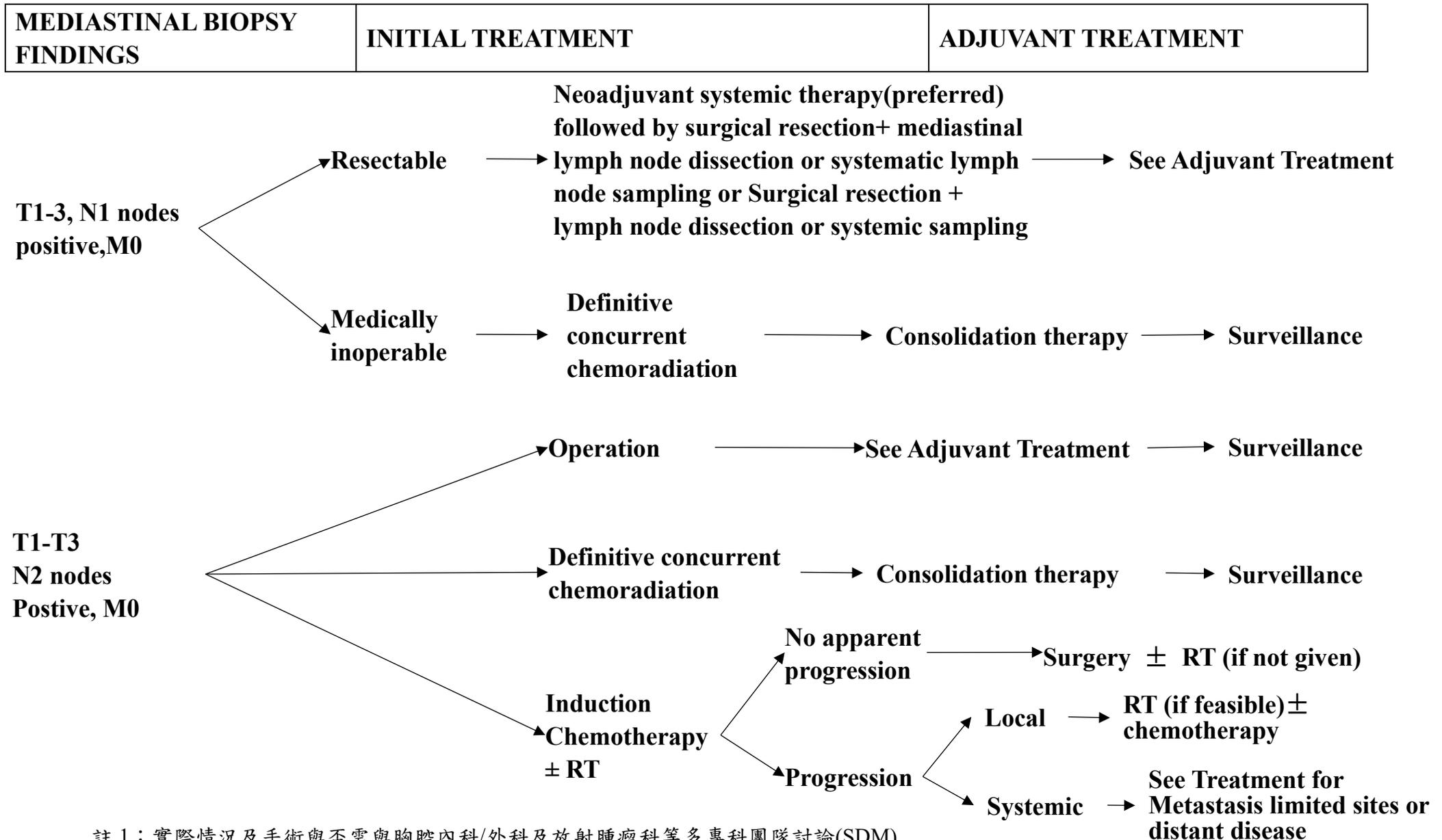
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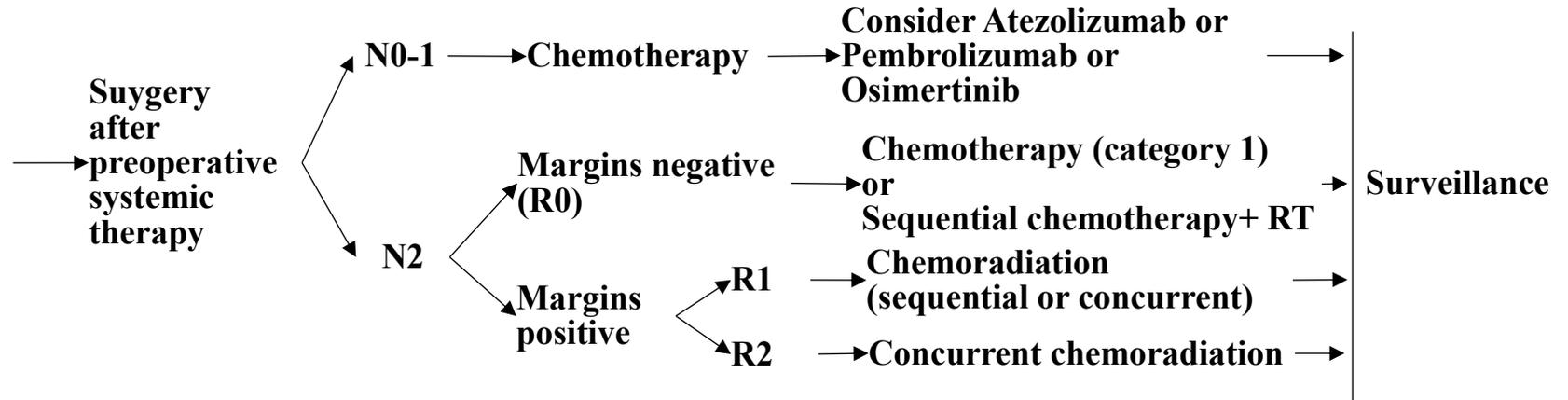
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CLINICAL PRESENTATION	ADJUVANT TRETMENT
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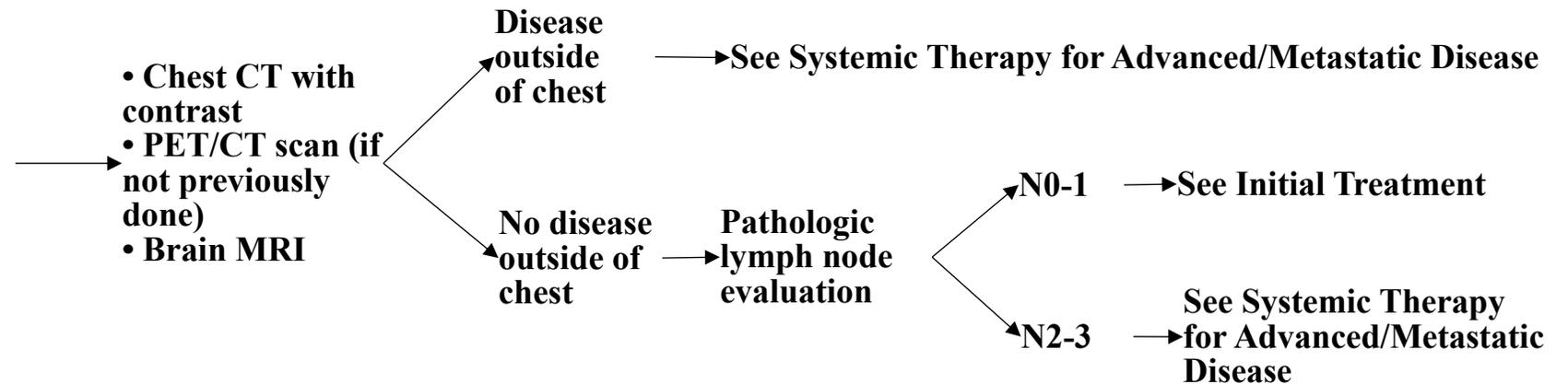
Separate pulmonary nodule(s), same lobe (T3, N0-1), or ipsilateral non-primary lobe (T4, N0-1)  
(排除 micro primary lung cancer)



Stage IVA (N0, M1a)  
Contralateral lung (solitary nodule)



Suspected multiple lung cancers (based on the presence of biopsy-proven synchronous lesions or history of lung cancer)



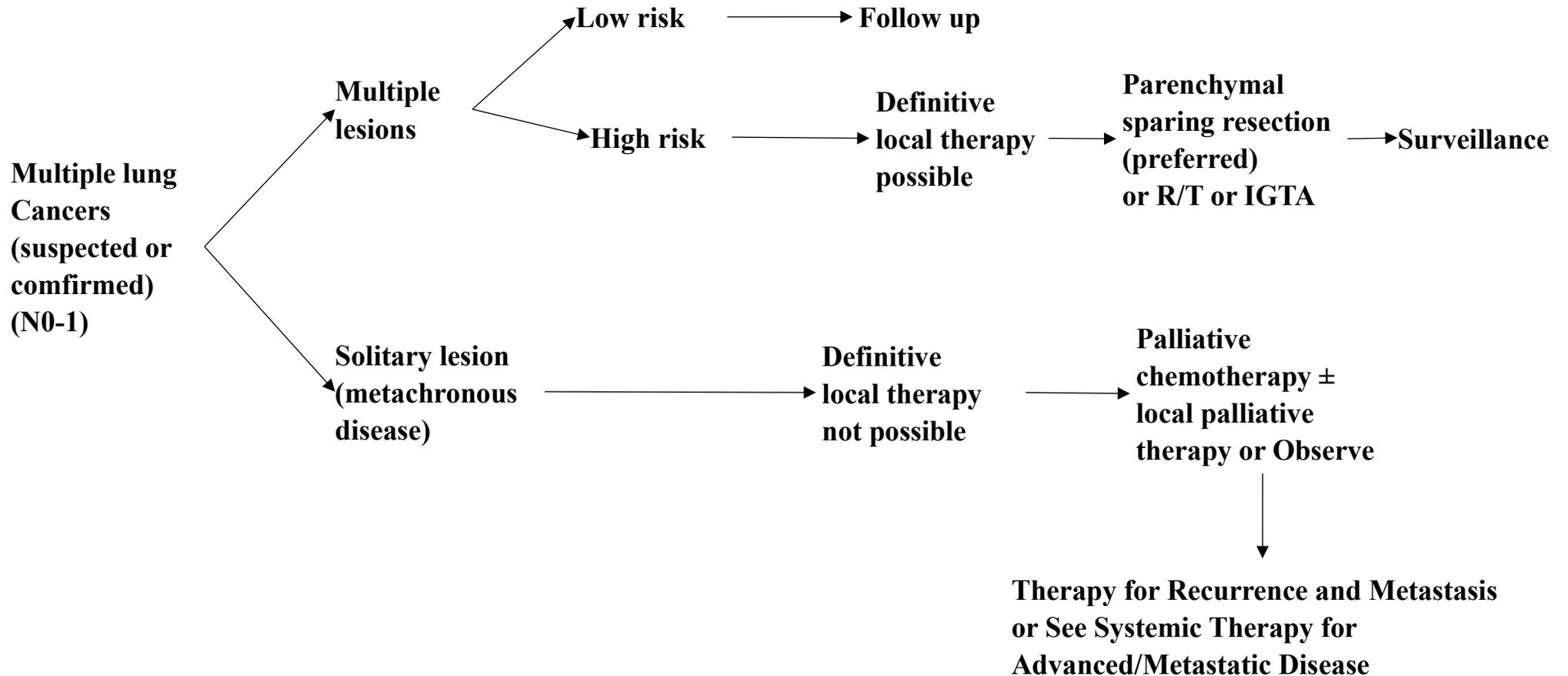
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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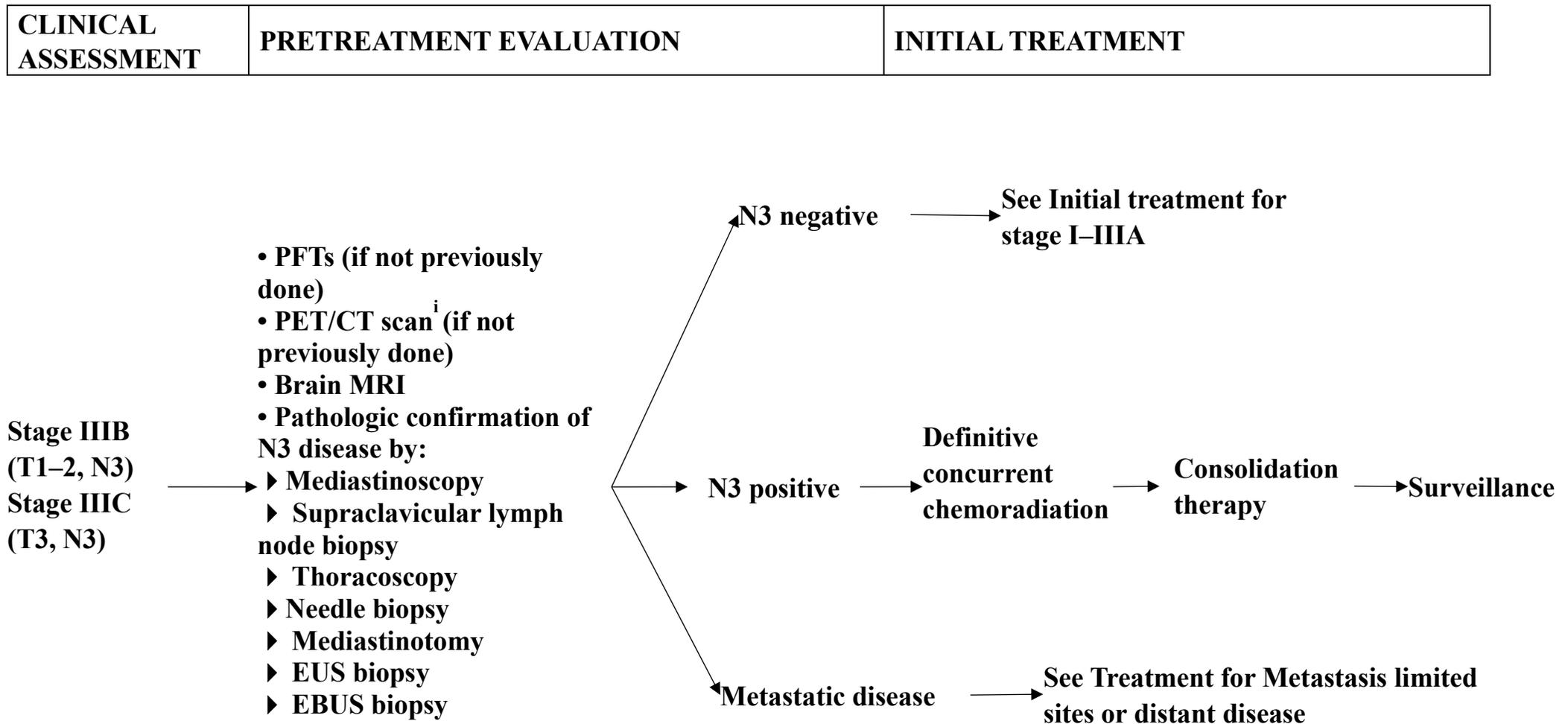
<b>CLINICAL PRESENTATION</b>	<b>INITIAL TREATMENT</b>
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註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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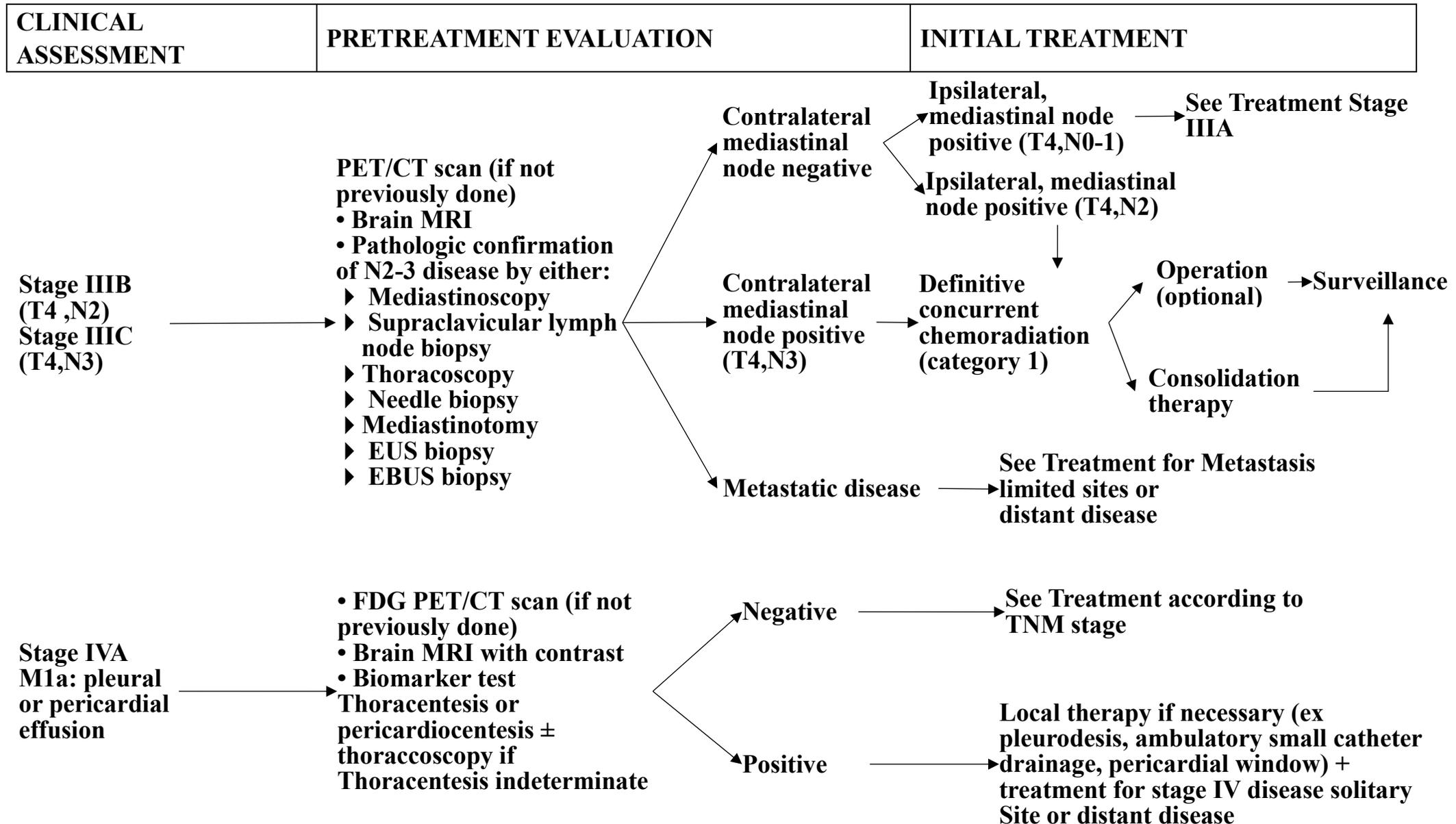
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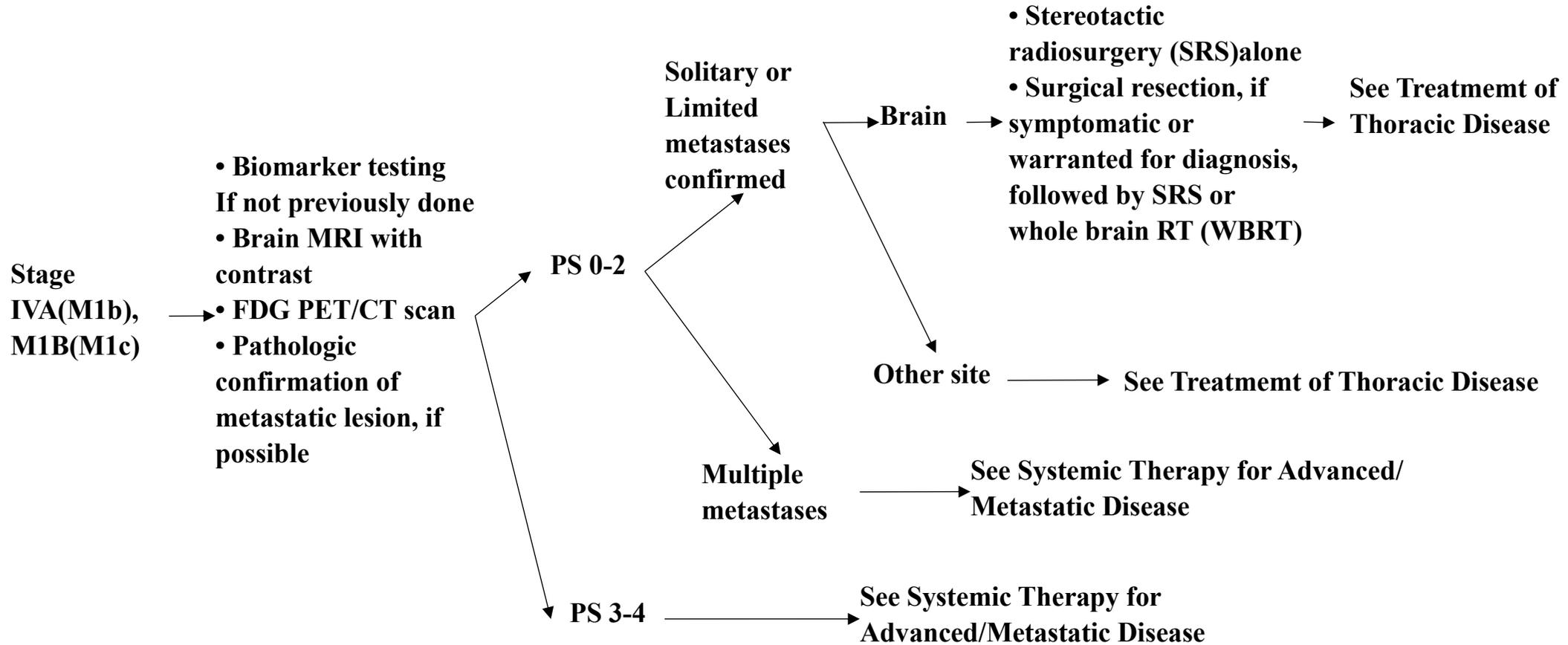


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Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

CLINICAL ASSESSMENT	PRETREATMENT EVALUATION	INITIAL TREATMENT
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StageIV 若接受 TKI、化療、電療後若可開刀，可與胸腔內/外科等多專科團隊討論

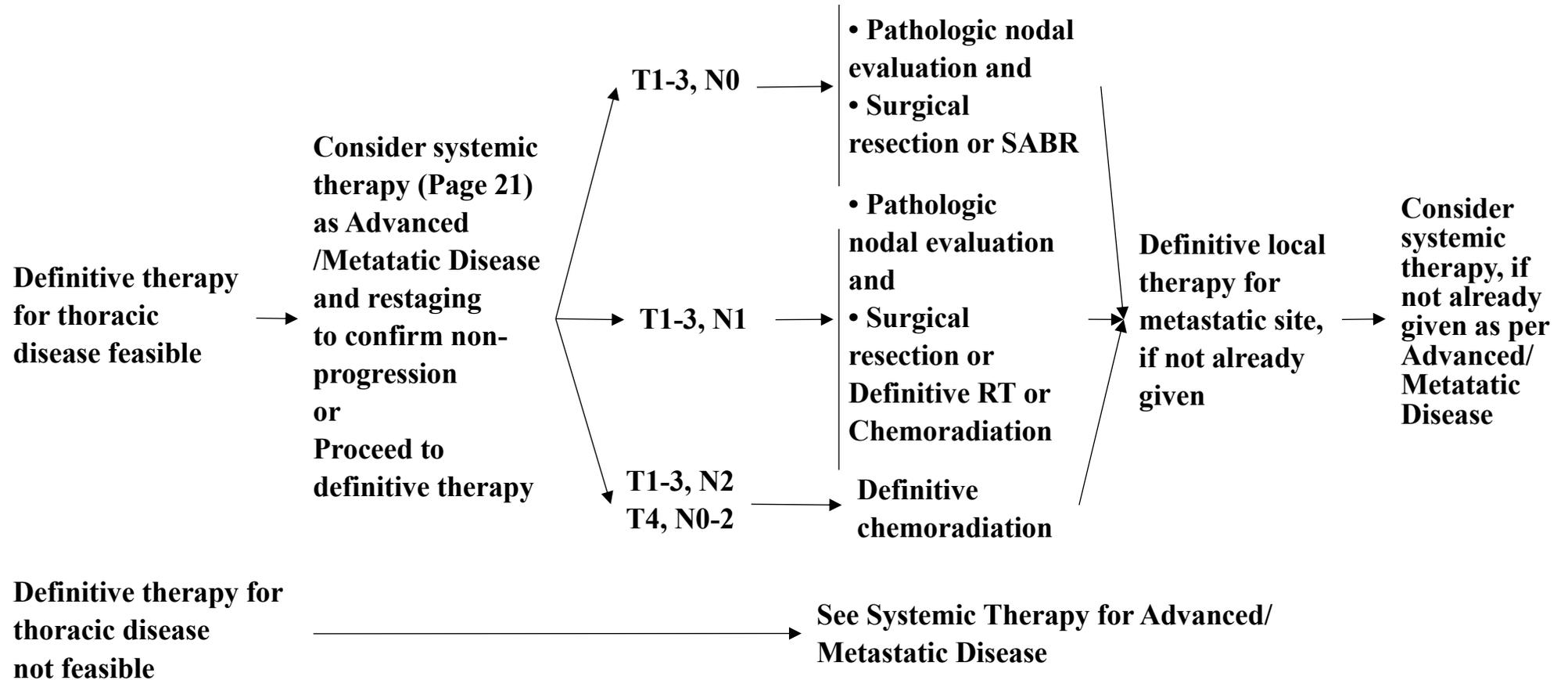
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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TREATMENT OF THORACIC DISEASE



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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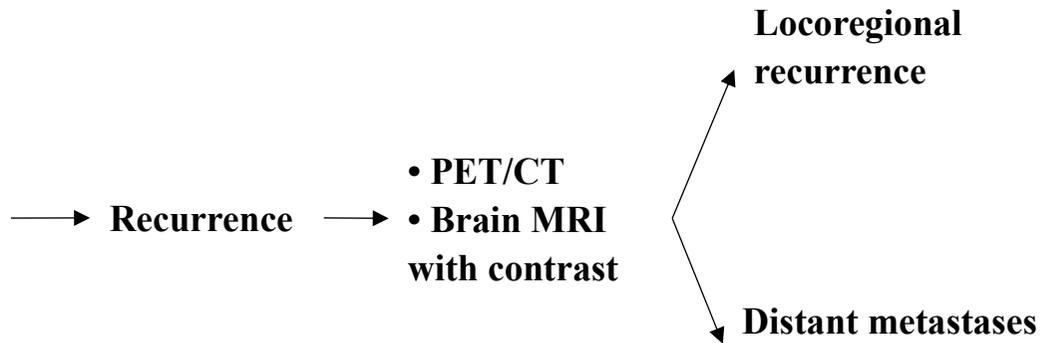
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



### SURVEILLANCE AFTER COMPLETION OF DEFINITIVE THERAPY

#### No evidence of clinical/radiographic disease

- Stage I–II (primary treatment included surgery ± chemotherapy)
  - H&P and chest CT ± contrast every 3-6 mo for 2–3 y, then H&P and a LDCT annually
- Stage I–II (primary treatment included RT) or stage III or stage IV (oligometastatic with all sites treated with definitive intent)
  - H&P and chest CT ± contrast every 3–6 mo for 3 y, then H&P and chest CT ± contrast every 6 mo for 2 y, then H&P and a LDCT annually
  - Residual or new radiographic abnormalities may require more frequent imaging
- Smoking cessation advice, counseling, and pharmacotherapy
- PET/CT is not routinely indicated
- Brain MRI as clinically indicated based on risk assessment

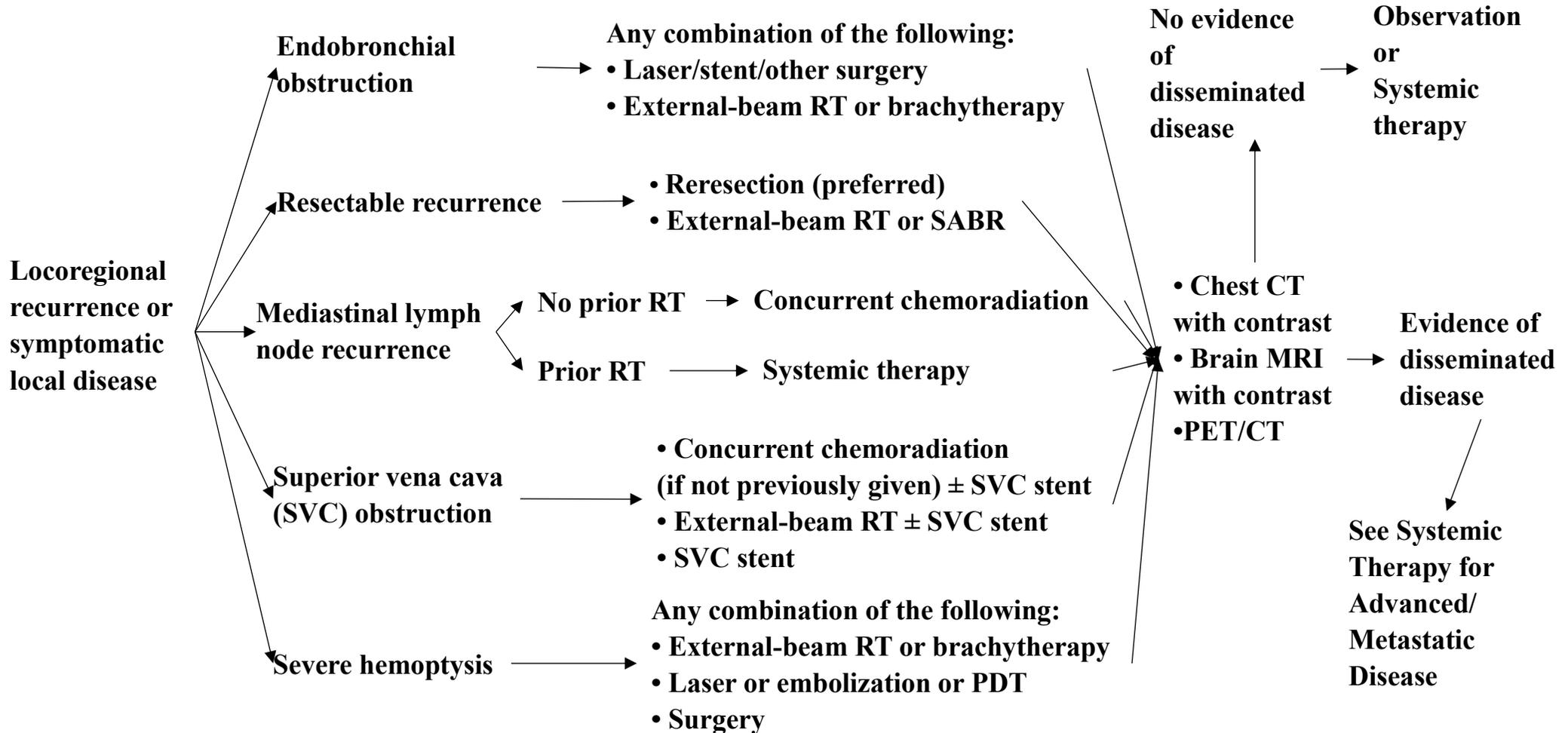


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**THERAPY FOR RECURRENCE AND METASIS**

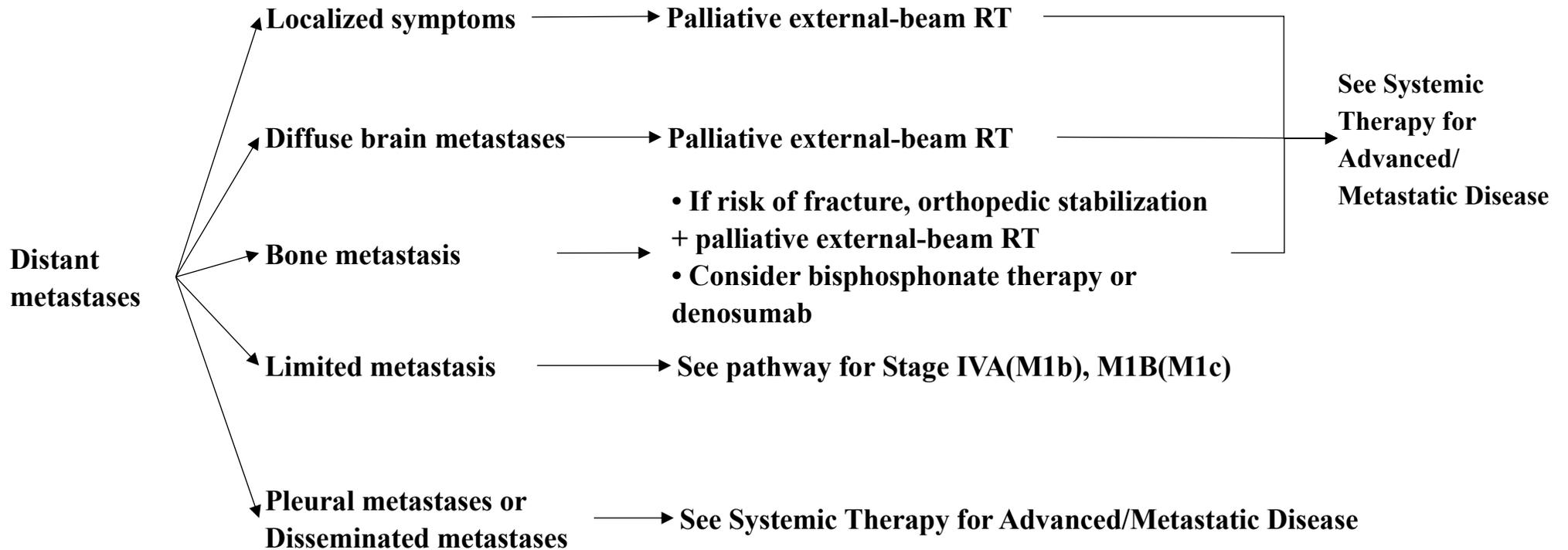


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Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

**THERAPY FOR RECURRENCE AND METASIS**

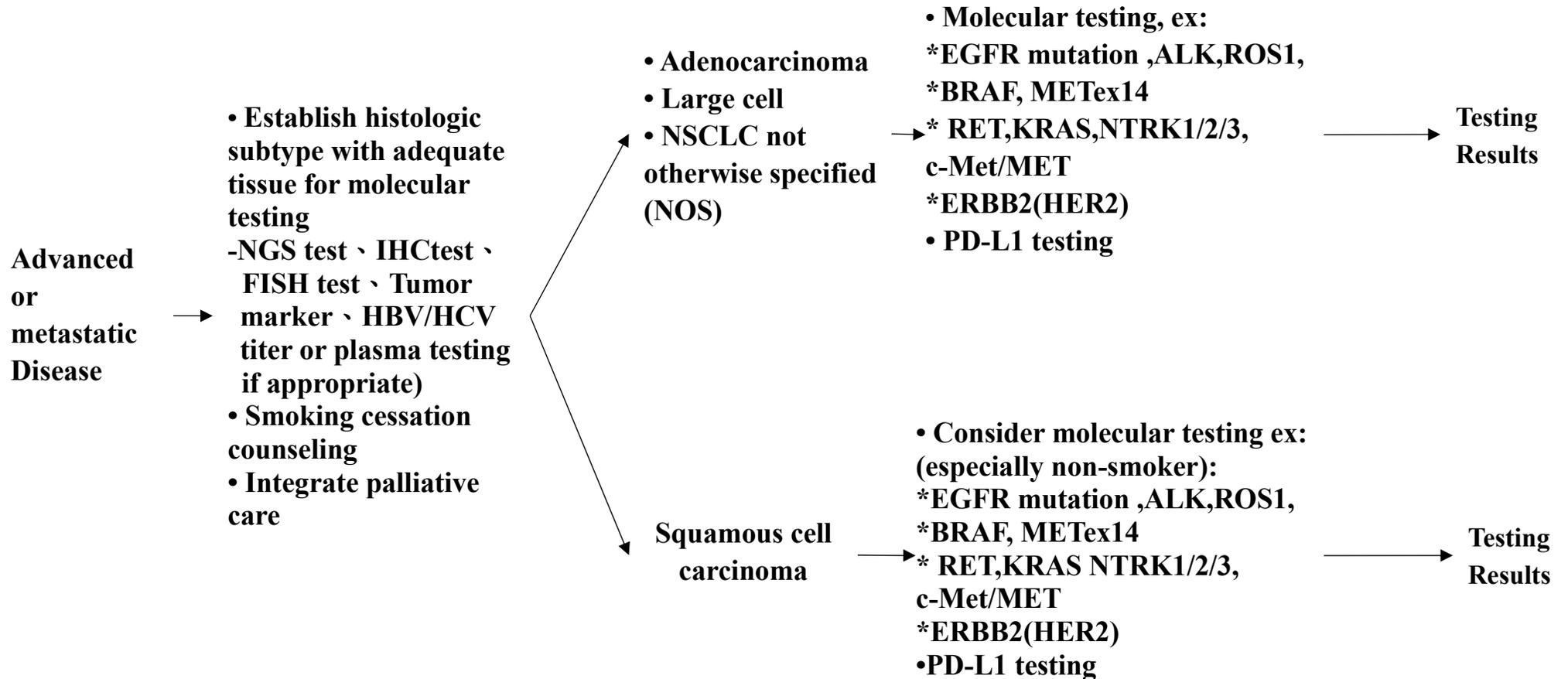


註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

CLINICAL PRESENTATION	HISTOLOGIC	TESTING SUBTYPE	TESTING RESULTS
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註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

## TESTING RESULTS

<b>EGFR exon 19 deletion or L858R mutation positive</b>	<b><u>Page 30</u></b>
<b>EGFR S768I, L861Q, and/or G719X mutation positive</b>	<b><u>Page 33</u></b>
<b>EGFR exon 20 insertion mutation positive</b>	<b><u>Page 34</u></b>
<b>KRAS G12C mutation positive</b>	<b><u>Page 35</u></b>
<b>ALK gene fusion</b>	<b><u>Page 36</u></b>
<b>ROS1 gene fusion</b>	<b><u>Page 39</u></b>
<b>BRAF V600E mutation</b>	<b><u>Page 41</u></b>
<b>NTRK1/2/3 gene fusion</b>	<b><u>Page 42</u></b>
<b>METex14 skipping mutation</b>	<b><u>Page 43</u></b>
<b>RET gene fusion</b>	<b><u>Page 44</u></b>
<b>ERBB2 (HER2) mutation</b>	<b><u>Page 45</u></b>
<b>NRG1 gene fusion positive</b>	<b><u>Page 46</u></b>
<b>PD-L1 <math>\geq 50\%</math> and negative for actionable molecular biomarkers above</b>	<b><u>Page 47</u></b>
<b>PD-L1 <math>\geq 1\%</math>–<math>49\%</math> and negative for actionable molecular biomarkers above</b>	<b><u>Page 48</u></b>

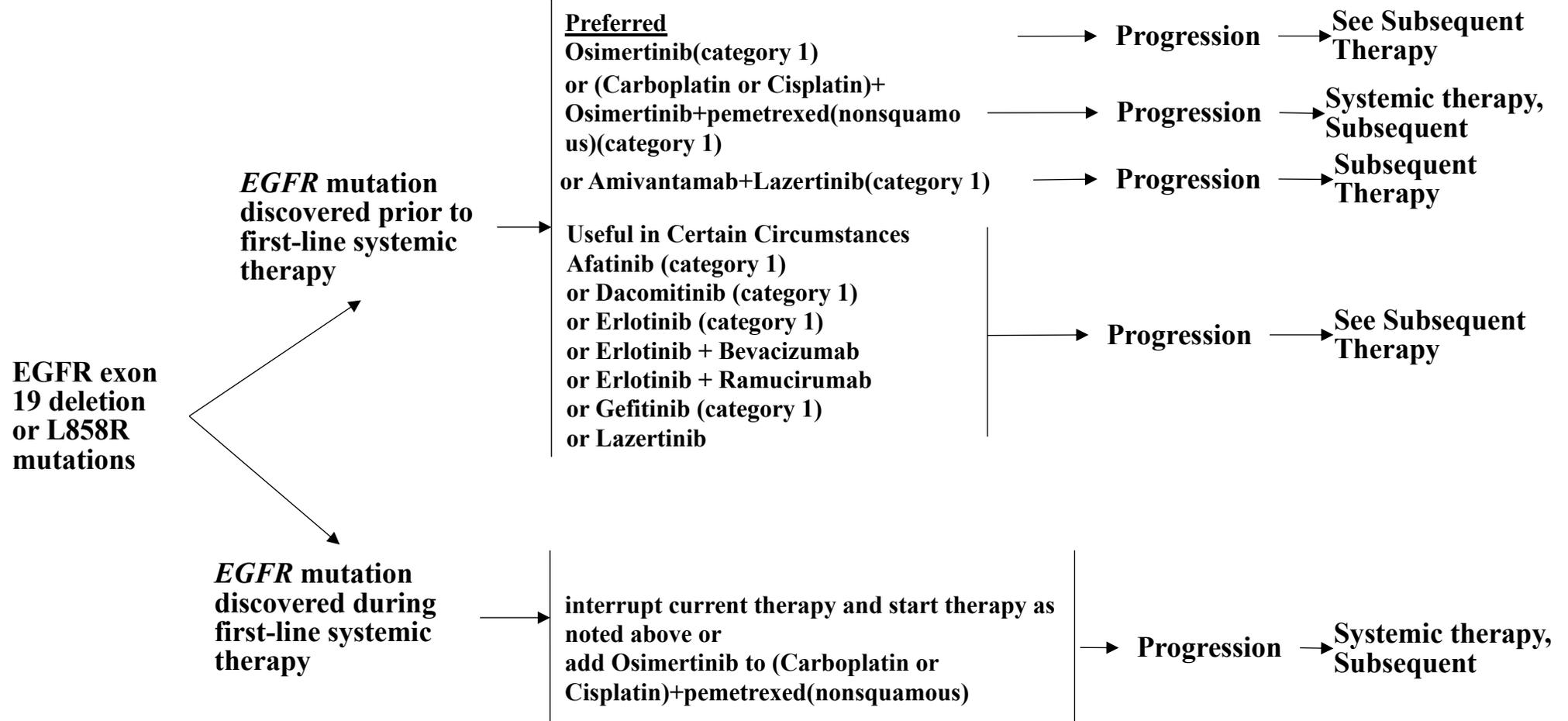
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



<b>EGFR EXON 19 DELETION OR L858R MUTATIONS</b>	<b>FIRST-LINE THERAPY</b>
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Stage IV 若接受 TKI、化療、電療後若可開刀，可與胸腔內/外科等多專科團隊討論

<sup>a</sup>Clinical Trials

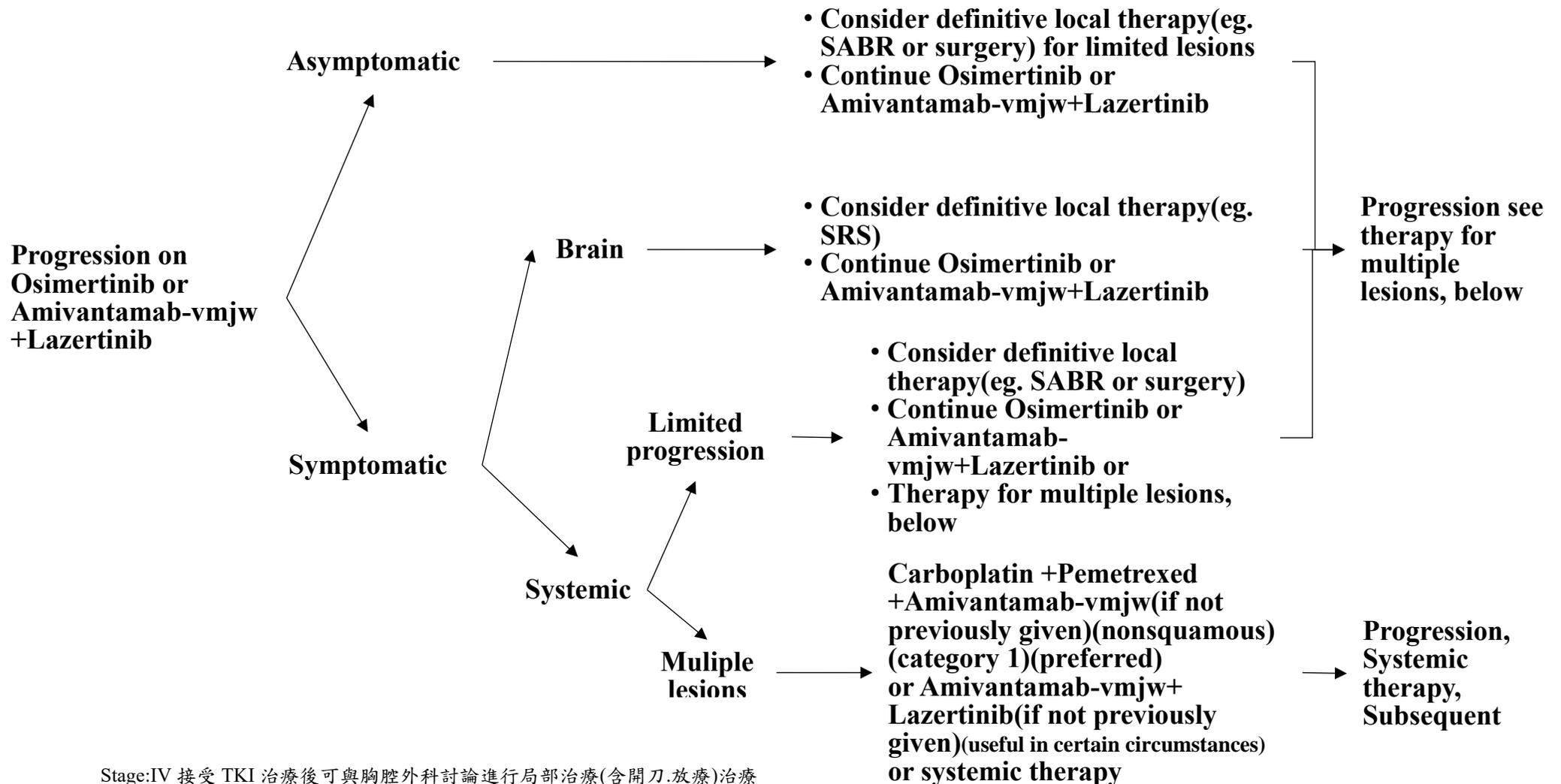
<sup>b</sup>建保條件：限單獨使用於(1)具有 EGFR Exon 19 Del 基因突變且無腦轉移 (non-CNS) 之轉移性 (第IV期) 肺腺癌病患之第一線治療。(2)先前已使用過 EGFR 標靶藥物 Gefitinib、Erlotinib 或 Afatinib 治療失敗，且具有 EGFR T790M 基因突變之局部侵犯性或轉移性之非小細胞肺癌之第二線治療用藥。

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

EGFR EXON 19 DELETION OR L858R MUTATIONS	SUBSEQUENT THERAPY
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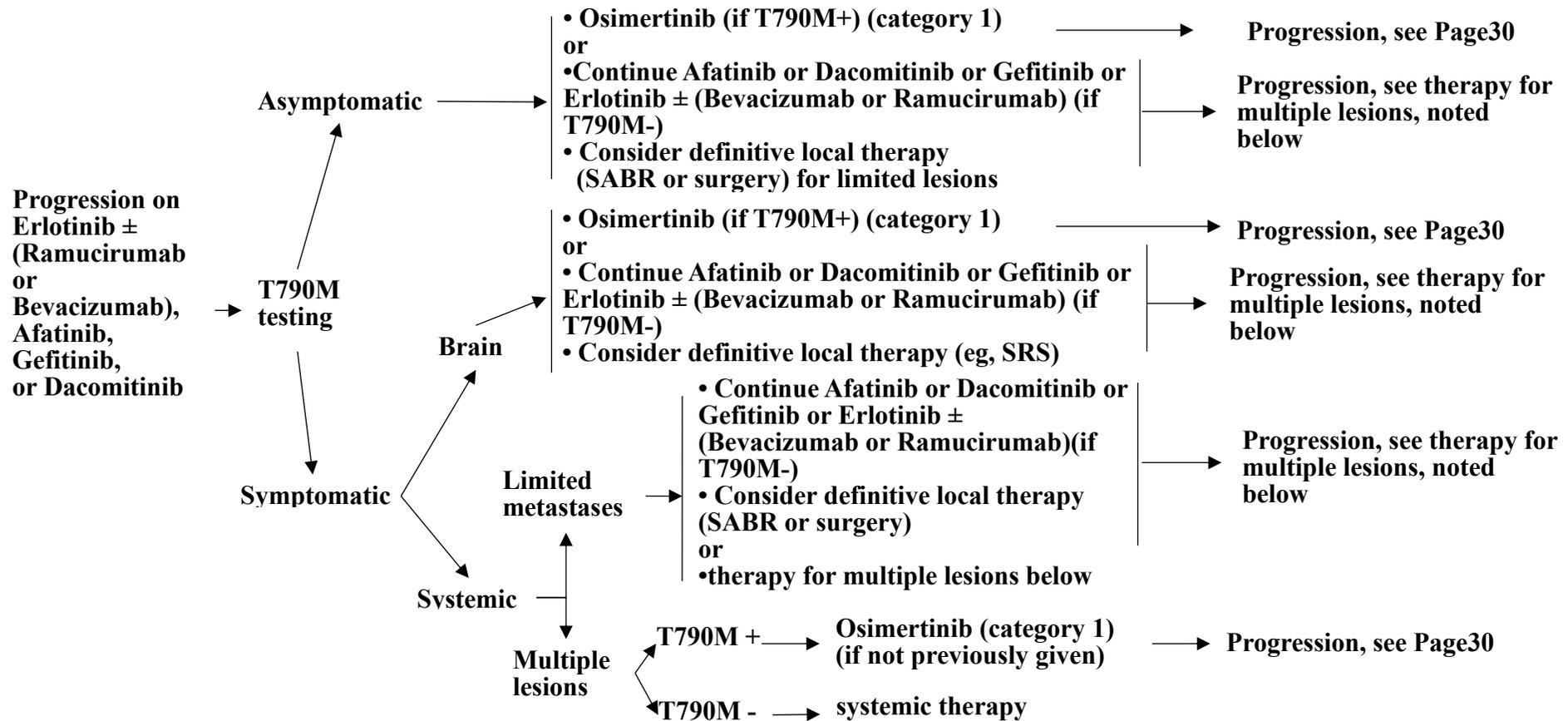
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

<b>EXON 19 DELETION OR L858R MUTATION)</b>	<b>SUBSEQUENT THERAPY</b>
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Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

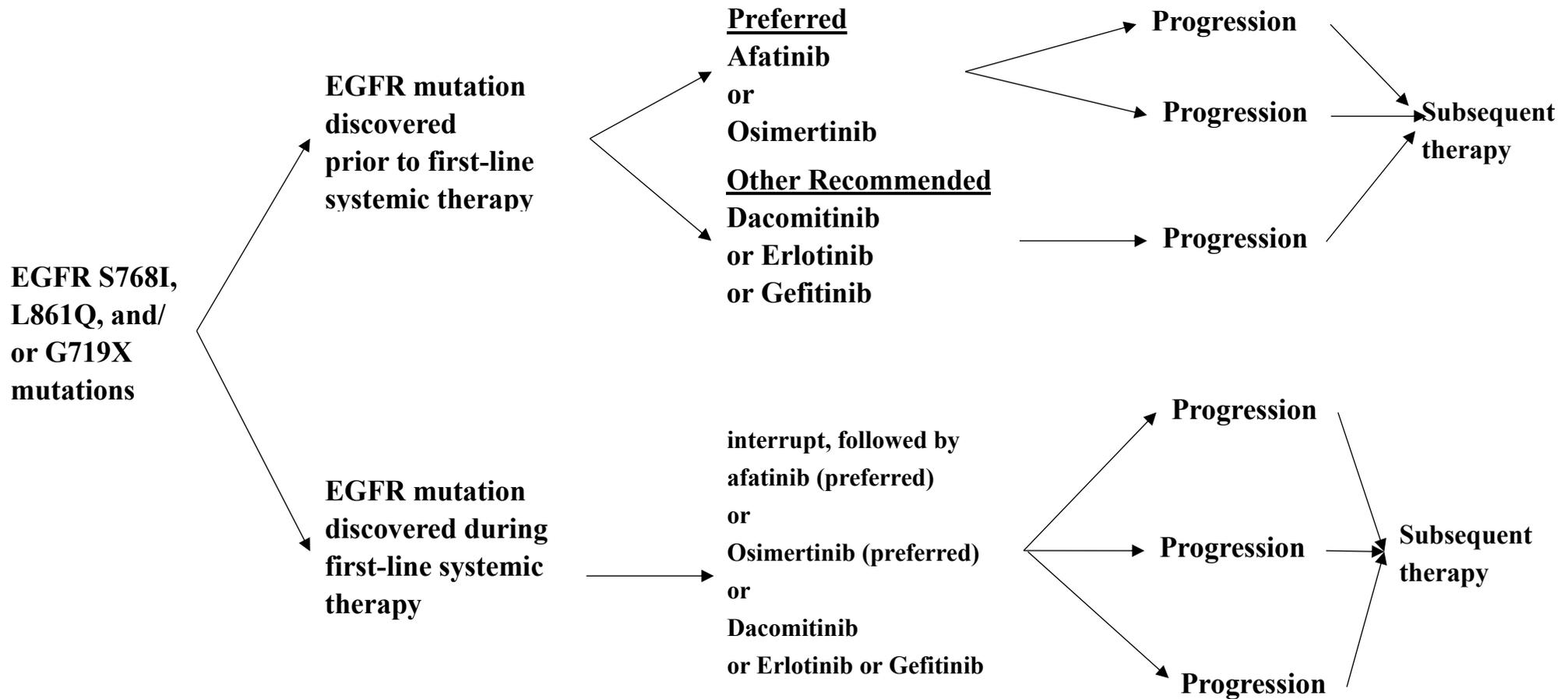
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



<b>EGFR S768I, L861Q, and/or G719X MUTATIONS</b>	<b>FIRST-LINE THERAPY</b>
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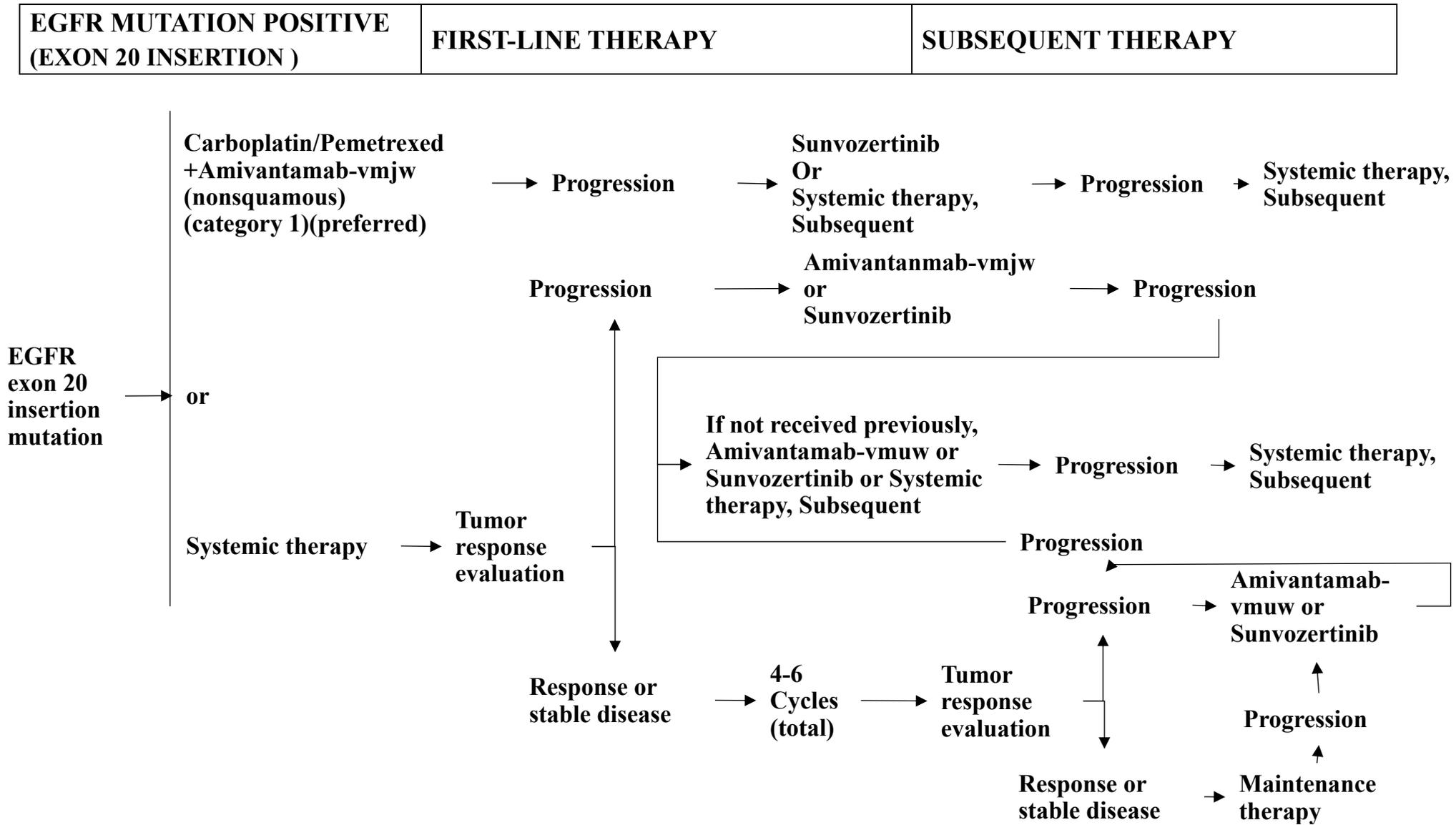


Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

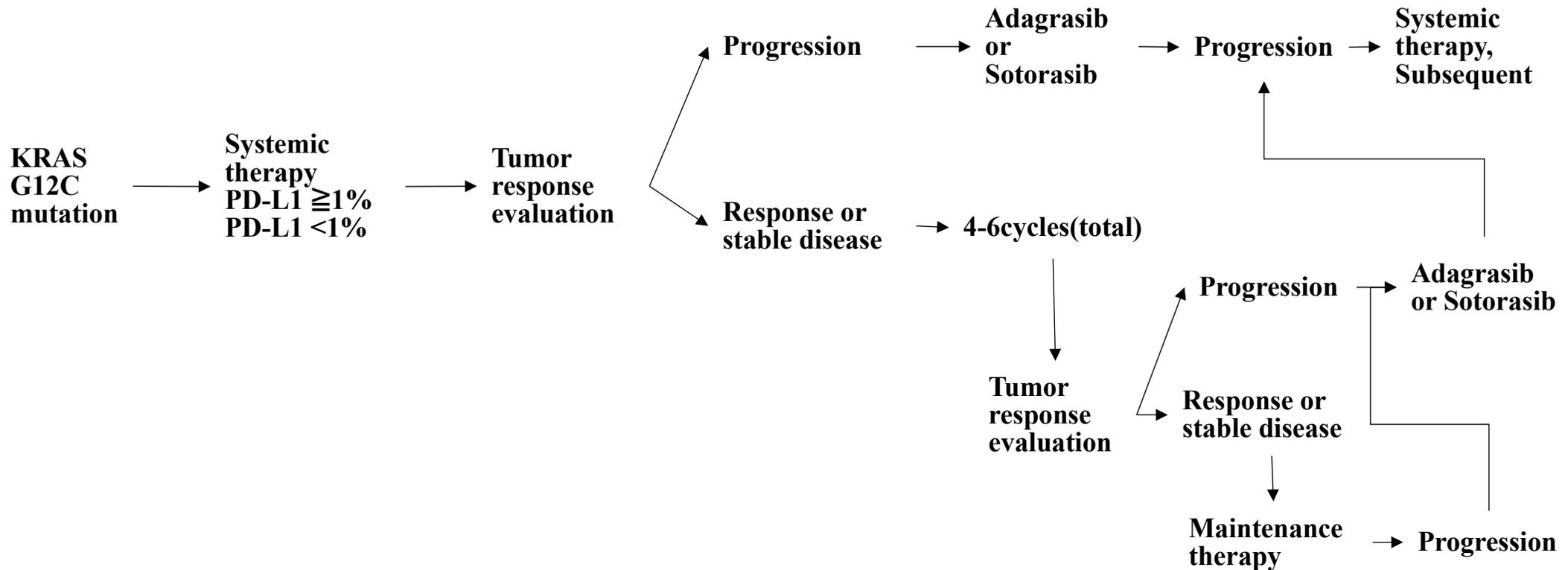
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



<b>KRAS G12C MUTATION POSITIVE FIRST-LINE THERAPY</b>	<b>SUBSEQUENT THERAPY</b>
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Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

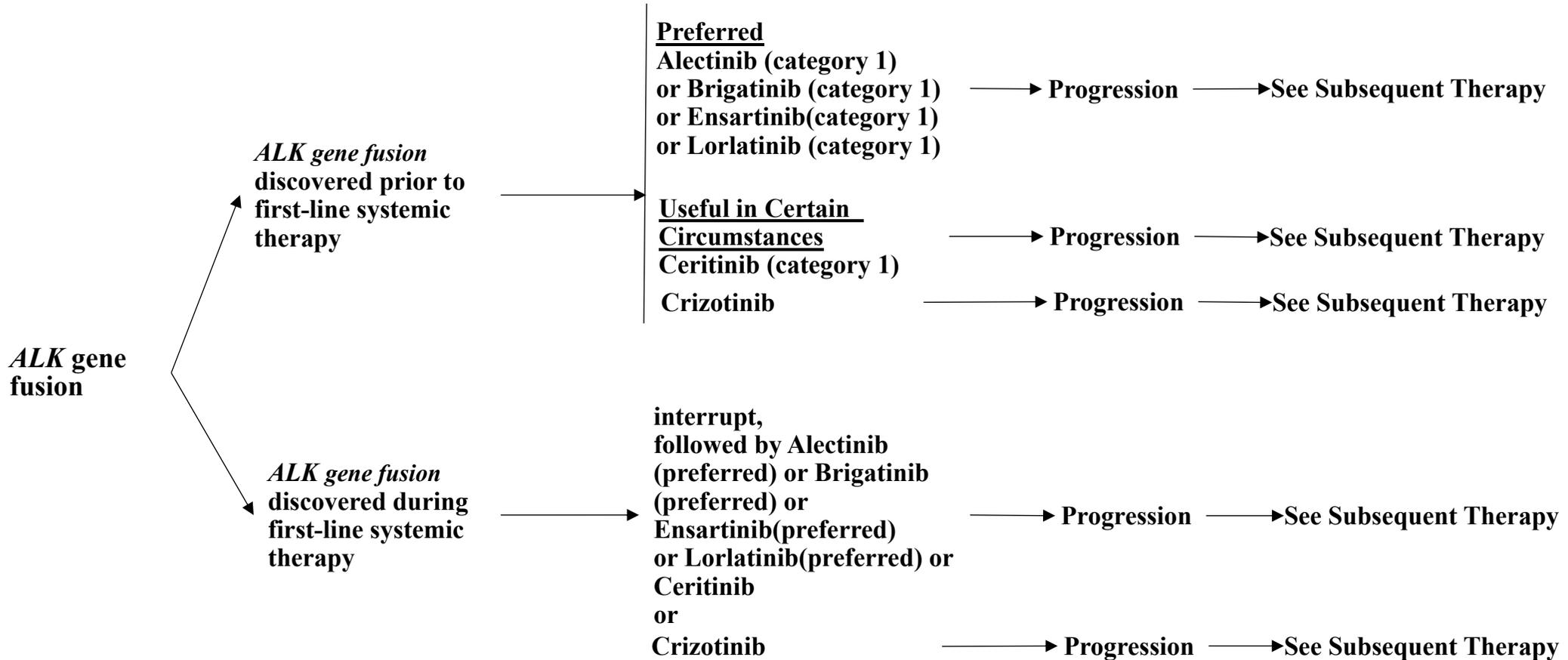
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



<b>ALK GENE FUSION</b>	<b>FIRST-LINE THERAPY</b>
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Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

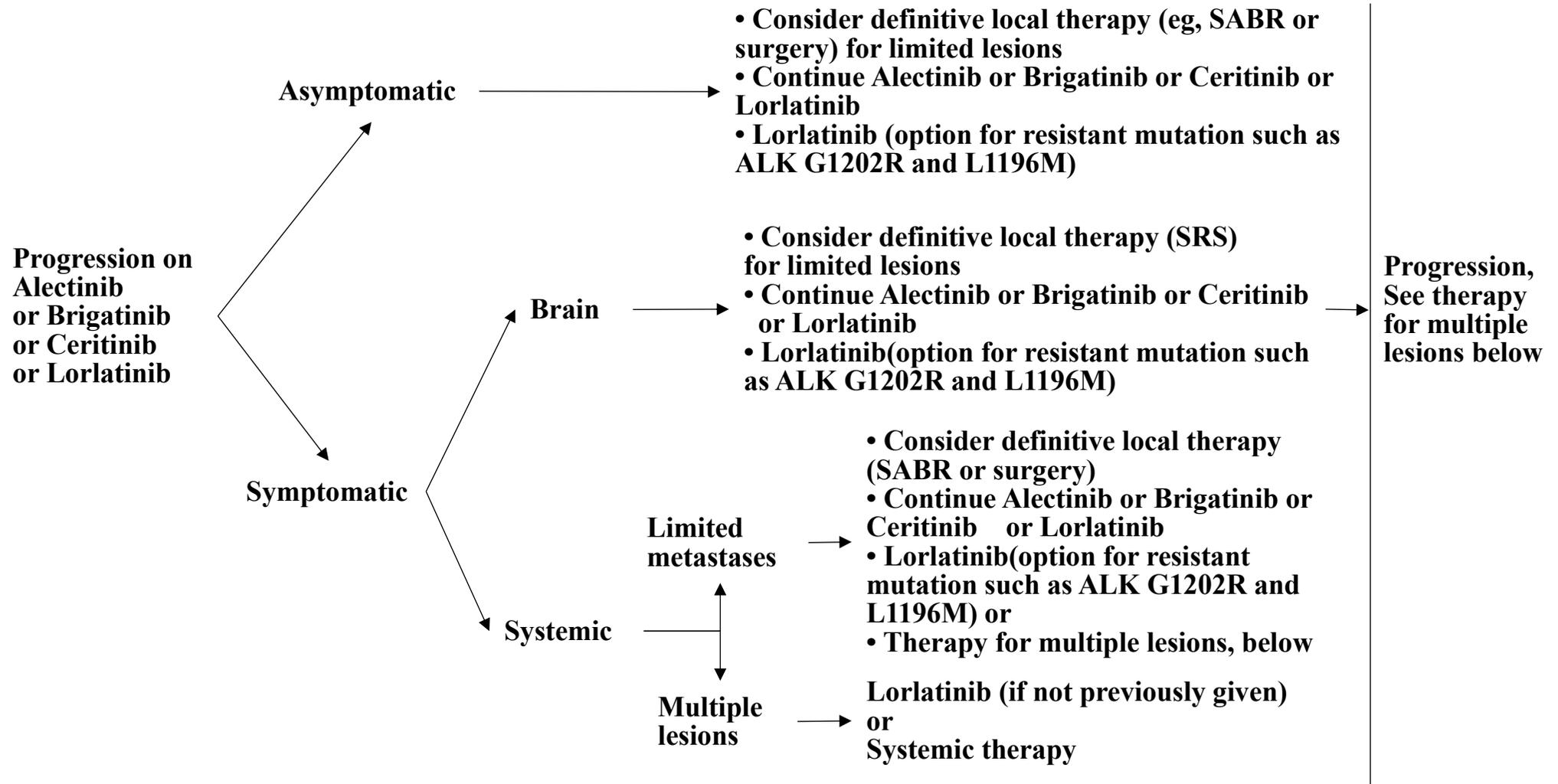
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



<b>ALK GENE FUSION</b>	<b>SUBSEQUENT THERAPY</b>
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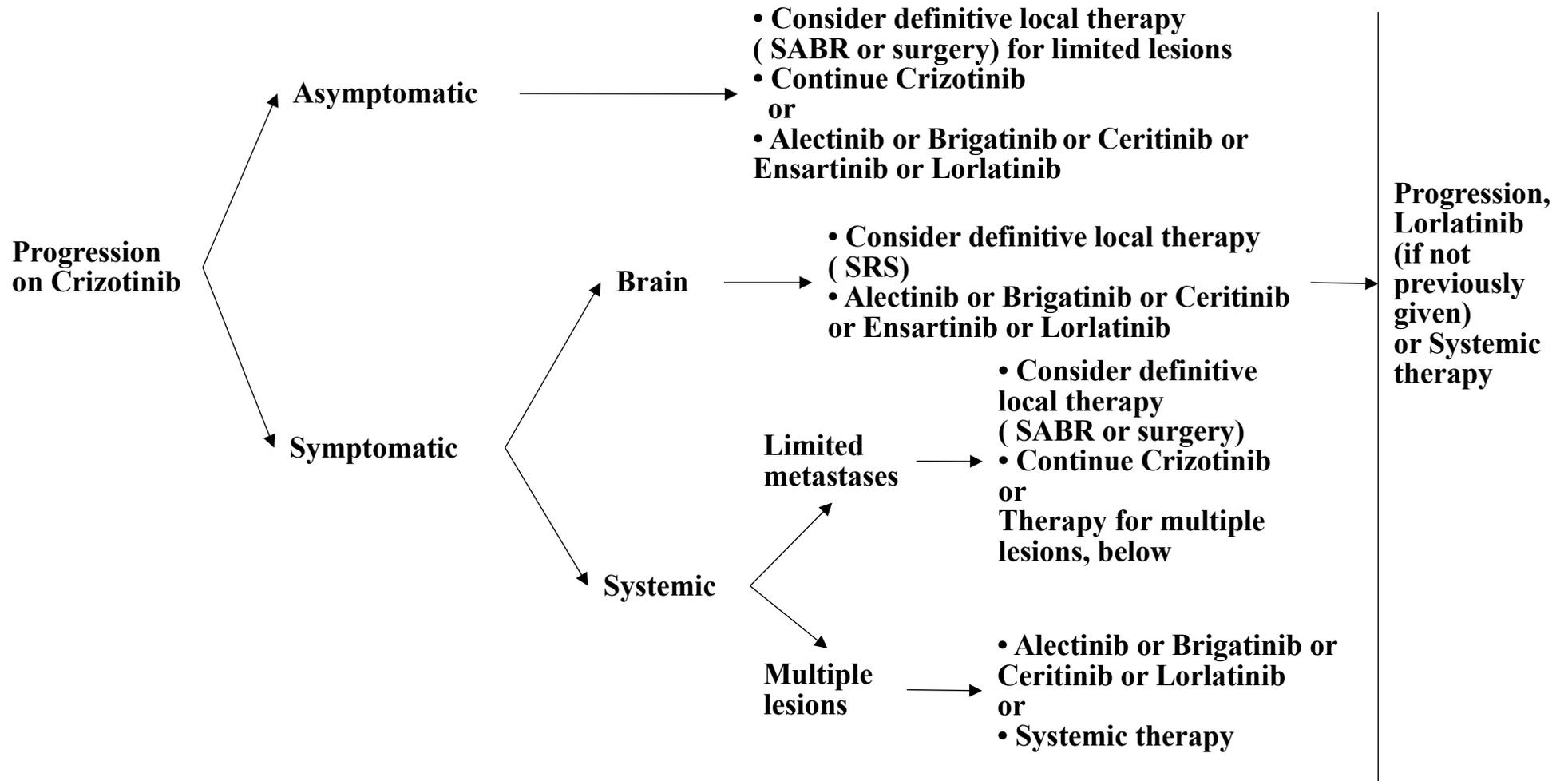
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

<b>ALK GENE FUSION</b>	<b>SUBSEQUENT THERAPY</b>
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Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

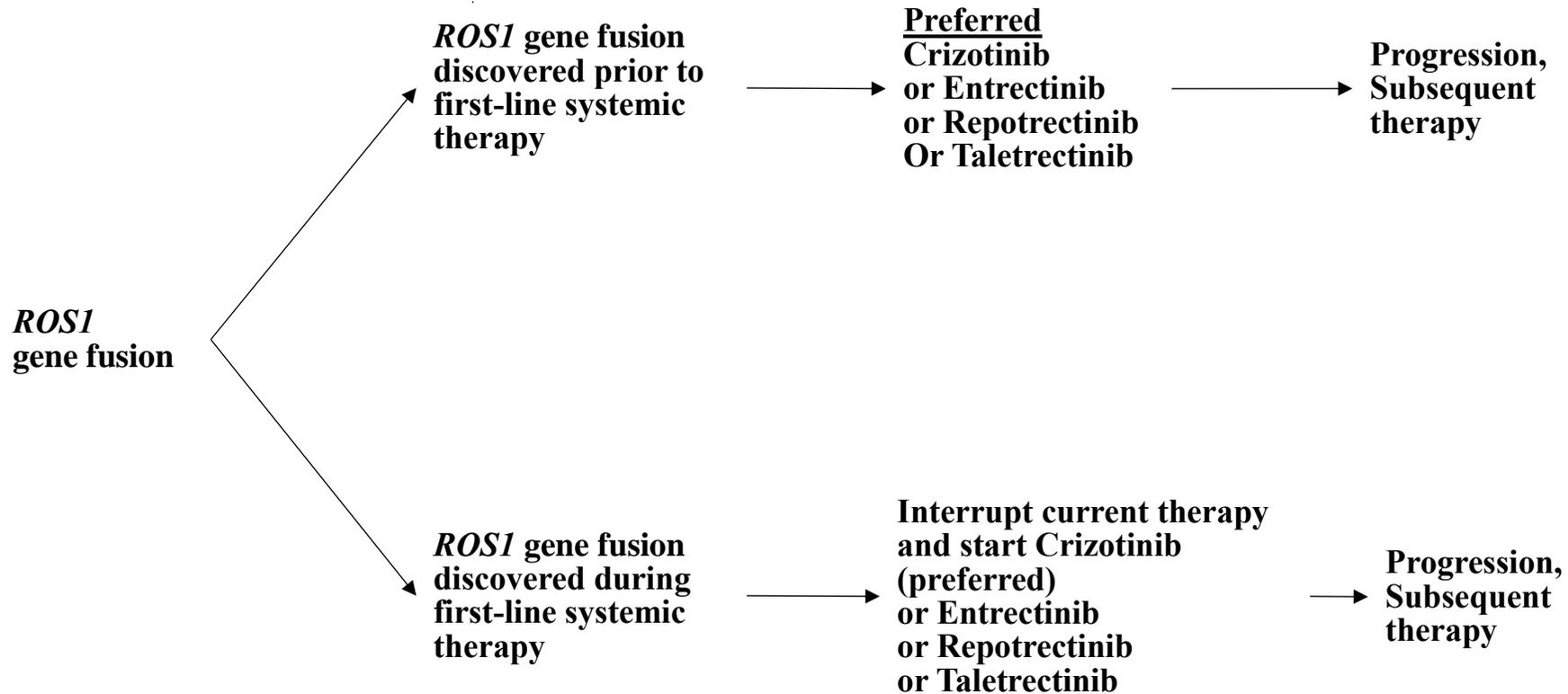
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



ROS1 GENE FUSION	FIRST-LINE THERAPY	SUBSEQUENT THERAPY
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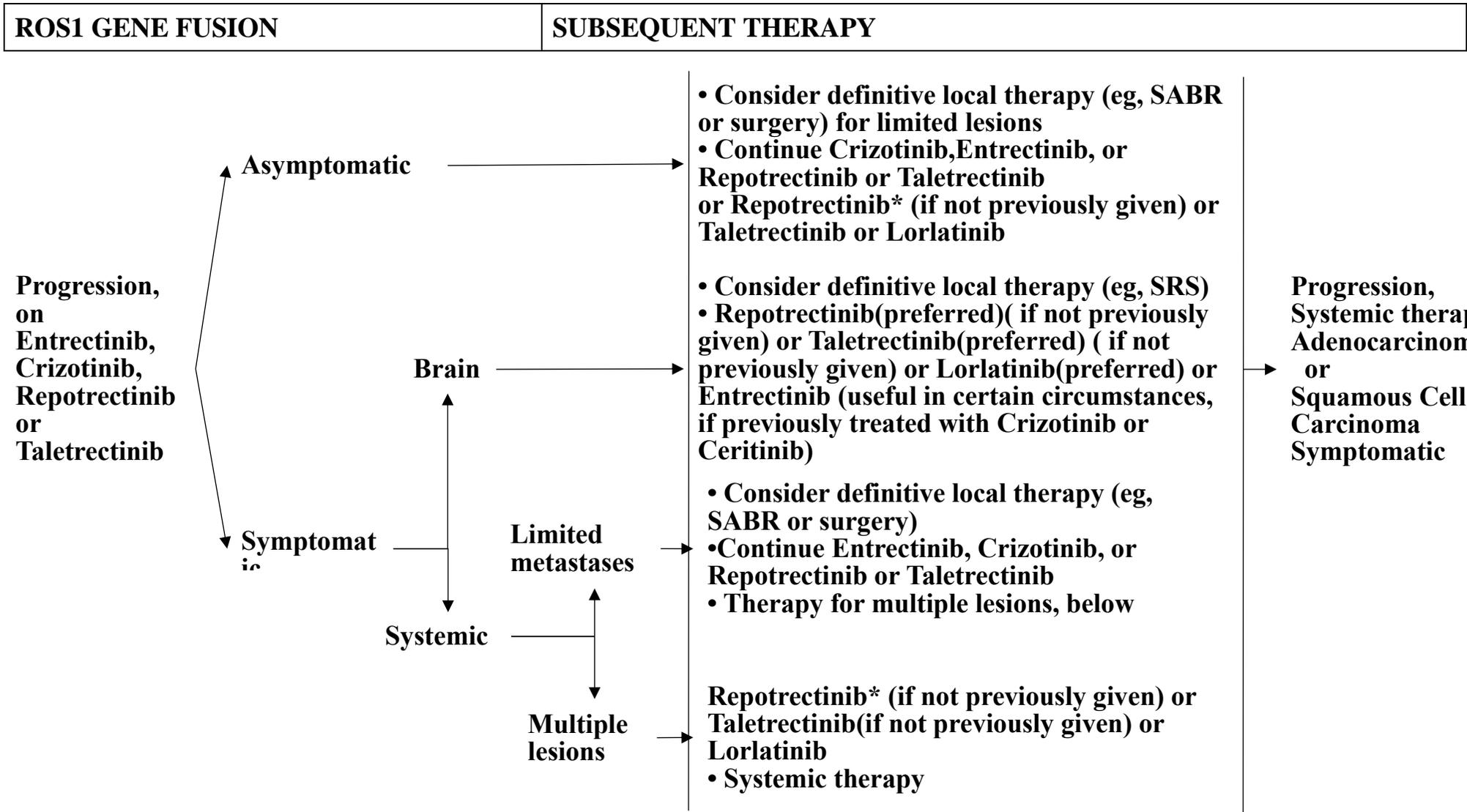


Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



\*此藥物未健保給付.需評估是否加入 Clinical Trials

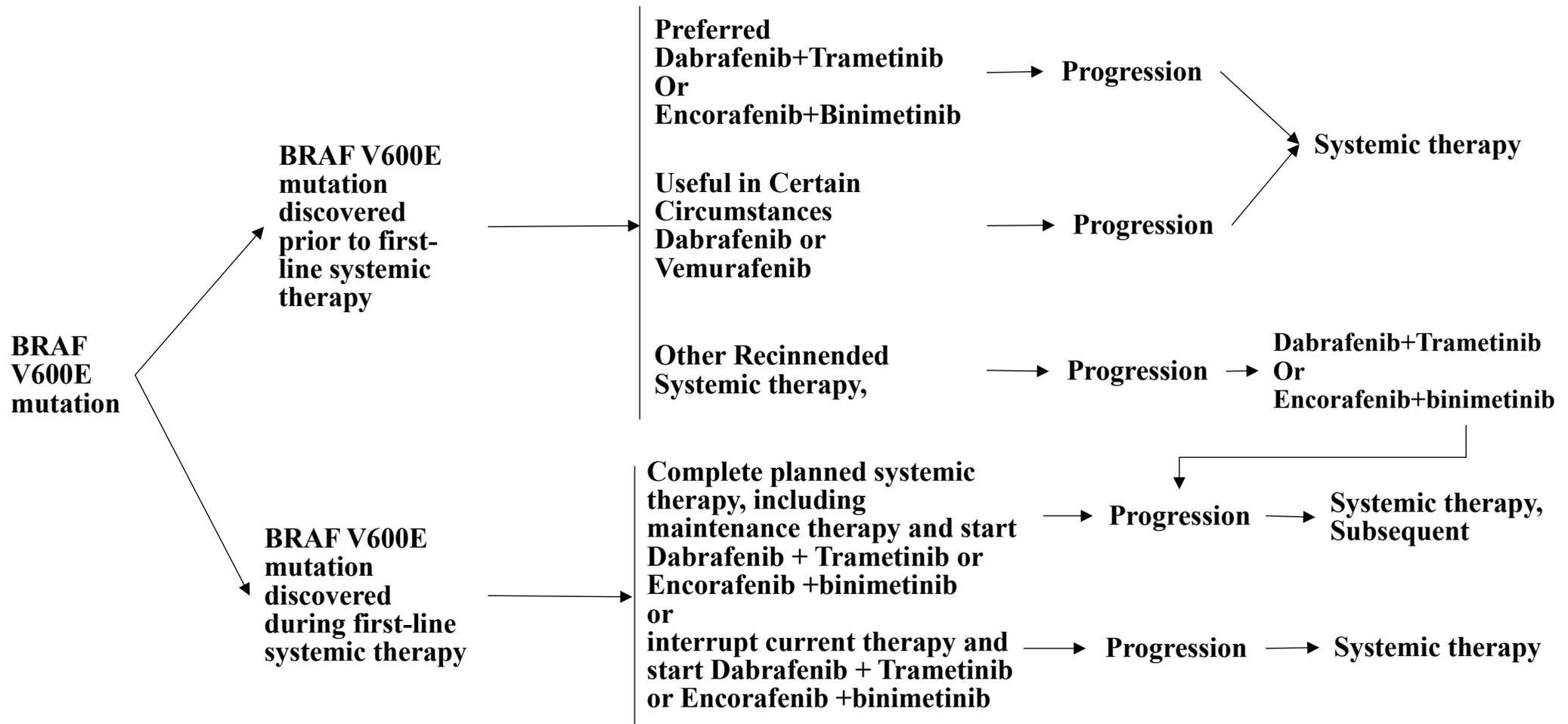
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

BRAF V600E MUTATION	FIRST-LINE THERAPY	SUBSEQUENT THERAPY
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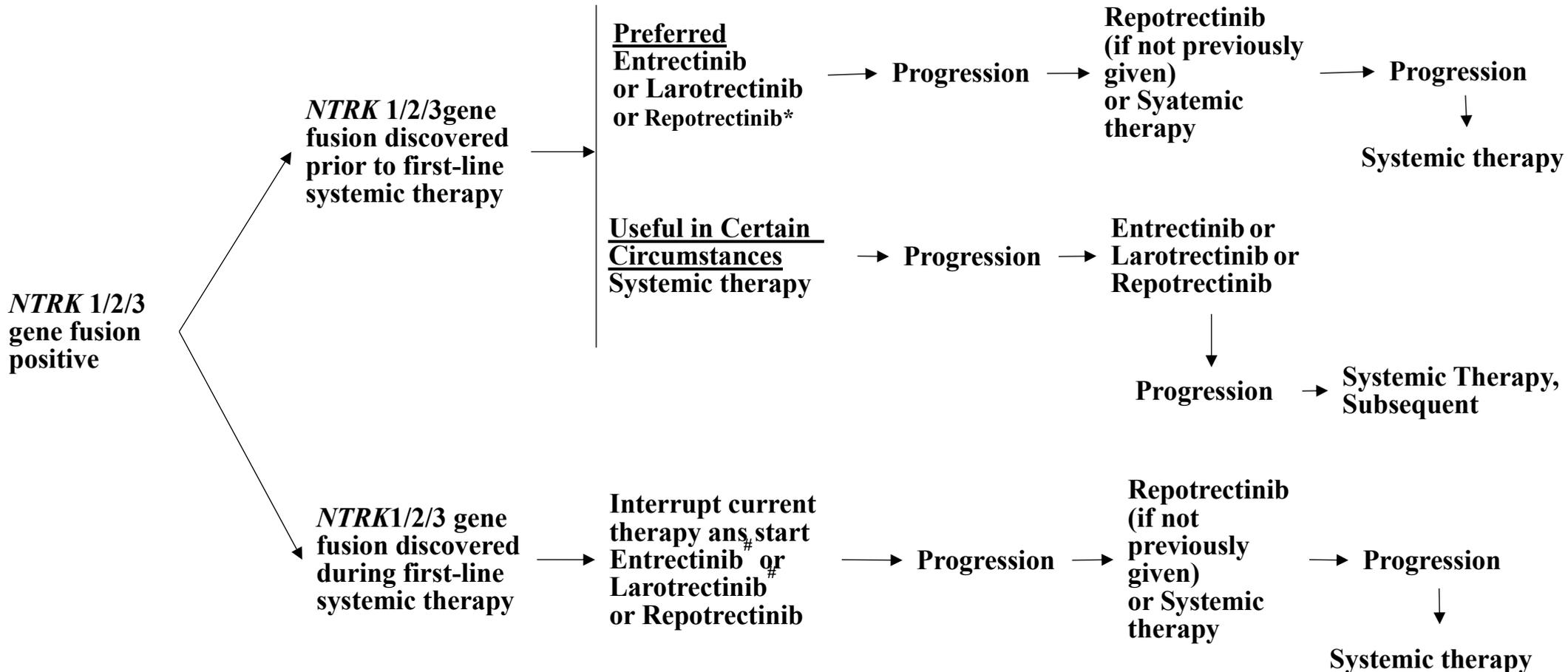
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀、放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

NTRK GENE FUSION	FIRST-LINE THERAPY	SUBSEQUENT THERAPY
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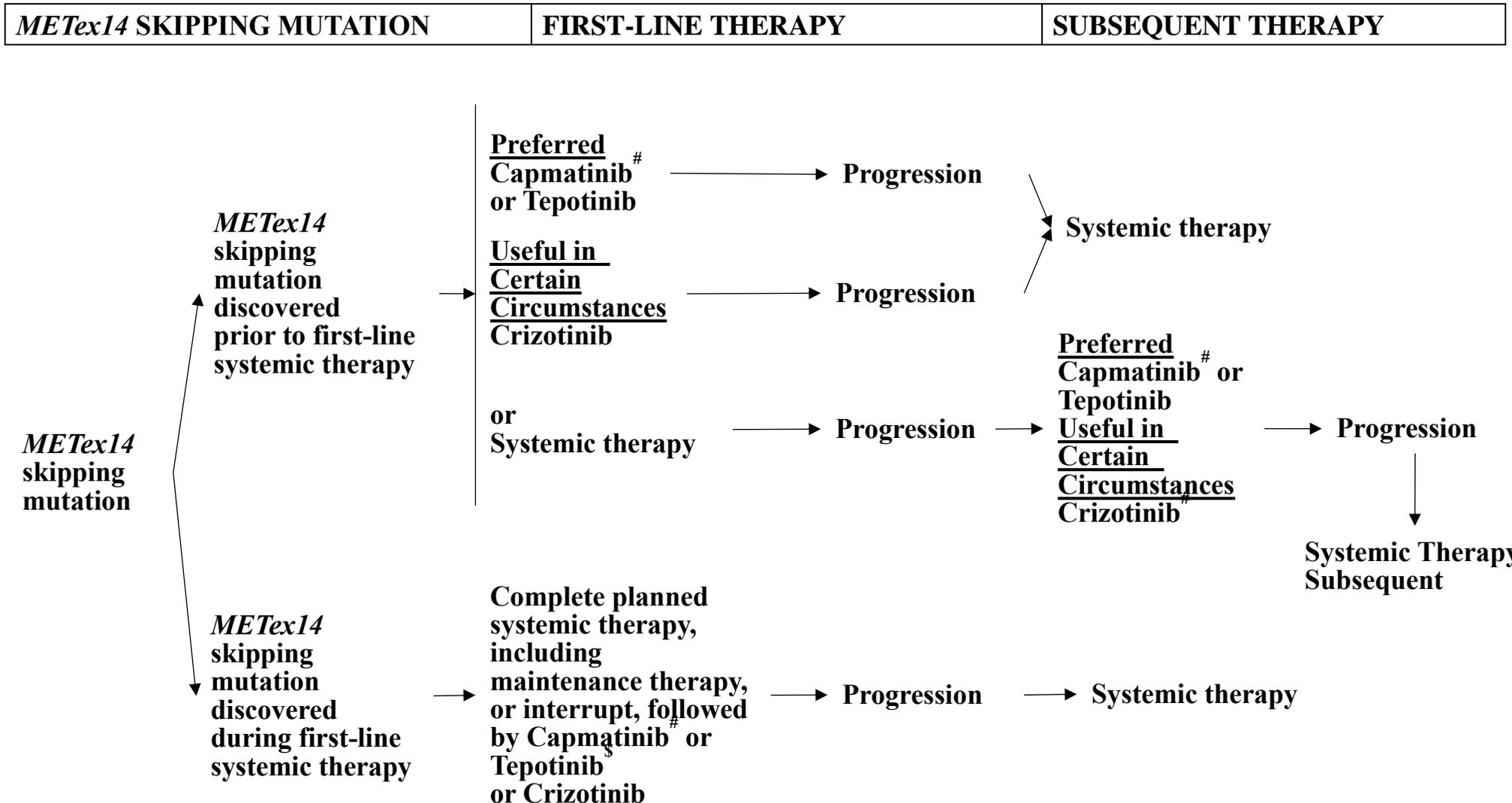
\*此藥物未健保給付.需評估是否加入 Clinical Trials

Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



#本院有藥但健保未給付  
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

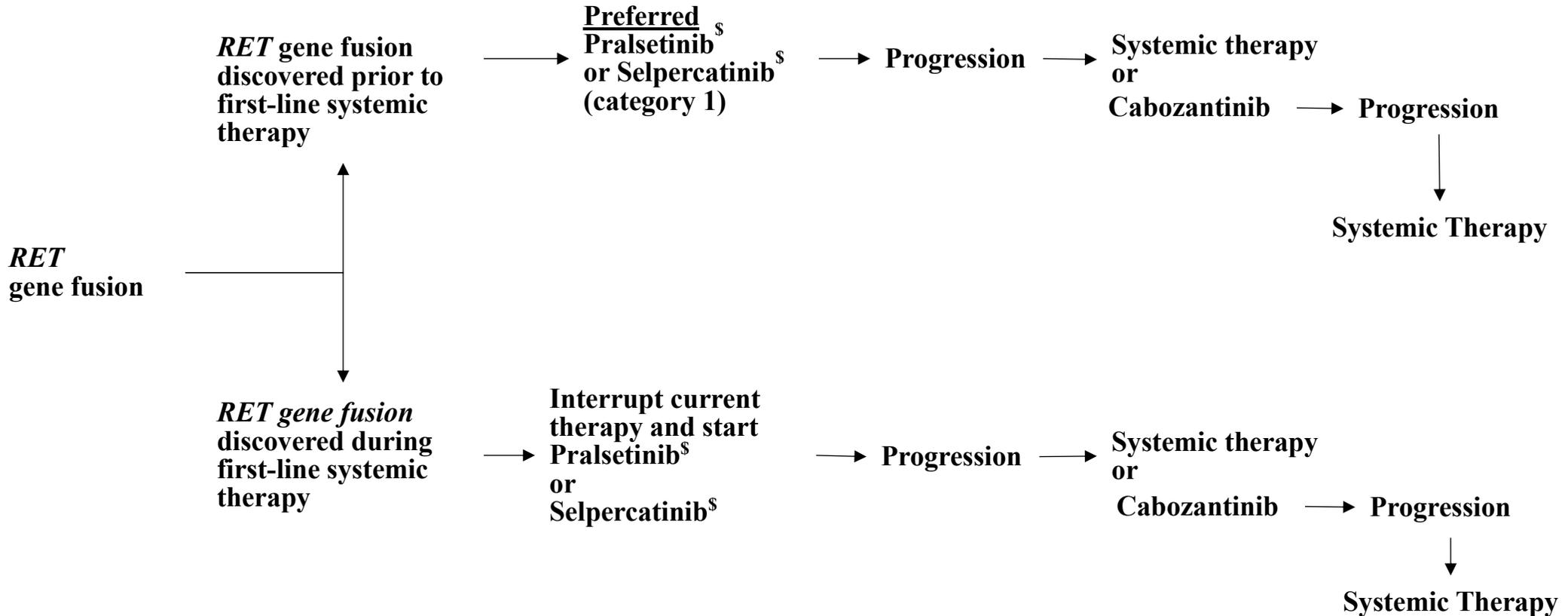
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



RET GENE FUSION	FIRST-LINE THERAPY	SUBSEQUENT THERAPY
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#本院有藥但健保未給付

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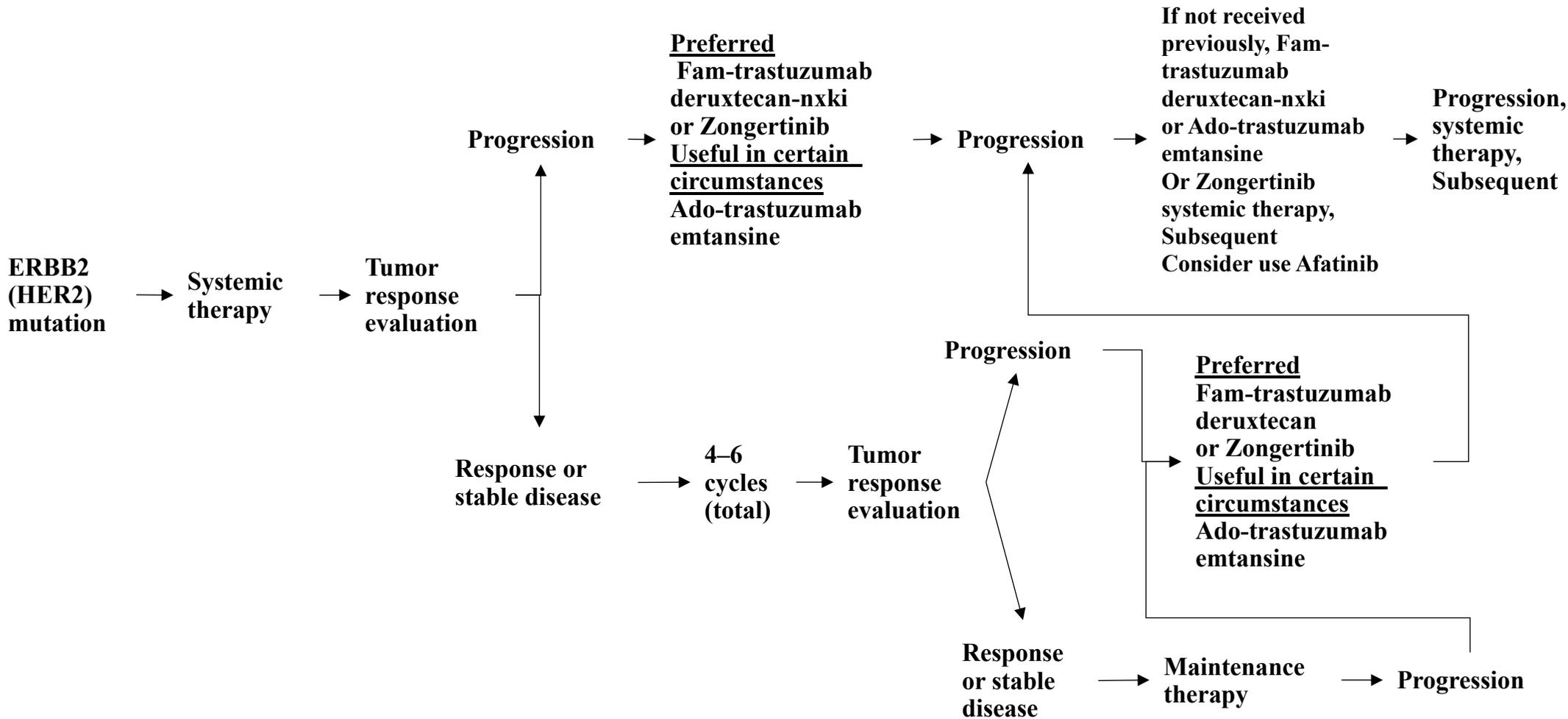
註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



ERBB2 (HER2) MUTATION	FIRST-LINE THERAPY	SUBSEQUENT THERAPY
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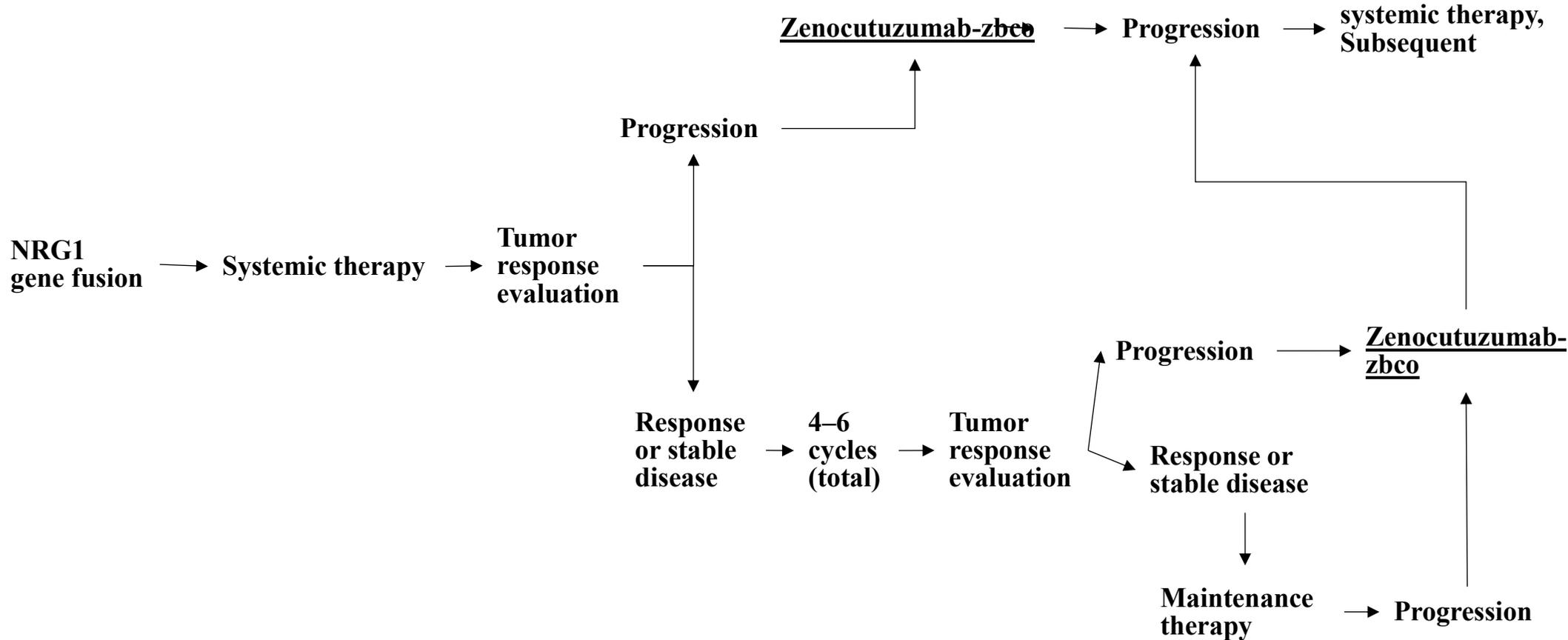
Stage:IV 接受 TKI 治療後可與胸腔外科討論進行局部治療(含開刀.放療)治療

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

<b>NRG1 GENE FUSION</b>	<b>FIRST-LINE THERAPY</b>	<b>SUBSEQUENT THERAPY</b>
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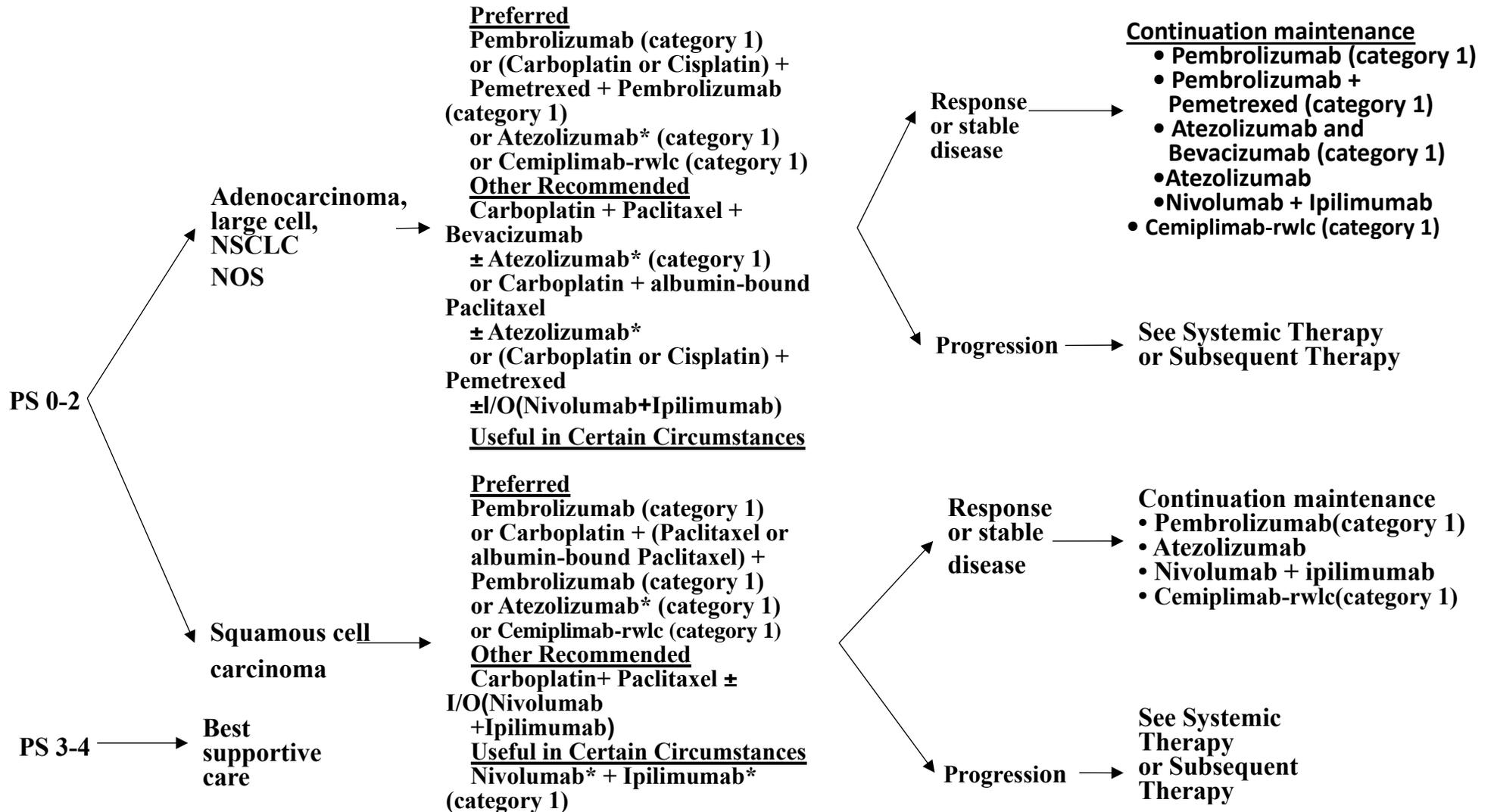


註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

**PD-L1 expression positive (≥50%) and negative for actionable molecular biomarkers**

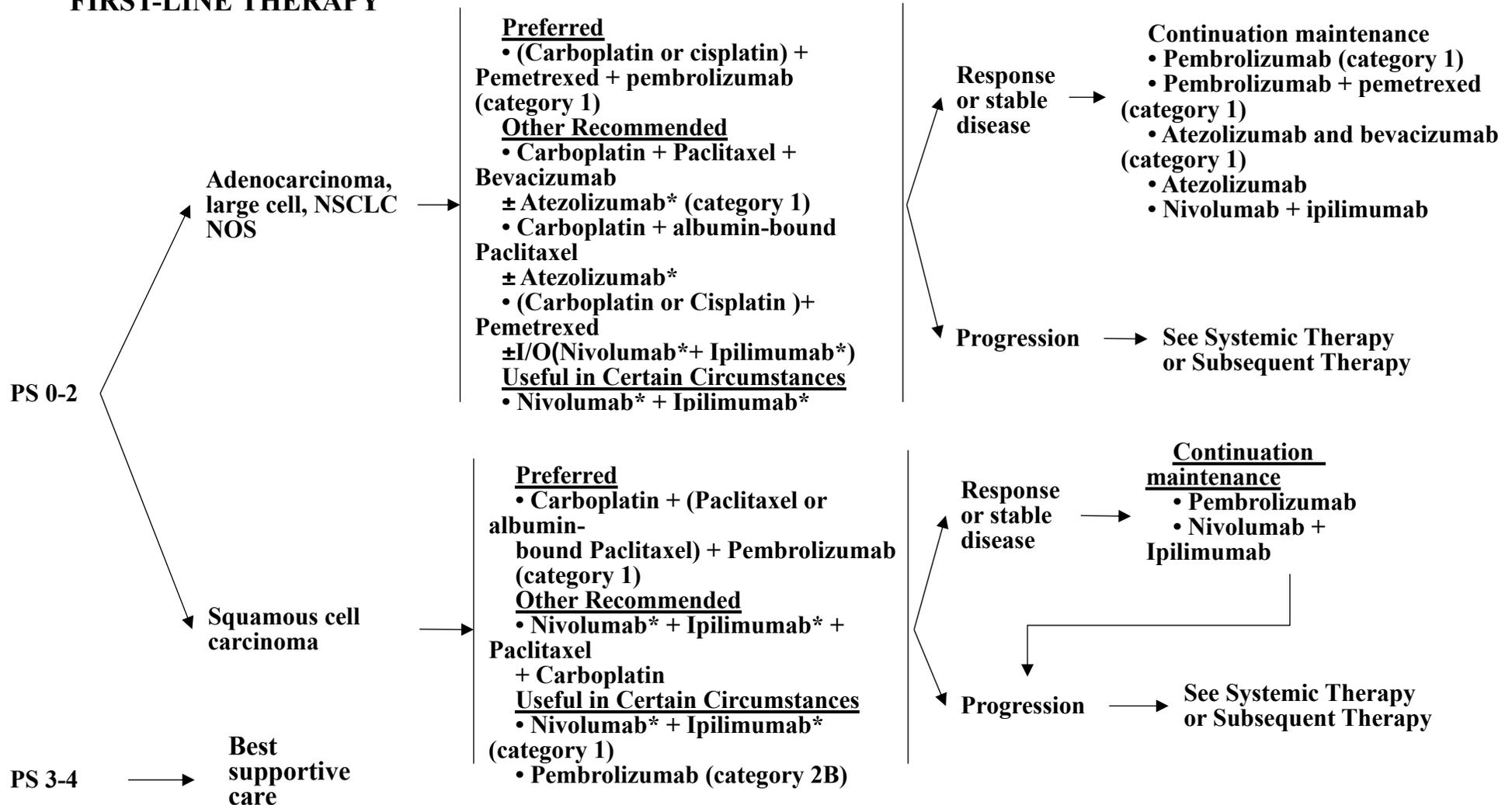


註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

**PD-L1 EXPRESSION POSITIVE(≥1%-49%) ACTIONABLE MOLECULAR MARKERS  
FIRST-LINE THERAPY**



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



## 四、非小細胞肺癌化學治療原則

### ➤ Neoadjuvant Chemotherapy with Immunotherapy

**\*Patients with  $\geq 4$  cm or node-positive tumors should be evaluated for the following treatment options:**

- **Nivolumab and platinum-based doublet chemotherapy with the option of continuing single-agent nivolumab as adjuvant treatment after surgery (for patients with no known EGFR mutations or ALK gene fusions) (category 1) and Other Adjuvant Systemic Therapy**

**Nivolumab 360mg day 1 and Platinum-doublet chemotherapy options include:**

**1. Carboplatin/Paclitaxel(any histology)**

Carboplatin AUC 4.5-6 day 1, Paclitaxel 180 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**2. Cisplatin/Docetaxel (any histology)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Docetaxel 60 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**3. Cisplatin/Pemetrexed (nonsquamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**4. Carboplatin/Pemetrexed (nonsquamous)**

Carboplatin AUC 4.5-6 day 1, Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**5. Cisplatin/Gemcitabine (squamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup> mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

**6. Carboplatin/Gemcitabine (squamous)**

Carboplatin AUC 4.5-6 day 1, Gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

**7. Cisplatin/ Paclitaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Paclitaxel 180 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

- **Pembrolizumab and cisplatin-based doublet chemotherapy** then continued as single-agent pembrolizumab as adjuvant treatment after surgery (category 1) and Other Adjuvant Systemic Therapy

**Pembrolizumab 200mg day 1 and Platinum-doublet chemotherapy options include:**



**1. Cisplatin/Pemetrexed (nonsquamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**2. Cisplatin/Gemcitabine (squamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup> mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

- **Durvalumab and platinum-based doublet chemotherapy** then continued as single-agent Durvalumab as adjuvant treatment after surgery (for patients with no known EGFR mutations or ALK gene fusions) (category 1) and Other Adjuvant Systemic Therapy

**Durvalumab 1500mg day 1 and Platinum-doublet chemotherapy options include:**

**1. Cisplatin/Pemetrexed (nonsquamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**2. Carboplatin/Pemetrexed (nonsquamous)**

Carboplatin AUC 4.5-6 day 1, Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**3. Cisplatin/Gemcitabine (squamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

**4. Carboplatin/Gemcitabine (squamous)**

Carboplatin AUC 4.5-6 day 1, Gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

**5. Carboplatin/Paclitaxel (squamous)**

Carboplatin AUC 4.5-6 day 1, Paclitaxel 180 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

or Carboplatin AUC 4.5-6 day 1, Paclitaxel 90 mg/m<sup>2</sup> day 1 and 15 every 28 days for 4 cycles

or Carboplatin AUC 4.5-6 day 1, Paclitaxel 60 mg/m<sup>2</sup> day 1, 8 and 15 every 28 days for 4 cycles

**6. Cisplatin/Paclitaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1, Paclitaxel 180 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

or Cisplatin 50-75 mg/m<sup>2</sup> day 1, Paclitaxel 90 mg/m<sup>2</sup> day 1 and 15 every 28 days for 4 cycles

or Cisplatin 50-75 mg/m<sup>2</sup> day 1, Paclitaxel 60 mg/m<sup>2</sup> day 1, 8 and 15 every 28 days for 4 cycles



➔ **Neoadjuvant Systemic Therapy**

● **Targeted Therapy Options**

After surgical evaluation, consider Osimertinib ± chemotherapy, with the option of single-agent Osimertinib as adjuvant therapy after surgery, for patients with stage II–IIIA, IIIB (T2–T3, N2b; T4, N2) NSCLC that is positive for EGFR exon 19 deletion or L858R mutation

**Chemotherapy options with osimertinib include:**

**1. Cisplatin/Pemetrexed (nonsquamous)**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

**2. Carboplatin/Pemetrexed (nonsquamous)**

Carboplatin AUC 4.5-6 day 1, pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

● **Chemotherapy Options**

After surgical evaluation, patients with the following disease stages can be evaluated for the neoadjuvant chemotherapy regimens listed below if ineligible for immunotherapy or targeted therapy and are likely to receive adjuvant chemotherapy: Stage IB, IIA (if high-risk features are present) ; Stage IIB, IIIA, IIIB (T2–T3, N2b; T4, N2)

✧ **Preferred (nonsquamous)**

**Cisplatin/Pemetrexed**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

✧ **Preferred (squamous)**

**Cisplatin/Gemcitabine**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8 every 21 days for 4 cycles

**Cisplatin/Docetaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Docetaxel 60 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

✧ **Other Recommended**

**Cisplatin/Vinorelbine**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Vinorelbine 60-80 mg/m<sup>2</sup> po days 1, 8, 15 and 22, every 28 days for 4 cycles



✧ **Useful in Certain Circumstances**

Chemotherapy regimens for patients who are not candidates for cisplatin-based therapy

**Cisplatin /Paclitaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Paclitaxel 60 mg/m<sup>2</sup> day 1, 8 and 15 every 28 days for 4 cycles  
or

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Paclitaxel 90 mg/m<sup>2</sup> day 1 and 15 every 28 days for 4 cycles  
or

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Paclitaxel 180 mg/m<sup>2</sup> day 1, every 21 days for 4 cycles

**Carboplatin/Paclitaxel**

Carboplatin AUC 4.5-6 day 1, Paclitaxel 60 mg/m<sup>2</sup> day 1, 8 and 15 every 28 days for 4 cycles  
or

Carboplatin AUC 4.5-6 day 1, Paclitaxel 90 mg/m<sup>2</sup> day 1, 15 every 28 days for 4 cycles  
or

Carboplatin AUC 4.5-6 day 1, Paclitaxel 180 mg/m<sup>2</sup> day 1 every 28 days for 4 cycles

**Carboplatin/Gemcitabine(squamous)**

Carboplatin AUC 4.5-6 day 1, gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8, every 21 days for 4 cycles

**Carboplatin/Pemetrexed(nonsquamous)**

Carboplatin AUC 4.5-6 day 1, pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

All chemotherapy-only regimens listed above can be used for sequential chemotherapy/RT.



➤ **Adjuvant Chemotherapy**

For stage IB and IIA (T2b, N0; T1, N1), adjuvant chemotherapy is recommended for high-risk features.a

For stage IIB (T1, N2a; T2, N1; T3, N0), stage IIIA (T1, N2b; T2–T3, N2a; T3, N1; T4, N0–1),stage IIIB (T2–T3, N2b; T4, N2), adjuvant chemotherapy is recommended.

Adjuvant chemotherapy can be considered regardless of biomarker testing results.

If patient received chemotherapy as part of neoadjuvant therapy, then adjuvant chemotherapy should not be given.

✧ **Preferred (nonsquamous)**

**Cisplatin+Pemetrexed**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

✧ **Preferred (squamous)**

**Cisplatin +Gemcitabine**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup> days 1 and 8, every 21 days for 4 cycles

**Cisplatin+Docetaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Docetaxel 25-35 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Docetaxel 60 mg/m<sup>2</sup> day 1 every 21 days for 4 cycles

✧ **Other Recommended**

**Cisplatin+Vinorelbine**

Cisplatin 50-75 mg/m<sup>2</sup> days 1 and 8(adjusted by Ccr); Vinorelbine 60-80 mg/m<sup>2</sup> day 1, 8, (15) PO, every 28 days for 4 cycles

**Carboplatin +Vinorelbine**

Carboplatin AUC 4.5-6 days 1; Vinorelbine 60-80 mg/m<sup>2</sup> Day 1, 8, (15) PO, every 28 days for 4 cycles

**Cisplatin +Etoposide**

Cisplatin 50-75 mg/m<sup>2</sup> day 1(adjusted by Ccr), Etoposide 80-100 mg/m<sup>2</sup> day 1-3 every 21 days for 4 cycles



◇ **Useful in Certain Circumstances**

Chemotherapy regimens for patients who are not candidates for cisplatin-based therapy

**Caboplatin+Paclitaxel**

Carboplatin AUC 4.5-6 day 1 (if Ccr <60ml/min or cisplatin not suitable), Paclitaxel 180 mg/m<sup>2</sup> Day 1, every 21 Days for 4 cycles

Carboplatin AUC 4.5-6 Day 1 (if Ccr <60ml/min or cisplatin not suitable), Paclitaxel 90 mg/m<sup>2</sup> Day 1,15 every 21 Days for 4 cycles

Carboplatin AUC 4.5-6 Day 1 (if Ccr <60ml/min or cisplatin not suitable), Paclitaxel 60 mg/m<sup>2</sup> Day 1,8,15 every 21 Days for 4 cycles

**Carboplatin+Gemcitabine**

Carboplatin AUC 4.5-6 Day 1 (if Ccr <60ml/min or cisplatin not suitable), Gemcitabine 1000 mg/m<sup>2</sup> Days 1 and 8 every 21 Days for 4 cycles (squamous histology)

**Carboplatin+ Pemetrexed (nonsquamous histology)**

Carboplatin AUC 4.5-6 Day 1 (if Ccr <60ml/min or cisplatin not suitable), Pemetrexed 500 mg/m<sup>2</sup> Day 1 every 21 Days for 4 cycles

**Cisplatin /Paclitaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 60 mg/m<sup>2</sup> day 1, 8 and 15 every 28 days for 4 cycles  
or

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 90 mg/m<sup>2</sup> day 1 and 15 every 28 days for 4 cycles  
or

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 180 mg/m<sup>2</sup> day 1, every 21 days for 4 cycles

**Ufur**

Ufur 300mg~600mg PO only for Adenocarcinoma (T2 且腫瘤≥3cm)。

\*\*輔助化學治療藥物給予時，應依各藥物特性，配合病人狀況，例如：BSA、WBC 及特定之血液檢查值等，調整適當藥物劑量。

All chemotherapy-only regimens listed above can be used for sequential chemotherapy/RT.

### **Other Adjuvant Systemic Therapy**

Targeted Therapy Options for Patients with Resected NSCLC

#### **Alectinib**

for patients with  $\geq 4$  cm or node-positive NSCLC stages IB–IIIA, IIIB [T2–T3, N2b; T4, N2], and positive for ALK gene fusions) (category 1).

#### **Osimertinib**

for patients with NSCLC positive for EGFR exon 19 deletion or L858R mutation).

For patients with stage IB–IIIA, IIIB (T2–T3, N2b; T4, N2) NSCLC who received previous adjuvant chemotherapy or are ineligible to receive platinum-based chemotherapy (category 1)

For patients who received previous neoadjuvant Osimertinib  $\pm$  chemotherapy

### **Immune Checkpoint Inhibitor Options for Patients with Resected NSCLC Tumors**

#### **Atezolizumab**

for patients with  $\geq 4$  cm or node-positive NSCLC stages IB–IIIA, IIIB [T2–T3, N2b; T4, N2] who received previous adjuvant chemotherapy with NSCLC PD-L1  $\geq 1\%$  and no known EGFR mutations or ALK gene fusions(category 1).

#### **Pembrolizumab**

For up to a year for patients with  $\geq 4$  cm or node-positive NSCLC stages IB–IIIA, IIIB (T2–T3, N2b; T4, N2) who received previous adjuvant chemotherapy and no known EGFR mutations or ALK gene fusions (category 1).<sup>18</sup> The benefit for patients with PD-L1  $< 1\%$  is unclear.

For up to 39 weeks for patients who received previous neoadjuvant chemotherapy + Pembrolizumab (category 1).<sup>3</sup>

#### **Durvalumab**

for patients who received previous neoadjuvant chemotherapy + Durvalumab and no known EGFR mutations or ALK gene fusions(category 1).

#### **Nivolumab**

for patients who received previous neoadjuvant chemotherapy + Nivolumab and no known EGFR mutations or ALK gene fusions(category 1).



➤ **Concurrent Chemoradiation Regimens**

✧ **Preferred**

**Carboplatin+ Pemetrexed**

Carboplatin AUC 4.5-6 on Day 1 (if Ccr <60ml/min or cisplatin not suitable ), Pemetrexed 500 mg/m<sup>2</sup> on Day 1 every 21 Days for 4 cycles; concurrent thoracic RT

**Cisplatin+ Pemetrexed**

Cisplatin 50-75 mg/m<sup>2</sup> on Day 1 (adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup> on Day 1 every 21 Days for 3 cycles; concurrent thoracic RT± additional 4 cycles of Pemetrexed 500 mg/m<sup>2</sup>

**Paclitaxel+ Carboplatin**

Paclitaxel 45-50 mg/m<sup>2</sup> weekly; carboplatin AUC 2 (if Ccr <60ml/min or Cisplatin not suitable ) weekly, concurrent thoracic RT ± additional 2 cycles every 21 Days of Paclitaxel 180 mg/m<sup>2</sup> and Carboplatin AUC 6 (if Ccr <60ml/min or Cisplatin not suitable ) monly

**Cisplatin+Etoposide**

Cisplatin 50 mg/m<sup>2</sup> on Days 1, 8, 29, and 36 (adjusted by Ccr); Etoposide 50 mg/m<sup>2</sup> Days 1–5 and 29–33; concurrent thoracic RT

➤ **Consolidation Therapy for Patients with Unresectable Stage II/III NSCLC, PS 0–1, and No Disease Progression After Definitive Concurrent Chemoradiation**

**Durvalumab**

Durvalumab 10 mg/kg IV every 2 weeks or 1500 mg every 4 weeks for up to 12 months (patients with a body weight of ≥30 kg) (category 1 for stage III; category 2A for stage II) (except tumors that are positive for EGFR exon 19 deletion or exon 21 L858R mutations)

**Osimertinib**

Osimertinib 80 mg once daily until disease progression (category 1 for stage III; category 2A for stage II) if EGFR exon 19 deletion or L858R



➤ **Molecular and Biomarker-directed therapy for advanced or metastatic disease**

<b><u>EGFR Exon 19 Deletion or Exon 21 L858R</u></b>	<b><u>EGFR S768I, L861Q, and/or G719X Mutations</u></b>	<b><u>EGFR Exon 20 Insertion Mutation</u></b>	<b><u>KRAS G12C Mutation</u></b>
<p>● <b>First-line therapy</b>                      Afatinib                      Erlotinib                      Dacomitinib                      Gefitinib                      Osimertinib                      (Carboplatin or Cisplatin)/                      Osimertinib/Pemetrexed                      (nonsquamous)                      Erlotinib + Ramucirumab                      Erlotinib + Bevacizumab                      (nonsquamous)                      Lazertinib + Amivantamab-                      vmjw                      Lazertinib</p> <p>● <b>Subsequent therapy</b>                      Osimertinib                      Carboplatin/Pemetrexed                      + Amivantamab-vmjw                      (nonsquamous)                      Datopotamab deruxtecan-dlnk                      (nonsquamous)                      Lazertinib + Amivantamab-                      vmjw</p>	<p>● <b>First-line therapy</b>                      Afatinib                      Erlotinib                      Dacomitinib                      Gefitinib                      Osimertinib</p> <p>● <b>Subsequent therapy</b>                      Osimertinib                      Datopotamab deruxtecan-dlnk                      (nonsquamous)</p>	<p>● <b>First-line therapy</b>                      Carboplatin/Pemetrexed                      + Amivantamab-vmjw                      (nonsquamous)</p> <p>● <b>Subsequent therapy</b>                      Amivantamab-vmjw                      Sunvozertinib                      Datopotamab deruxtecan-dlnk                      (nonsquamous)</p>	<p>● <b>Subsequent therapy</b>                      Sotorasib                      Adagrasib</p>



➤ **Molecular and Biomarker-directed therapy for advanced or metastatic disease**

<p><b><u>ALK Gene Fusion</u></b>  <b>● First-line therapy</b>  Alectinib  Brigatinib  Ceritinib  Crizotinib  Ensartinib  Lorlatinib  <b>● Subsequent therapy</b>  Alectinib  Brigatinib  Ceritinib  Ensartinib  Lorlatinib</p>	<p><b><u>ROS1 Gene Fusion</u></b>  <b>● First-line therapy</b>  Crizotinib  Entrectinib  Repotrectinib  Taletrectinib  <b>● Subsequent therapy</b>  Lorlatinib  Entrectinib  Repotrectinib  Taletrectini</p>	<p><b><u>BRAF V600E Mutation</u></b>  <b>● First-line therapy</b>  Dabrafenib/Trametinib  Binimetinib/Encorafenib  Dabrafenib  Vemurafenib  <b>● Subsequent therapy</b>  Dabrafenib/Trametinib  Binimetinib/Encorafenib</p>	<p><b><u>NTRK1/2/3 Gene Fusion</u></b>  <b>● First-line/Subsequent therapy</b>  Larotrectinib  Entrectinib  Repotrectinib</p>
<p><b><u>MET Exon 14 Skipping Mutation</u></b>  <b>● First-line therapy/ Subsequent therapy</b>  Capmatinib  Crizotinib  Tepotinib</p>	<p><b><u>RET Gene Fusion</u></b>  <b>● First-line therapy</b>  Selpercatinib  Pralsetinib  <b>● Subsequent therapy</b>  Cabozantinib</p>	<p><b><u>ERBB2 (HER2) Mutation</u></b>  <b>● Subsequent therapy</b>  Fam-trastuzumab deruxtecan-nxki  Ado-trastuzumab emtansine  Zongertinib</p>	<p><b><u>NRG1 Gene Fusion</u></b>  <b>● Subsequent therapy</b>  Zenocutuzumab-zbco</p>
<p><b><u>HER2-positive IHC 3+</u></b>  <b>● Subsequent therapy</b>  Fam-trastuzumab deruxtecan-nxki</p>	<p><b><u>HGFR (MET) (≥50% IHC 3+ and EGFR wild-type)</u></b>  <b>● Subsequent therapy</b>  Telisotuzumab vedotin-tllv (nonsquamous)</p>		

➤ **Advanced or Metastatic disease**

**Principles of biomarker-directed therapy for advanced or metastatic disease**

◆ **PD-L1  $\geq$ 50% FIRST-LINE THERAPY (PS 0–2)**

Preferred

**A. Pembrolizumab followed by maintenance Pembrolizumab(category 1)**

Pembrolizumab 200 mg, day 1, every 3 weeks followed by maintenance Pembrolizumab

**B. (Carboplatin or Cisplatin) + Pemetrexed + Pembrolizumab followed by maintenance Pemetrexed + Pembrolizumab, then Pemetrexed (category 1)**

(Carboplatin AUC 4.5-6 , day 1 or Cisplatin 60-75 mg/m<sup>2</sup> , day 1) + Pemetrexed 500 mg/m<sup>2</sup> , day 1+ Pembrolizumab 200 mg, day 1, every 3 weeks followed by maintenance Pemetrexed + Pembrolizumab, then Pemetrexed

**C. Carboplatin + (Paclitaxel or Albumin-bound Paclitaxel) +Pembrolizumab followed by maintenance Pembrolizumab (category 1) (for Squamous Cell Carcinoma)**

Carboplatin AUC 4.5-6 , day 1 + (Paclitaxel 180 mg/m<sup>2</sup> , day 1or Albumin-bound Paclitaxel 100 mg/m<sup>2</sup>) , day 1 + Pembrolizumab 200mg , day 1, every 3 weeks

**D. Atezolizumab 1200 mg followed by maintenance Atezolizumab (category 1)**

Atezolizumab 1200 mg Day 1, every 3 weeks

Other Recommended

**A. Carboplatin + Paclitaxel + Bevacizumab + Atezolizumab followed by maintenance Bevacizumab ± Atezolizumab (category 1) (for Adenocarcinoma, Large Cell, NSCLC NOS)**

Carboplatin AUC 4.5-6, day 1 + Paclitaxel 180 mg/m<sup>2</sup> , day 1+ Bevacizumab 7.5 mg/kg , day 1+ Atezolizumab 1200mg , day 1, every 3 weeks

**B. Carboplatin + Albumin-bound Paclitaxel + Atezolizumab followed by maintenance Atezolizumab**

Carboplatin AUC 4.5-6 , day 1 + Albumin-bound Paclitaxel 100 mg/m<sup>2</sup> , day 1 + Atezolizumab 1200 mg , day 1, every 3 weeks



- C. Nivolumab + Ipilimumab + Pemetrexed + (Carboplatin or Cisplatin) followed by maintenance Ipilimumab + Nivolumab (category 1)**  
Nivolumab 360 mg , day 1+ Ipilimumab 50 mg , day 1+ Pemetrexed 500 mg/m<sup>2</sup>+ (Carboplatin AUC 4.5-6, day 1 or Cisplatin 60-75mg/m<sup>2</sup>) , day 1, every 3 weeks
- D. Tremelimumab-actl + Durvalumab + Carboplatin + Albumin-bound Paclitaxel(category 2B)**  
Tremelimumab-actl 75mg, day 1 + Durvalumab 1500 mg , day 1 + Carboplatin AUC 4.5-6, day 1 + Albumin-bound Paclitaxel 100mg/m<sup>2</sup> , day 11, every 3 weeks
- E. Tremelimumab-actl + Durvalumab + (Carboplatin or Cisplatin) + Pemetrexed(category 2B)**  
Tremelimumab-actl 75 mg , day 1 + Durvalumab 1500 mg , day 1 + (Carboplatin AUC 4.5-6, day 1 or Cisplatin 60-75 mg/m<sup>2</sup> , day 1)+ Pemetrexed 500 mg/m<sup>2</sup> , day 1, every 3 weeks
- F. Nivolumab + Ipilimumab + Paclitaxel + Carboplatin followed by maintenance Ipilimumab + Nivolumab (category 1) for Squamous Cell Carcinoma**  
Nivolumab 360 mg , day 1+ Ipilimumab 50 mg, day 1+ Paclitaxel 180 mg/m<sup>2</sup>+ Carboplatin AUC 4.5-6, day 1, every 3 weeks
- G. Tremelimumab-actl + Durvalumab + Carboplatin + Albumin-bound Paclitaxel followed by maintenance Durvalumab (category 2B) for Squamous Cell Carcinoma**  
Tremelimumab-actl 75mg , day 1 + Durvalumab 1500mg , day 1 + Carboplatin AUC 4.5-6, day 1 + Albumin-bound Paclitaxel 100mg/m<sup>2</sup> Day 1, every 3 weeks
- H. Tremelimumab-actl + Durvalumab + (Carboplatin or Cisplatin) + Gemcitabine followed by maintenance Durvalumab (category 2B) for Squamous Cell Carcinoma**  
Tremelimumab-actl 75mg , day 1 + Durvalumab 1500mg , day 1 +(Carboplatin AUC 4.5-6 , day 1 or Cisplatin 50-75mg/m<sup>2</sup>)+ Gemcitabine 1000mg/m<sup>2</sup>, day 1, every 3 weeks

Useful in Certain Circumstances

- A. Nivolumab + Ipilimumab followed by maintenance Ipilimumab + Nivolumab (category 1)**  
Nivolumab 360mg , day 1+ Ipilimumab 50mg , day 1, every 3 weeks

**◆ PD-L1  $\geq 1\%$ –49% FIRST-LINE THERAPY (PS 0–2)****Preferred**

- A. (Carboplatin or Cisplatin) + Pemetrexed + Pembrolizumab followed by maintenance Pemetrexed + Pembrolizumab then Pemetrexed (category 1)**  
(Carboplatin AUC 4.5-6, day 1 or Cisplatin 60-75mg/m<sup>2</sup>, day 1) + Pemetrexed 500mg/m<sup>2</sup>, day 1 + Pembrolizumab 200mg, day 1, every 3 weeks
- B. Carboplatin + (Paclitaxel or Albumin-bound Paclitaxel) + Pembrolizumab followed by maintenance Pembrolizumab (category 1)**  
Carboplatin AUC 4.5-6, day 1 + (Paclitaxel 180mg/m<sup>2</sup> or Albumin-bound Paclitaxel 100mg/m<sup>2</sup>), day 1 + Pembrolizumab 200mg, day 1, every 3 weeks

**Other Recommended**

- A. Carboplatin + Paclitaxel + Bevacizumab + Atezolizumab followed by maintenance Bevacizumab ± Atezolizumab (category 1)**  
Carboplatin AUC 4.5-6, day 1 + Paclitaxel 180mg/m<sup>2</sup>, day 1 + Bevacizumab 7.5mg/kg, day 1 + Atezolizumab 1200mg, day 1, every 3 weeks
- B. Carboplatin + Albumin-bound Paclitaxel + Atezolizumab followed by maintenance Atezolizumab**  
Carboplatin AUC 4.5-6, day 1 + Albumin-bound Paclitaxel 100mg/m<sup>2</sup>, day 1 + Atezolizumab 1200mg, day 1, every 3 weeks
- C. Nivolumab + Ipilimumab + Pemetrexed + (Carboplatin or Cisplatin) followed by maintenance Ipilimumab + Nivolumab(category 1)**  
Nivolumab 360mg, day 1 + Ipilimumab 50mg, day 1 + Pemetrexed 500mg/m<sup>2</sup> + (Carboplatin AUC 4.5-6, day 1 or Cisplatin 60-75mg/m<sup>2</sup>), day 1, every 3 weeks
- D. Nivolumab + Ipilimumab followed by maintenance Ipilimumab + Nivolumab (category 1)**  
Nivolumab 360mg, day 1 + Ipilimumab 50mg, day 1 + Pembrolizumab 200mg, day 1, every 3 weeks
- E. Tremelimumab-actl + Durvalumab + Carboplatin + Albumin-bound Paclitaxel followed by maintenance Durvalumab (category 1)**



Tremelimumab-actl 75mg, day 1 + Durvalumab 1500mg , day 1+ Carboplatin AUC 4.5-6 , day 1 + Albumin-bound Paclitaxel 100mg/m<sup>2</sup> , day 1, every 3 weeks

**F. Tremelimumab-actl + Durvalumab + (Carboplatin or Cisplatin) + Pemetrexed followed by maintenance Durvalumab ± Pemetrexed (category 1) for Adenocarcinoma, Large Cell, NSCLC NOS**

Tremelimumab-actl 75mg, day 1 + Durvalumab 1500mg , day 1 +(Carboplatin AUC 4.5-6 , day 1 or Cisplatin 60-75mg/m<sup>2</sup>)+ Pemetrexed 500mg/m<sup>2</sup> , day 1, every 3 weeks

**G. Nivolumab +Ipilimumab + Paclitaxel + Carboplatin followed by maintenance Ipilimumab + Nivolumab (category 1) (for Squamous Cell Carcinoma)**

Nivolumab 240 mg , day 1+ Ipilimumab 1 mg/kg, day 1+ Carboplatin AUC 4.5-6, day 1+ Paclitaxel 180 mg/m<sup>2</sup> , day 1, every 3 weeks

**H. Tremelimumab-actl + Durvalumab + (Carboplatin or Cisplatin) +Gemcitabine followed by maintenance Durvalumab(for Squamous Cell Carcinoma)**

Tremelimumab-actl 75 mg, day 1+ Durvalumab 1500 mg, day 1+ Carboplatin AUC 4.5-6, day 1+ Gemcitabine 1000 mg/m<sup>2</sup> , day 1every 21 days followed by maintenance Durvalumab

Tremelimumab-actl 75 mg , day 1+ Durvalumab 1500 mg, day 1+ Cisplatin 60 mg/m<sup>2</sup> , day 1+ Gemcitabine 1000 mg/m<sup>2</sup> , day 1every 21 days followed by maintenance Durvalumab

**Useful in Certain Circumstances**

**A. Pembrolizumab followed by maintenance Pembrolizumab (category 2B)**

Pembrolizumab 200mg , day 1, every 3 weeks

**◆ NO contraindications to PD-1 or PD-L1 inhibitors AND NO *EGFR* exon 19 deletion or L858R; *ALK*, *RET*, or *ROS1* rearrangements**

**Preferred**

**A. Carboplatin/Pemetrexed + Pembrolizumab (category 1)**

Carboplatin AUC 4.5-6 day 1 or 8+Pemetrexed 500 mg/m<sup>2</sup> , day 1+Pembrolizumab 200 mg every 21 days

**B. Cisplatin/Pemetrexed + Pembrolizumab (category 1)**



Cisplatin 50-75 mg/m<sup>2</sup> day 1+Pemetrexed 500 mg/m<sup>2</sup>, day 1+Pembrolizumab 200 mg, day 1 every 21 days

**C. Carboplatin/Paclitaxel + Pembrolizumab (category 1) Squamous Cell Carcinoma**

Carboplatin AUC 4.5-6 day 1 + Paclitaxel 180 mg/m<sup>2</sup> day 1+Pembrolizumab 200 mg, day 1 every 21 days

**D. Albumin-bound Paclitaxel/Carboplatin + Pembrolizumab (category 1) Squamous Cell Carcinoma**

Carboplatin AUC 4.5-6 day 1 + Albumin-bound Paclitaxel 100 mg/m<sup>2</sup> day 1,8,15+Pembrolizumab 200 mg, day 1 every 21 days

**Other Recommended**

**A. Carboplatin/Paclitaxel + Atezolizumab + Bevacizumab(category 1) for Adenocarcinoma**

Carboplatin AUC 4.5-6 day 1 + Paclitaxel 180 mg/m<sup>2</sup> day 1+ Atezolizumab 1200 mg, day 1 every 21 days

**B. Albumin-bound Paclitaxel/Carboplatin + Atezolizumab for Adenocarcinoma**

Albumin-bound Paclitaxel 100 mg/m<sup>2</sup>, day 1+ Carboplatin AUC 4.5-6 day 1 + Atezolizumab 1200 mg, day 1 every 21 days

**C. Ipilimumab+ Nivolumab**

Nivolumab 240 mg, day 1+ Ipilimumab 1 mg/kg, day 1 every 21 days

**D. (Carboplatin or Cisplatin)/Pemetrexed + Ipilimumab + Nivolumab (category 1) for Adenocarcinoma**

Carboplatin AUC 4.5-6 day 1 + Pemetrexed 500 mg/m<sup>2</sup>, day 1+Nivolumab 240 mg, day 1+ Ipilimumab 1 mg/kg, day 1 every 21 days

Cisplatin 50-75 mg/m<sup>2</sup> day 1+ Pemetrexed 500 mg/m<sup>2</sup>, day 1+Nivolumab 240 mg+ Ipilimumab 1 mg/kg, day 1 every 21 days

**E. Albumin-bound Paclitaxel/Carboplatin+ Durvalumab+ Tremelimumab-actl (category 1)**

Albumin-bound Paclitaxel 100 mg/m<sup>2</sup>, day 1 + Carboplatin AUC 4.5-6, day 1+ Durvalumab 1500 mg, day 1+ Tremelimumab-actl 75 mg, day 1 every 21 days

**F. (Carboplatin or Cisplatin)/Pemetrexed+ Durvalumab+ Tremelimumab-actl (category 1)**

Carboplatin AUC 4.5-6 day 1 + Pemetrexed 500 mg/m<sup>2</sup>, day 1+Durvalumab 1500 mg+ Tremelimumab-actl 75 mg day 1 every 21 days

Cisplatin 50-75 mg/m<sup>2</sup>, day 1+ Pemetrexed 500 mg/m<sup>2</sup>, day 1+Durvalumab 1500 mg, day 1+ Tremelimumab-actl 75



mg day 1, every 21 days

**G. Carboplatin/Paclitaxel + Ipilimumab + Nivolumab (category 1)**

Carboplatin AUC 4.5-6 day 1 + Paclitaxel 180 mg/m<sup>2</sup>, day 1 + Nivolumab 240 mg, day 1 + Ipilimumab 1 mg/kg, day 1 every 21 days

**H. (Carboplatin or Cisplatin)/Gemcitabine+ Durvalumab+ Tremelimumab-actl(category 1)**

Carboplatin AUC 4.5-6, day 1 + Gemcitabine 1000 mg/m<sup>2</sup>, day 1 + Durvalumab 1500 mg, day 1 + Tremelimumab-actl 75 mg day 1 every 21 days

Cisplatin 50-75 mg/m<sup>2</sup>, day 1 + Gemcitabine 1000 mg/m<sup>2</sup>, day 1 + Durvalumab 1500 mg, day 1 + Tremelimumab-actl 75 mg day 1 every 21 days

◆ **Other Chemotherapy Regimens**

**A. Cisplatin + Gemcitabine**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Gemcitabine 1000 mg/m<sup>2</sup>, days 1 and 8, every 21 days

**B. Carboplatin + Gemcitabine**

Carboplatin AUC 4.5-6 day 1, Gemcitabine 1000 mg/m<sup>2</sup>, days 1 and 8, every 21 days

**C. Cisplatin + Paclitaxel**

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 60 mg/m<sup>2</sup>, days 1, 8 and 15, every 21 days

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 90 mg/m<sup>2</sup>, days 1 and 15, every 21 days

Cisplatin 50-75 mg/m<sup>2</sup> day 1 (adjusted by Ccr), Paclitaxel 180 mg/m<sup>2</sup>, days, every 21 days

**D. Carboplatin + Paclitaxel**

Carboplatin AUC 4.5-6 day 1, Paclitaxel 60 mg/m<sup>2</sup>, days 1, 8 and 15, every 21 days

Carboplatin AUC 4.5-6 day 1, Paclitaxel 90 mg/m<sup>2</sup>, days 1 and 15, every 21 days

Carboplatin AUC 4.5-6 day 1, Paclitaxel 180 mg/m<sup>2</sup>, days 1, every 21 days

**E. Cisplatin+Vinorelbine**

Cisplatin 50-75 mg/m<sup>2</sup>, day 1 (adjusted by Ccr), Vinorelbine 60-80 mg/m<sup>2</sup>, PO Day 1 or 8, 15, every 21 days

**F. Carboplatin +Vinorelbine**

Carboplatin AUC 4.5-6 day 1, Vinorelbine 60-80 mg/m<sup>2</sup>, PO Day 1 or 8, 15, every 21 days



**G. Cisplatin+Docetaxel**

Cisplatin 50-75 mg/m<sup>2</sup>, day 1(adjusted by Ccr), Docetaxel 25-35 mg/m<sup>2</sup>, days 1,8, every 21 days

**H. Carboplatin +Docetaxel**

Carboplatin AUC 4.5-6 day 1, Docetaxel 25-35 mg/m<sup>2</sup>, days 1,8, every 21 days

Carboplatin AUC 4.5-6 day 1, Docetaxel 60 mg/m<sup>2</sup>, days 1, every 21 days

**I. Cisplatin + Pemetrexed(non-squamous)**

Cisplatin 50-75 mg/m<sup>2</sup>, day 1(adjusted by Ccr), Pemetrexed 500 mg/m<sup>2</sup>, days 1, every 21 days

**J. Carboplatin + Pemetrexed(non-squamous)**

Carboplatin AUC 4.5-6 day 1, Pemetrexed 500 mg/m<sup>2</sup>, days 1, every 21 days

**K. Cisplatin+Etoposide**

Cisplatin 50-75 mg/m<sup>2</sup>, day 1(adjusted by Ccr), Etoposide 100 mg/m<sup>2</sup>, days 1–3, every 28 days

**L. Carboplatin +Etoposide**

Carboplatin AUC 4.5-6 day 1, Etoposide 100 mg/m<sup>2</sup>, days 1–3, every 28 days

**M. TS-1**

TS-1 80mg~120mg PO (adjusted by BSA) 休息 14 天 or Day1~14, 休息 7 天。

**N. Weekly Docetaxel**

Docetaxel 25-35 mg/m<sup>2</sup>, days 1,8,15, every 21 days

**O. Docetaxel**

Docetaxel 60 mg/m<sup>2</sup>, days 1, every 21 days

**P. Pemetrexed**

Pemetrexed 500 mg/m<sup>2</sup>, days 1, every 21 days

**Q. Gemcitabine**

Gemcitabine 1000 mg/m<sup>2</sup>, days 1 and 8, every 21 days

**R. Docetaxel + Ramucirumab**

Docetaxel 60 mg/m<sup>2</sup>, days 1, Ramucirumab 8 mg/kg, days 1, every 21 days

**S. Albumin-bound Paclitaxel**

Albumin-bound Paclitaxel 100 mg/m<sup>2</sup>, day 1,8,15, every 21 days



◆ Systemic therapy for advanced or metastatic disease-Subsequent

Systemic ICIs

A. Nivolumab (category 1)

Nivolumab 360 mg ,day 1, every 21 days

B. Pembrolizumab (category 1)

Pembrolizumab 200 mg, day 1, every 21 days

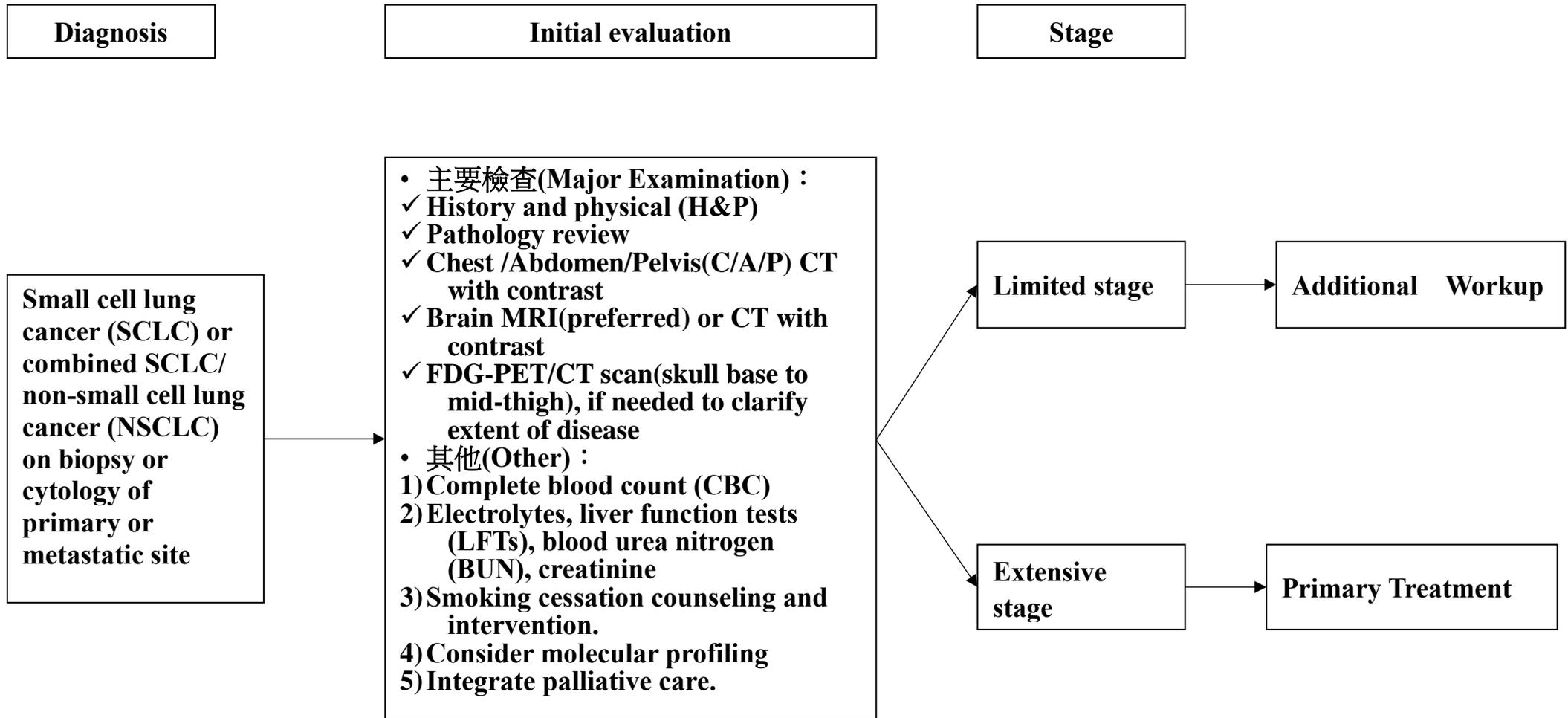
C. Atezolizumab (category 1)

Atezolizumab 1200 mg, day 1, every 21 days

SYSTEMIC THERAPY FOR ADVANCED OR METASTATIC DISEASE – PROGRESSION

ADENOCARCINOMA, LARGE CELL, NSCLC NOS	SQUAMOUS CELL CARCINOMA
<p><b>Options for PS 0–2:</b>            Nivolumab, Pembrolizumab, or Atezolizumab; Datopotamab deruxtecan-dlnk (<i>EGFR</i> mutations); Lazertinib + Amivantamab-vmjw (<i>EGFR</i> exon 19 deletion or L858R mutation); Fam-trastuzumab deruxtecan-nxki (HER2 IHC 3+); Telisotuzumab vedotin-tllv (HGFR [<i>MET</i>] ≥50% IHC 3+ and <i>EGFR</i> wild-type); Docetaxel (category 2B); Pemetrexed (category 2B); Gemcitabine (category 2B); Docetaxel + Ramucirumab (category 2B); or Albumin-bound Paclitaxel (category 2B)</p> <p><b>PS 3–4:</b>            Best supportive care</p>	<p><b>Options for PS 0–2:</b>            Nivolumab, Pembrolizumab, or Atezolizumab; Fam-trastuzumab deruxtecan-nxki (HER2 IHC 3+); Docetaxel (category 2B); Gemcitabine (category 2B); Docetaxel + Ramucirumab (category 2B); or Albumin-bound Paclitaxel (category 2B)</p> <p><b>PS 3–4:</b>            Best supportive care</p>

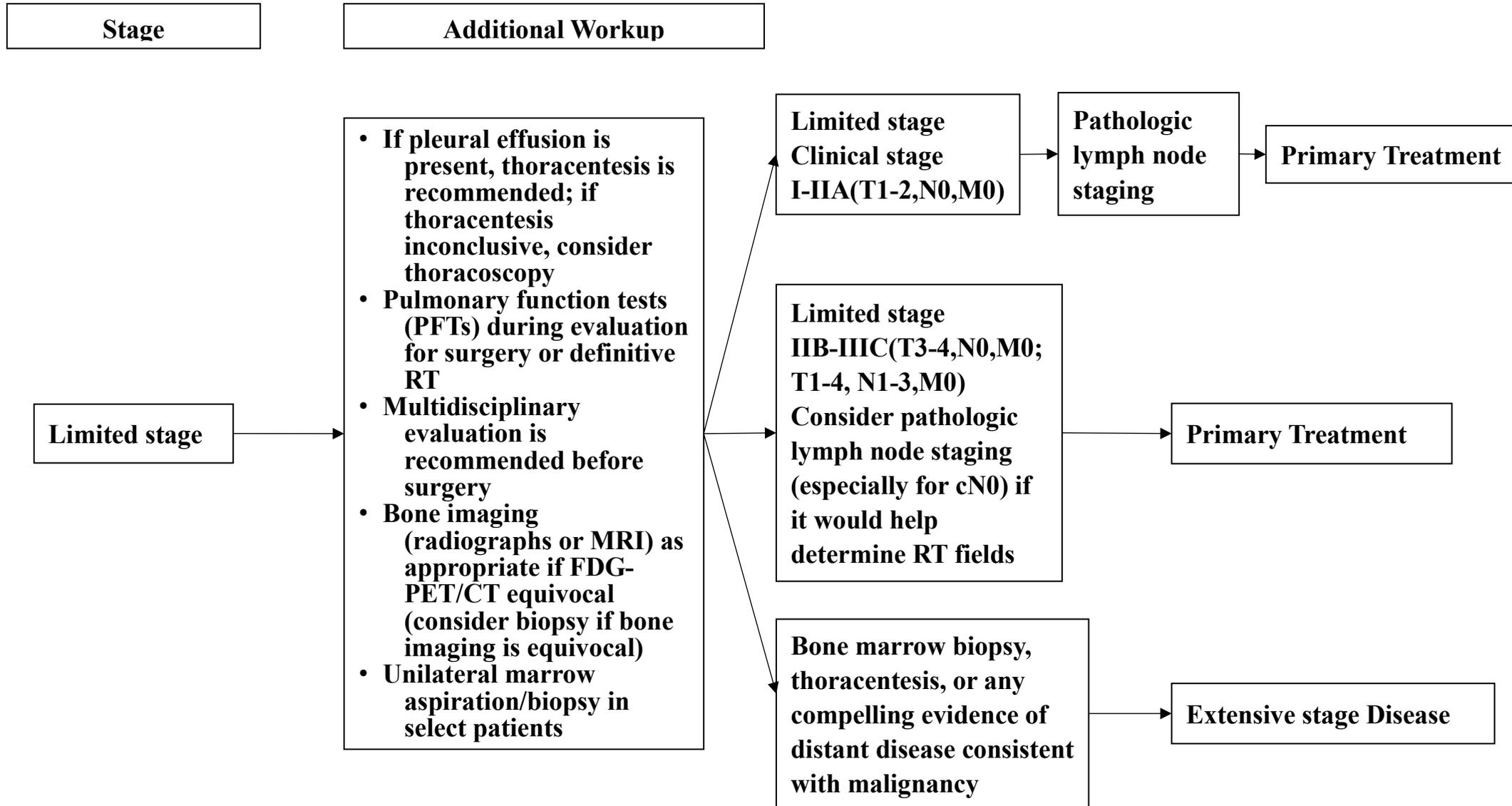
### 五、小細胞肺癌治療指引



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

Note: All recommendations are category 2A unless otherwise indicated.

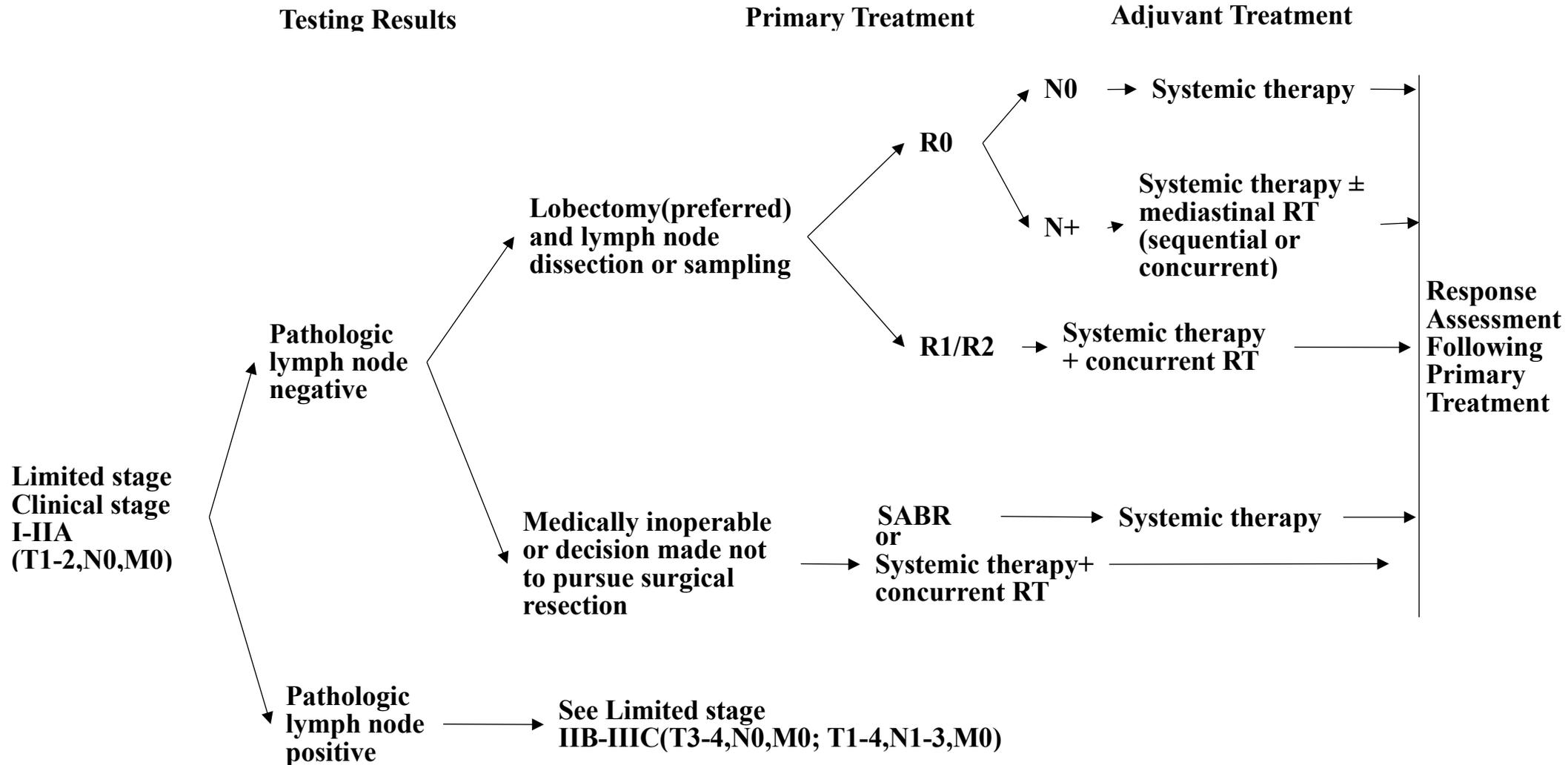
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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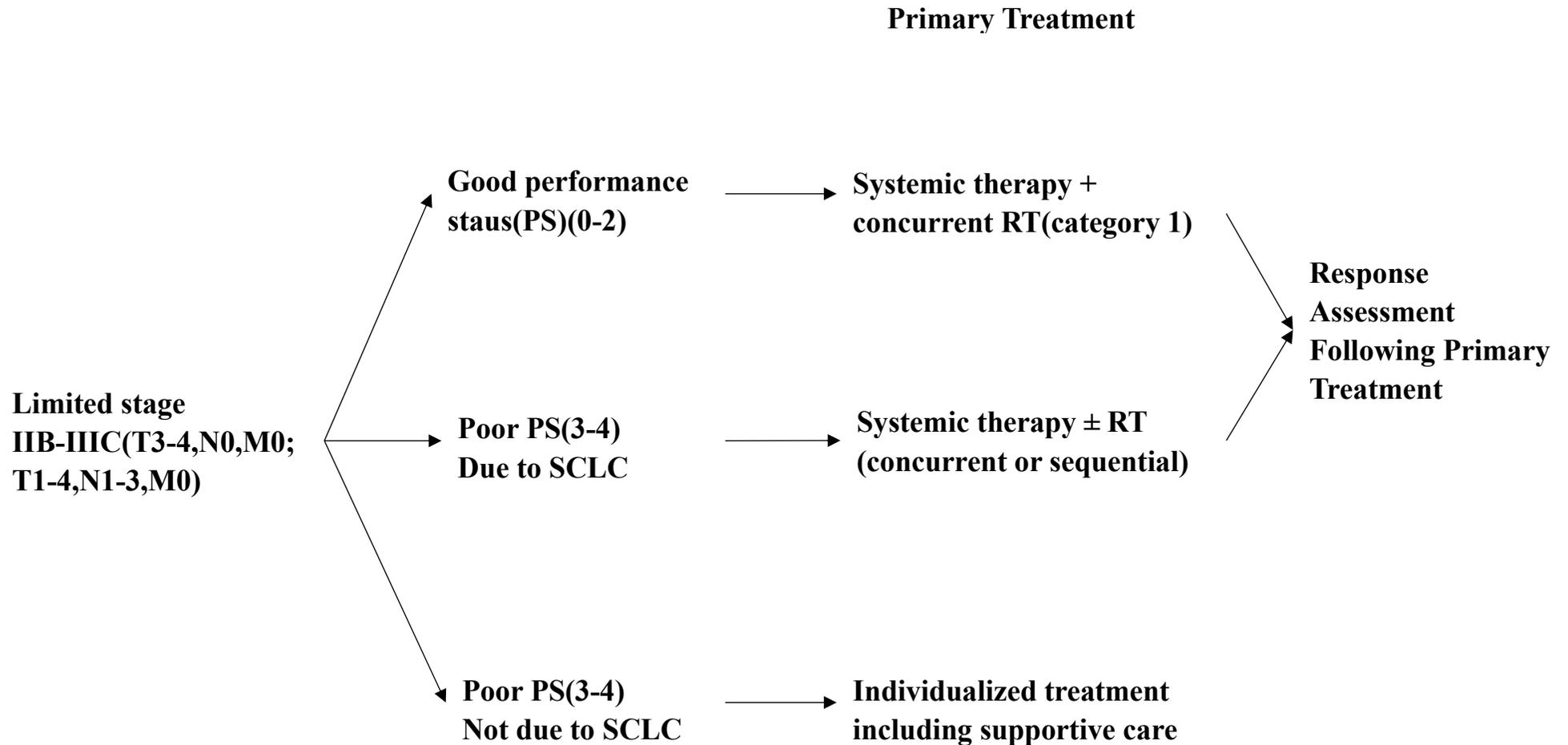
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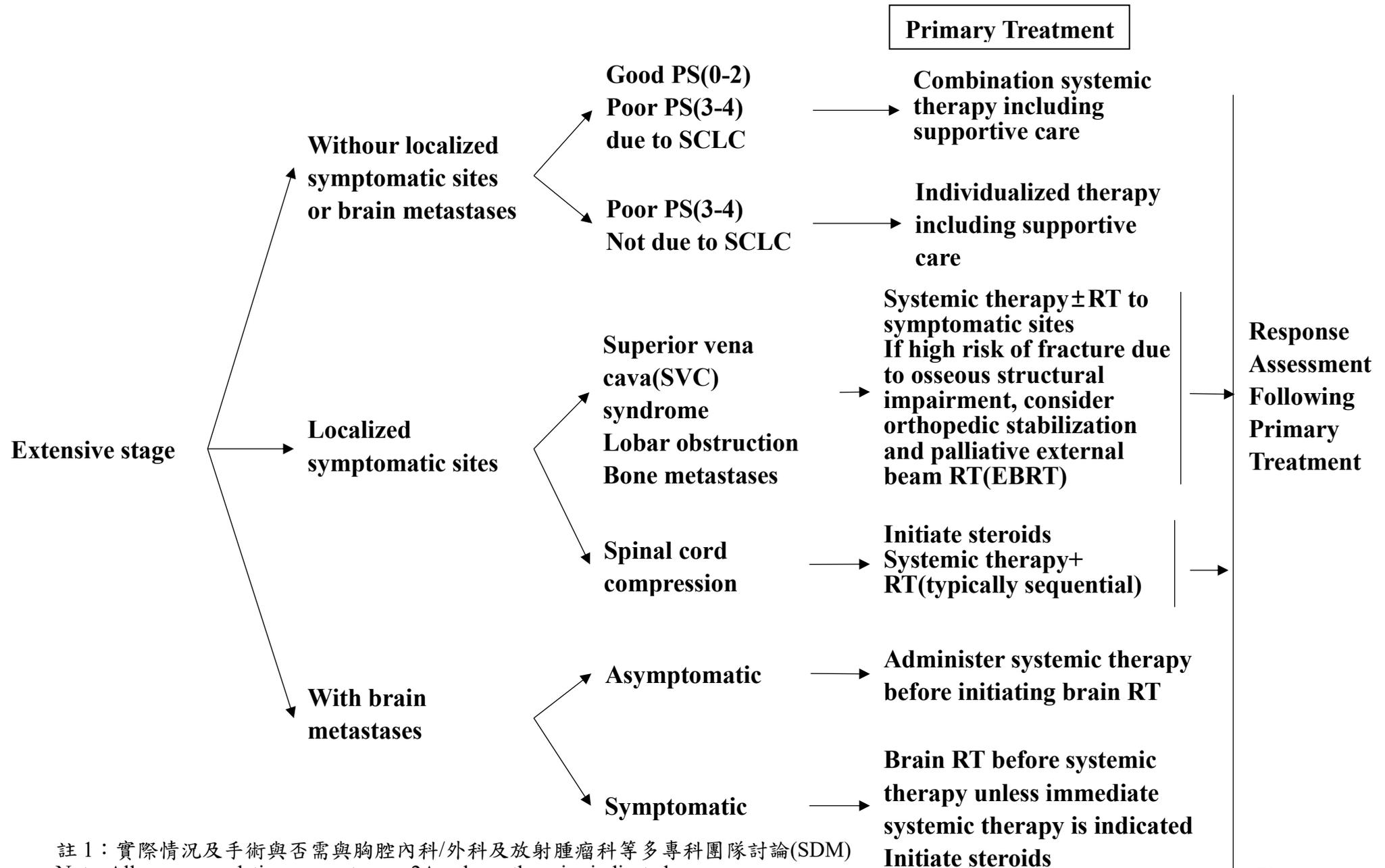
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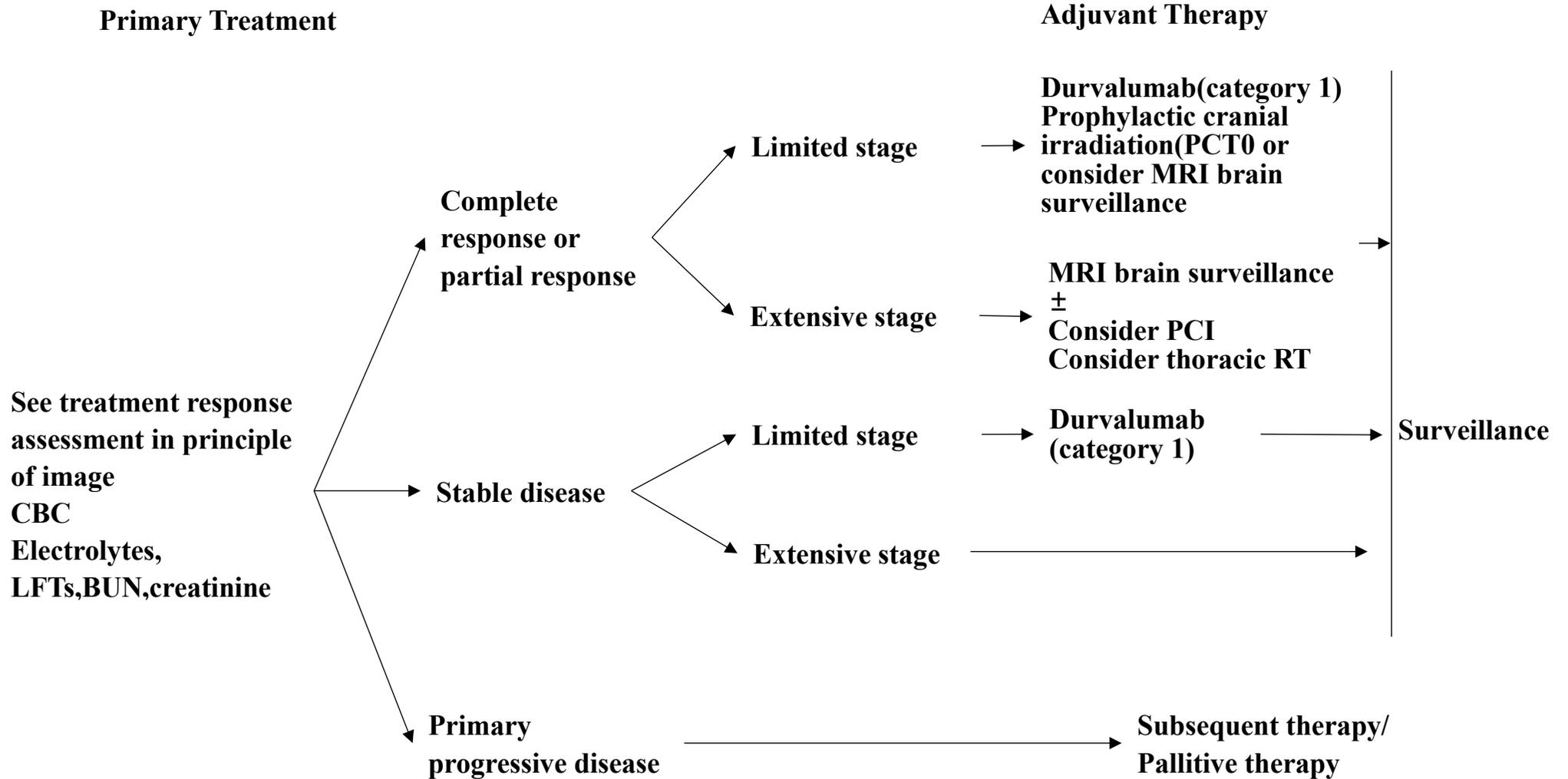


註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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Response Assessment Following



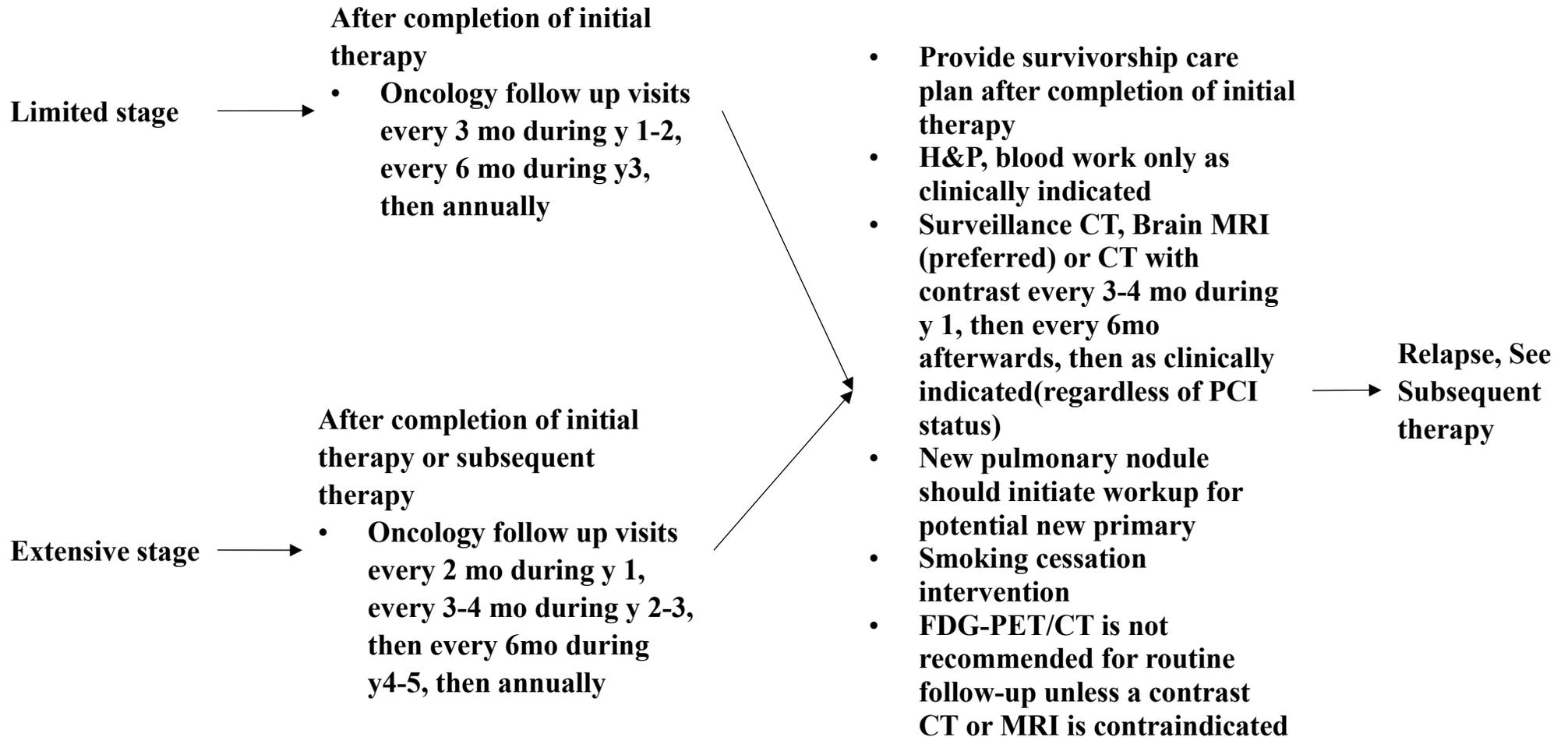
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Surveillance



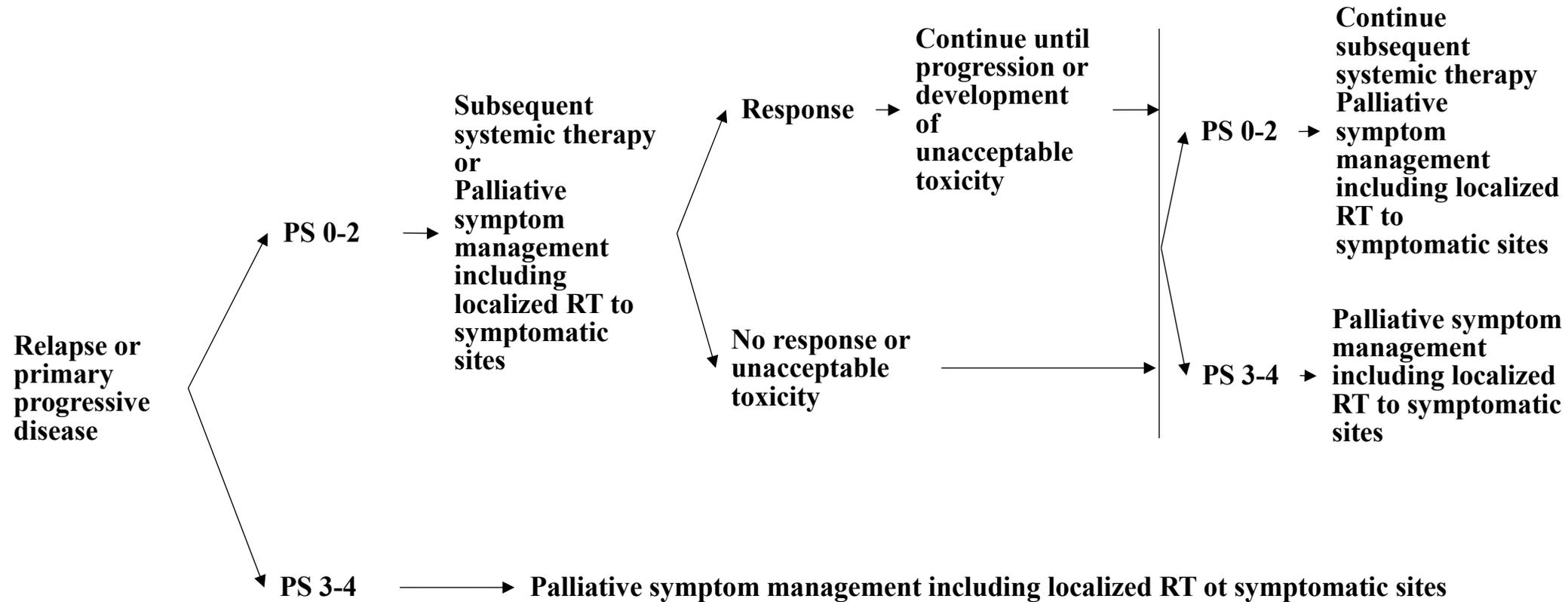
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Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

Progression Disease

Subsequent Therapy/Palliative Therapy



註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

## 六、小細胞肺癌化學治療原則

### Limited stage (maximum of 4-6 cycles)

#### ➤ Primary or Adjuvant Therapy

##### Preferred

Cisplatin 50-75 mg/m<sup>2</sup> Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days for 4-6 cycles (adjusted by Ccr)

Carboplatin (AUC) 4.5–6 Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days for 4-6 cycles (adjusted by Ccr)

##### **Consolidation Therapy**

Durvalumab 1500 mg Day 1 every 28 Days for up to 12 months(category 1)

##### Other Recommended

Cisplatin 25 mg/m<sup>2</sup> Days 1, 2, 3 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days for 4-6 cycles

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

➤ **Extensive stage (maximum of 4-6 cycles)**

**Preferred**

Carboplatin AUC 4.5-6 Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 and Atezolizumab 1200 mg Day 1 every 21 Days x 4 cycles followed by maintenance Atezolizumab 1200 mg Day 1, every 21 Days (category 1 for all)

Carboplatin AUC 4.5-6 Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 and Atezolizumab 1200 mg Day 1 every 21 Days x 4 cycles followed by maintenance Atezolizumab 1680 mg Day 1, every 28 Days

Carboplatin AUC 4.5-6 Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 and Atezolizumab 1200 mg Day 1 every 21 Days x 4 cycles followed by maintenance Lurbinectedin 3.2 mg/m<sup>2</sup> and Atezolizumab 1200 mg Day 1, every 21 Days

Carboplatin AUC 4.5–6 Day 1 and Etoposide 80–100 mg/m<sup>2</sup> Days 1, 2, 3 and Durvalumab 1500 mg Day 1 every 21 Days x 4 cycles followed by maintenance Durvalumab 1500 mg Day 1 every 28 Days (category 1 for all)

Cisplatin 50-75 mg/m<sup>2</sup> Day 1 and Etoposide 80–100 mg/m<sup>2</sup> Days 1, 2, 3 and Durvalumab 1500 mg Day 1 every 21 Days x 4 cycles followed by maintenance Durvalumab 1500 mg Day 1 every 28 Days (category 1 for all)

**Other Recommended**

Carboplatin AUC 4.5–6 Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days

Cisplatin 50-75 mg/m<sup>2</sup> Day 1 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days

Cisplatin 50-75 mg/m<sup>2</sup> Day 1 and Etoposide 80 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days

Cisplatin 25 mg/m<sup>2</sup> Days 1, 2, 3 and Etoposide 100 mg/m<sup>2</sup> Days 1, 2, 3 every 21 Days

**Useful in Certain Circumstances**

Carboplatin AUC 4.5-6 Day 1 and Irinotecan 50 mg/m<sup>2</sup> Days 1, 8, 15 every 21 Days

Cisplatin 60 mg/m<sup>2</sup> Day 1 and Irinotecan 50 mg/m<sup>2</sup> Days 1, 8, 15 every 21 Days

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.

**SCLC SUBSEQUENT SYSTEMIC THERAPY (PS 0–2)****Preferred**

Tarlatamab-dlle(category 1) step-up dose of 1 mg on Day 1 of cycle 1, followed by 10 mg on Days 8 and 15 of cycle 1 and then 10 mg every 2 weeks thereafter in 28-Day cycles Day 1 every 28 Days

Irinotecan 50 mg/m<sup>2</sup> Days 1, 8, 15 every 21 Days

Lurbinectedin (if not previously used) 3.2 mg/m<sup>2</sup> Day 1, every 21 Days

If prolonged disease free time, re-treatment with platinum-based doublet with or without immunotherapy  
Topotecan Oral (PO) or Intravenous (IV)

**Other Recommended****CAV (Cyclophosphamide/Doxorubicin/ Vincristine)**

Cyclophosphamide 1000 mg/m<sup>2</sup> Day 1 and Doxorubicin 45 mg/m<sup>2</sup> Day 1 and Vincristine 2 mg/m<sup>2</sup> Day 1

Docetaxel 100 mg/m<sup>2</sup> Day 1 every 21 Days

Gemcitabine 1000 mg/m<sup>2</sup> Day 1,8 every 21 Days

Nivolumab 3 mg/kg Day 1 every 14 Days or

Pembrolizumab 200 mg/m<sup>2</sup> Day 1 every 21 Days (if not previously treated with an ICI)

Oral Etoposide 50 mg/m<sup>2</sup> Day 1-21 every 28 Days

Paclitaxel 175 mg/m<sup>2</sup> Day 1 every 21 Days

Temozolomide 75 mg/m<sup>2</sup> Day 1 every 21 Days

其它藥物如 **Ifosfamide**、**Paclitaxyl**、**Docetaxel**、**Gemcitabine**，亦可建議使用。

若病人接受過 **Platinum**、**Etoposide** 及另一線化學治療後，可考慮使用免疫治療。

註 1：實際情況及手術與否需與胸腔內科/外科及放射腫瘤科等多專科團隊討論(SDM)

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 especially encouraged.



## 七、放射線治療指引

### Non-Small Cell Lung Cancer

Staging	Treatment	Adjuvant treatment
Operable - cT1~3N0~1	Operation (OP)	Postoperative RT if (1) <u>Margin (+)</u> (R1-2) or (2) <u>pN2</u>
Medically inoperable - cT1~2N0	1) Definitive radiotherapy (RT) or 2) Stereotactic ablative radiotherapy (SABR)	Chemotherapy (C/T) <u>if high risk</u>
Medically inoperable - cT1-3N(+)	1) Definitive chemoradiation (CRT) 2) RT alone if not suitable for C/T	Durvalumab
Resectable - cT3~4N0~1	1) OP 2) Neoadjuvant C/T OP	Postoperative RT if (1) <u>Margin (+)</u> (R1-2) or (2) <u>pN2</u>
Unresectable - cT3~4N0~1	1) Definitive concurrent chemoradiation (CCRT ) 2) RT alone if not suitable for C/T	Durvalumab
Superior Sulcus Tumor - cT3~4N0~1	1) Neoadjuvant CCRT OP 2) Definitive CCRT	Durvalumab <u>if no OP</u>
- cT1~3N2	1) Definitive CCRT 2) Neoadjuvant CT OP 3) Neoadjuvant CCRT OP 4) RT alone if not suitable for C/T	1) Durvalumab <u>if no OP</u> 2) PORT <u>if not given</u>
- cT1~3N2	1) Definitive CCRT 2) RT alone if not suitable for C/T	Durvalumab <u>if no OP</u>
Stage IVA, IVB	1) Systemic therapy 2) Definitive RT to oligometastases 3) Palliative RT for symptoms 4) Consolidative RT to primary sites	



Staging	Treatment	Adjuvant treatment
Limited stage (cT1~2N0)	1.OP 2. SBRT	1. Adjuvant C/T 2. Mediastinal RT if pN1/N2 3. Prophylactic cranial irradiation (PCI) <u>for responder</u>
Limited stage (cT1~2N0)	Definitive CCRT	PCI for responder
Limited stage (cT3~4N0, cT1~4N+)	1. Definitive CCRT 2. Definitive SCRT <u>if poor PS</u>	PCI for responder
Extensive stage	1. Systemic therapy 2. Palliative RT for symptoms	1. Brain MRI f/u <u>for responder</u> 2. Thoracic RT or Consider PCI(optional)for responder

## NSCLC RT dose

1. Definitive RT/ CCRT: 60~70Gy at (1.8~2Gy/ fraction, 5 times per week)
2. Neoadjuvant CCRT: 45~ 54Gyat (1.8~2Gy/ fraction, 5 times per week)
3. PORT for (margin (-) and pN2): 50~54Gy at (1.8~2Gy/ fraction, 5 times per week)
4. PORT for (ENE or R1): 54~60Gy at (1.8~2Gy/ fraction, 5 times per week)
5. PORT for (R2): 60~70Gy at (1.8~2Gy/ fraction, 5 times per week)
6. 治療天數應由病況決定，合理範圍：25~63 天。
7. Palliative RT of metastases : For patients with oligometastatic disease and good performance status consider higher doses (45–60 Gy) in 1.8–2 Gy daily fractions, or SBRT following principles for treatment of oligometastases

## SCLC RT dose

1. Limited stage Definitive CCRT:
  - 1) 60~70Gy at (1.8~2Gy/ fraction, 5 times per week),
  - 2) 45-60Gy/30fr at (1.5Gy/ fraction, BID)
2. Extensive stage: Consolidation thoracic RT w/ 30Gy/10frs ~ 60Gy/ 30fr. 依病人臨床狀況而定。
3. PCI: 25Gy/ 10fr at (2.5Gy/ fraction, 5 times per week)



## SBRT dose

經胸腔外科醫師評估過後：(1) 無法接受手術。(2) 手術風險高之病患(ex. Age  $\geq$  75, 肺功能差)。

### Commonly Used Doses for SABR

Total Dose	# Fractions	Example Indications
25–34 Gy	1	Peripheral, small (<2 cm) tumors, esp. >1 cm from chest wall
45–60 Gy	3	Peripheral tumors and >1 cm from chest wall
48–50 Gy	4	Central or peripheral tumors <4–5 cm, especially <1 cm from chest wall
50–55 Gy	5	Central or peripheral tumors, especially <1 cm from chest wall
50–60 Gy	5	Peripheral tumors
60–70 Gy	8-10	Central tumors

### Maximum Dose Constraints for SABR

OAR/Regimen	1 Fraction	3 Fractions	4 Fractions	5 Fractions
Spinal cord	14 Gy	18 Gy(6 Gy/fx)	26 Gy(6.5 Gy/fx)	30 Gy(6 Gy/fx)
Esophagus	15.4 Gy	27 Gy(9 Gy/fx)	30 Gy(7.5 Gy/fx)	105% of PTV Prescription <sup>^</sup>
Brachial plexus	17.5 Gy	24 Gy(8 Gy/fx)	27.2 Gy(6.8 Gy/fx)	32 Gy(6.4 Gy/fx)
Heart / pericardium	22 Gy	30 Gy(10 Gy/fx)	34 Gy(8.5 Gy/fx)	105% of PTV prescription <sup>^</sup>
Great vessels	37 Gy	NS	49 Gy(12.25 Gy/fx)	105% of PTV prescription <sup>^</sup>
Trachea & proximal bronchi	20.2 Gy	30 Gy(10 Gy/fx)	34.8 Gy(8.7 Gy/fx)	105% of PTV prescription <sup>^</sup>
Rib	30 Gy	30 Gy(10 Gy/fx)	40 Gy(10 Gy/fx)	NS
Skin	26 Gy	24 Gy(8 Gy/fx)	36 Gy(9 Gy/fx)	32 Gy(6.4 Gy/fx)
Stomach	12.4 Gy	NS	27.2 Gy(6.8 Gy/fx)	NS

<sup>^</sup>For central tumor location. NS = not specified.



## Commonly Used Doses for Conventionally Fractionated and Palliative RT

Treatment Type	Total Dose	Fraction Size	Treatment Duration
<b>Definitive RT with or without chemotherapy</b>	<b>60–70 Gy</b>	<b>2 Gy</b>	<b>6–7 weeks</b>
<b>Preoperative RT</b>	<b>45–54 Gy</b>	<b>1.8–2 Gy</b>	<b>5 weeks</b>
<b>Postoperative RT</b>			
▶ <b>Negative margins</b>	<b>50–54 Gy</b>	<b>1.8–2 Gy</b>	<b>5–6 weeks</b>
▶ <b>Extracapsular nodal extension or microscopic positive margins</b>	<b>54–60 Gy</b>	<b>1.8–2 Gy</b>	<b>6 weeks</b>
▶ <b>Gross residual tumor</b>	<b>60–70 Gy</b>	<b>2 Gy</b>	<b>6–7 weeks</b>
<b>Palliative RT</b>			
▶ <b>Obstructive disease (SVC syndrome or obstructive pneumonia)</b>	<b>30–45 Gy</b>	<b>3 Gy</b>	<b>2–3 weeks</b>
▶ <b>Bone metastases with soft tissue mass</b>	<b>20–30 Gy</b>	<b>4–3 Gy</b>	<b>1–2 weeks</b>
▶ <b>Bone metastases without soft tissue mass</b>	<b>8–30 Gy</b>	<b>8–3 Gy</b>	<b>1 Day–2 weeks</b>
▶ <b>Brain metastases</b>	<b>CNS GLs*</b>	<b>CNS GLs*</b>	<b>CNS GLs*</b>
▶ <b>Symptomatic chest disease in patients with poor PS</b>	<b>17 Gy</b>	<b>8.5 Gy</b>	<b>1–2 weeks</b>
▶ <b>Any metastasis in patients with poor PS</b>	<b>8–20 Gy</b>	<b>8–4 Gy</b>	<b>1 Day–1 week</b>

**Normal Tissue Dose-Volume Constraints for Conventionally Fractionated RT with Concurrent Chemotherapy**

<b>OAR</b>	<b>Constraints in 30–35 fractions</b>
<b>Spinal cord</b>	<b>Max <math>\leq 50</math> Gy</b>
<b>Lung</b>	<b>V20 <math>\leq 35\%–40\%</math> ; MLD <math>\leq 20</math> Gy</b>
<b>Heart</b>	<b>V40 <math>\leq 20\%</math>; Mean <math>\leq 20</math> Gy</b>
<b>Esophagus</b>	<b>Mean <math>\leq 34</math> Gy; Max <math>\leq 105\%</math> of prescription dose; V60 <math>\leq 17\%</math>; contralateral sparing is desirable</b>
<b>Brachial plexus</b>	<b>Median dose <math>\leq 69</math> Gy</b>

## 八、溫度燒融治療的原則 Thermo-Ablation Therapy (TAT)

包括：射頻消融治療 Radiofrequency Ablation(RFA)、微波消融治療 Microwave Ablation(MWA)、低溫消融治療 Cryoablation (CA)

- 1.溫度消融治療(TAT)是局部治療的一種選擇；它可提供原發或轉移性肺部腫瘤的局部消融控制，其治療的併發症與副作用小，費用相對經濟，可適用於心肺功能不良及老年等不宜手術切除之局部控制治療。
- 2.溫度消融治療(TAT)中 RFA 的有效消融病灶大小為 2 公分以下；腫瘤大小 2-5 公分則以 MWA 或 CA 為宜。
- 3.對於早期(Stage 1-2) NSCLC 不適合開刀或是拒絕開刀的，TAT 可作為治療的選項（若適合開刀，仍以開刀作為第一治療選項）。
- 4.對於晚期(Stage 3-4) NSCLC，TAT 可作為局部控制的一個手段，若病情需要，可合併藥物及電療。
- 5.對於局部控制，TAT 可合併放射治療或免疫治療，可以有加成療效。
- 6.對於 NSCLC 復發的病人，TAT 可作為局部控制的一個手段，對於小於 5 個的多發性肺部轉移腫瘤，可以重複多次 TAT 治療。
- 7.若預期的效果不好（如肋膜積水、縱膈腔腫瘤）則不建議使用 TAT 治療。

## 九、安寧緩和照護原則

- 1.預期存活率小於六個月
- 2.所有第四期病患皆需早期會診安寧緩和醫療照護。



## 十、肺癌完治率定義

癌別	期別		完治定義
肺癌	治療期	0 期 1 期	1. 接受根治性手術為完治日 2. 接受 RFA 或 MWA 為完治日
		2 期	1. 接受根治性手術為完治日
		3A 期	1. C/T → OP 為完治日 2. OP → C/T 4 cycle 為完治日 3. OP → CCRT 為完治日
		3B、3C 期	1. CCRT 為完治日 2. 標靶藥物持續 3 個月為完治日 3. C/T 4-6 cycle 為完治日
		4 期	1. Palliative 口服或標靶藥物持續 3 個月為完治日 2. Palliative C/T 4 cycle 為完治日 3. 接受 RFA 或 MWA 為完治日 4. 若療程改變，換藥物治療時為完治日 5. 治療中轉安寧算完治日



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