

# 高雄榮民總醫院

## 乳癌診療原則

2018年08月31日 第二版

乳癌醫療團隊擬訂

注意事項：這個診療原則主要作為醫師和其他保健專家診療癌症病人參考之用。假如你是一個癌症病人，直接引用這個診療原則並不恰當，只有你的醫師才能決定給你最恰當的治療。

# 修訂指引

- 本共識依下列參考資料修改版本
  - NCCN Clinical Practical Guidelines in Oncology <sup>TM</sup> Breast Cancer (**Version 4.2019**)

# 會議討論

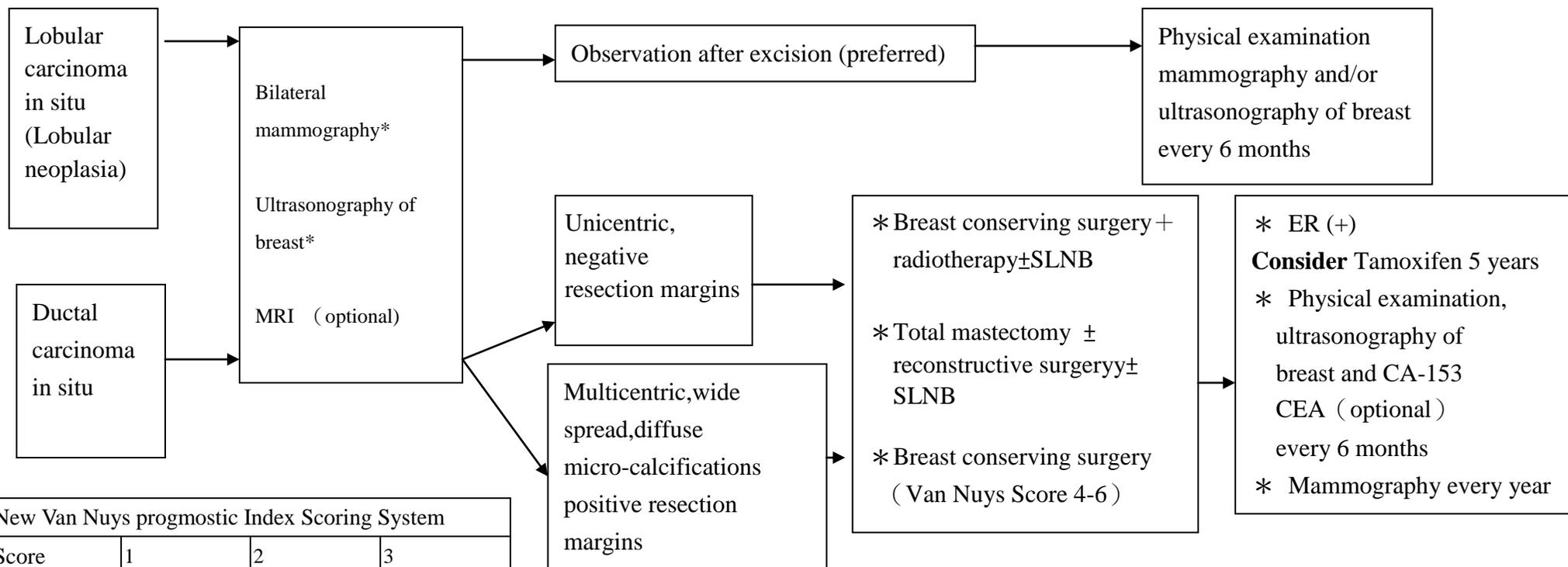
上次會議：2018/01/05

本共識與上一版的差異

上一版	新版
<p>1. 乳癌標靶治療處方 — Perjeta 420~840mg + Herceptin 6~8 mg/kg + Docetaxel 75mg/m<sup>2</sup></p>	<p>1. 新增乳癌標靶治療處方 — Herceptin ( Trastuzumab ) 600mg SC 2018/09/07 — Herceptin + Perjeta ( meitanance ) ( loading ) 2018/09/07</p> <p>2. 刪除乳癌標靶治療處方 — Perjeta 420~840mg + Herceptin 6~8 mg/kg + Docetaxel 75mg/m<sup>2</sup> 2018/09/07</p> <p>3. 第I、II期別WORK-UP新增 Ultrasonography of liver檢查項目；第I—IV與期別相關之主要檢查加註*記號</p>

# Breast Cancer

Kaohsiung Veterans General Hospital  
Clinical Practice Guideline 2018.02 Version



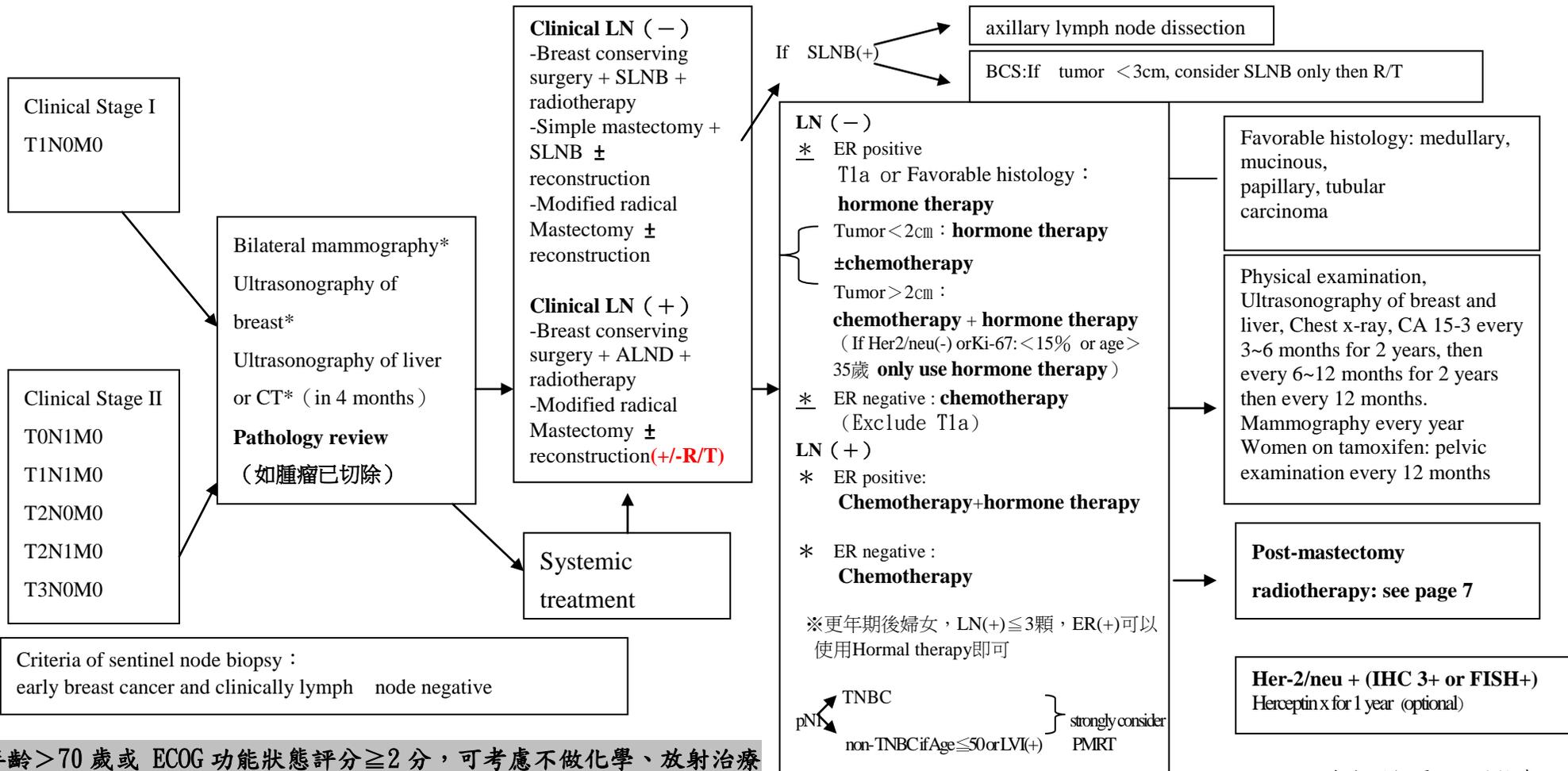
Score	1	2	3
Size	≤ 15mm	16-40mm	≥ 40mm
Margin width	≥ 10mm	1-9mm	< 1mm
Pathologic classification	Non-high-Grade w/o necrosis	Non-high-Grade with necrosis	High-grade With or w/o necrosis
Age	>60	40-60	<40

\*與期別相關之主要檢查

# Breast Cancer

Kaohsiung Veterans General Hospital  
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DIAGNOSIS	WORK-UP	PRIMARY TREATMENT	ADJUVANT TREATMENT	FOLLOW-UP
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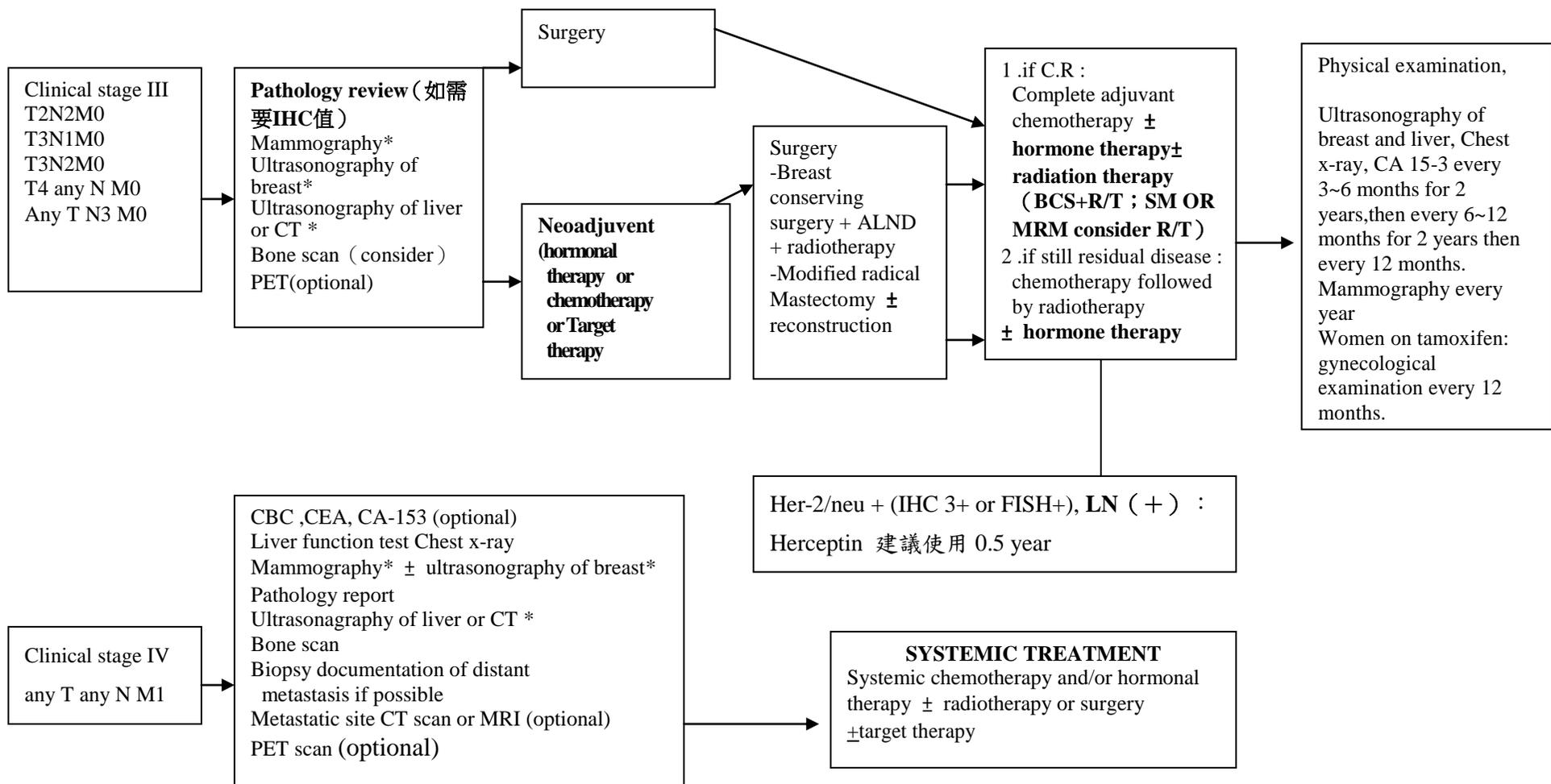
年齡 > 70 歲或 ECOG 功能狀態評分 ≥ 2 分，可考慮不做化學、放射治療

\*與期別相關之主要檢查

# Breast Cancer

Kaohsiung Veterans General Hospital  
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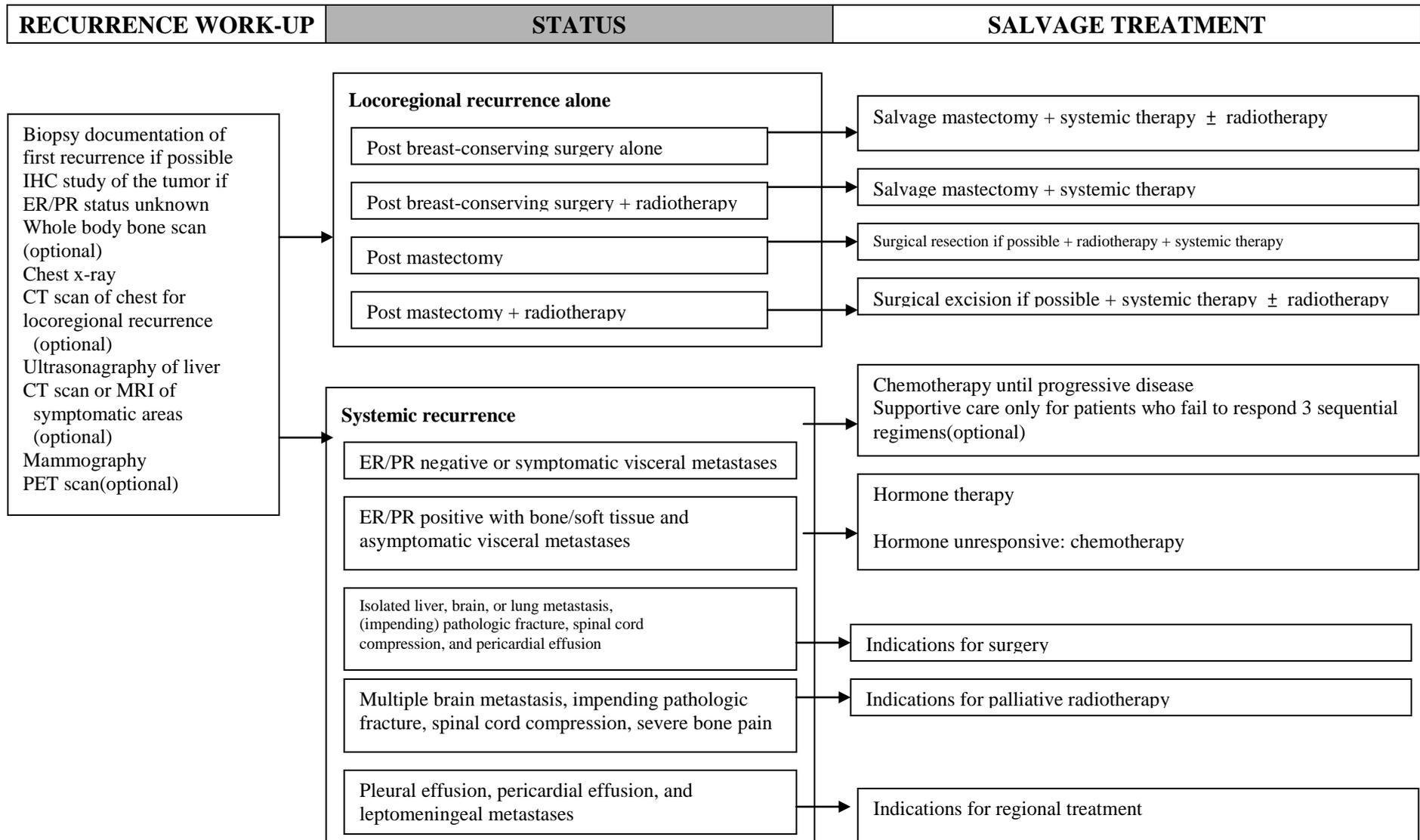
DIAGNOSIS	WORK-UP	PRIMARY TREATMENT	ADJUVANT TREATMENT	FOLLOW-UP
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# Breast Cancer

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## INDICATIONS FOR POST-MASTECTOMY RADIOTHERAPY

1. skin involvement (skin nodule, ulceration, dermal lymphatic involvement)
2. Chest wall involvement
3. positive axillary lymph nodes  $\geq 4$ , lymph nodes positive 1-3 (Strongly consider)
4. positive or close surgical margin
5. tumor  $\geq 5\text{cm}$  · lymph nodes negative (optional) · lymph nodes positive recommendation
6. gross multicentric disease (tumor in more than one quadrant and serpent at least 4cm by clinical or pathology)
7. for breast conservative treatment (if DCIS Van Nuys Score  $\geq 7$ )

## BASIC REQUIREMENTS OF RADIOTHERAPY

- Radiation fields should include ipsilateral chest wall, internal mammary chain and supraclavicular fossa
- Excluding heart from radiation fields
- Central lung distance of the tangential fields  $< 3\text{ cm}$
- No axillary irradiation if axillary clearance is adequate

## BASIC REQUIREMENTS OF PATHOLOGY EXAMINATION

### Excision biopsy with no prior suspicion for malignancy

- Exact tumor size and type of tumor
- Tumor histological and/or nuclear grade
- Margin status (exact distance in mm)
- Status of lymphovascular permeation
- ER and PR study

### Ductal carcinoma in situ with wide excision only

- Nuclear grade
- Status of tumor necrosis
- Tumor size
- Margin status (exact distance in mm)
- ER/PR study

### Invasive carcinoma with wide excision and axillary lymph node dissection or modified radical mastectomy

- Exact tumor size and type of tumor
- Tumor histological grade
- Margin status (exact distance in mm)
- Status of multifocality and multicentricity
- Presence of DCIS and status of extensive intraductal component
- Status of peritumoral LVI
- Number of involved and total axillary lymph nodes with extranodal extension, total number of axillary nodes examined should not be less than 10.
- If any involvement of skin
- ER and PR study Her-2/neu
- Ki67

癌別：乳癌 2018 年

最近改版	2018/01/05		
	處方內容		Reference (No) /strength of evidence
Adjuvant / Neoadjuvant	Chemotherapy formula	schedule	Reference (No) /strength of evidence
	Carboplatin AUC x5mg+ Docetaxel 75mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Carboplatin AUC 4~6+ 5-FU 1000mg/m <sup>2</sup>	Q3WKLY(新增)2015/9/11	No 17 / Level I
	Cisplatin 50mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Cisplatin 50mg/m <sup>2</sup> + 5-FU 500mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Gemcitabine 1250mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Lipo-Dox 50mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Mitoxantrone 12mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Taxol 80 mg/m+Gemcitabine 800mg/m <sup>2</sup>	QWKLY Q3WKLY (刪 2017/10/6) Q4WKLY (刪)	No 17 / Level I
	Taxol 80 mg/m+Cisplatin 50mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Taxol 80 mg/m	QWKLY	No 17 / Level I
	Taxol 175 mg/m	Q3WKLY	No 17 / Level I
	Docetaxel 60mg/m <sup>2</sup> +Cisplatin 50mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	Docetaxel 75mg/m <sup>2</sup> +Gemcitabine 1000mg/m <sup>2</sup>	Q3WKLY (刪 2017/10/6)	No 17 / Level I
	Docetaxel 75mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
	TC (Docetaxel 75mg/m <sup>2</sup> +Cyclophosphamide 500mg/m <sup>2</sup> )	Q3WKLY	
	Vinorelbine 25~30mg/m	D1 or D8	No 17 / Level I
	Docetaxel 75mg/m <sup>2</sup> x1+Xeloda 2.5tab x14 day	Q3WKLY+14 day	No 17 / Level I
	Afinitor 5mg	2tab QD x 14 day	No 17 / Level I
	Xeloda 500mg	2tab Bid x 14 day	No 17 / Level I
Cyclophosphamide	2tab QD x 14 day	No 17 / Level I	
Methotrexate	2tab (BIW) x14 day	No 17 / Level I	
Ufur	3cap (Bid) x14 day	No 17 / Level I	

		Vinorelbine 30mg + Vinorelbine 20mg	2 cap1 + 1cap (QW) x 14 day	No 17 / Level I
		Bleomycin 50mg	once	No 17 / Level I
		FEC(5-FU500mg/m <sup>2</sup> , Epirubicin75mg/m <sup>2</sup> , cyclophosphamide 500mg/m <sup>2</sup> )	2-6 cycles	No 2 / Level I
		FLC (5-FU 500mg/m <sup>2</sup> , Lipo-Dox 35mg/m <sup>2</sup> , cyclophosphamide 500mg/m <sup>2</sup> )	2-6 cycles	No 16 / Level I
		FEC or FLC + Taxol(taxol 175 mg/m <sup>2</sup> ) (Q3W) (taxol 80 mg/m) (QW)	2-4 cycles (Q3W) or 2-12 cycles (QW)	No 7 / Level I
		FEC or FLC+Taxotere (taxotere 75 mg/m <sup>2</sup> )	2-4 cycles (Q3W)	No 9 / Level I
		CMF (Cyclophosphamide 2tab/m <sup>2</sup> +Methotrexate 40mg/m <sup>2</sup> + Fluorouracil 500-600mg/m <sup>2</sup> )	6-12 cycles	No 2 / Level I
		EC or LC (Epirubicin 75mg/m <sup>2</sup> or Lipo-Dox 35mg/m <sup>2</sup> + cyclophosphamide 500mg/m <sup>2</sup> )	6 cycles	No 16 / Level I
		TEC (Docetaxel 75mg/m <sup>2</sup> + Epirubicin 75mg/m <sup>2</sup> + cyclophosphamide 500mg/m <sup>2</sup> )	6 cycles	No 3 / Level I
		Mitoxantrone 10mg/m <sup>2</sup> +Leucovorine 170mg/m <sup>2</sup> +5-FU 600mg/m <sup>2</sup> +Cisplatin 60 mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
		IAIC for Epicin 60mg	once	No 17 / Level I
		Eribulin:1.4mg/ m <sup>2</sup>	on days 1 and 8, 21-day cycle	No 17 / Level I
		Bevacizumab + Paclitaxel	(D1 & D8& D15)	No 19 / Level I
	Hormone therapy	最近改版	<b>2018/01/05</b>	
處方內容		Faslodex 250mg	Q28D	No 17 / Level I
		Goserelin 3.6mg	Q28D	No 17 / Level I
		Leuprorelin 3.75mg	Q28D	No 17 / Level I
		Anastrozole 1mg	1tab (QD) x14 day	No 17 / Level I
		Exemestane 25mg	1tab (QD) x14 day	No 17 / Level I
		Letrozole 2.5 mg	1tab (QD) x14 day	No 17 / Level I
		<b>Palbociclib and Letrozole</b>	<b>1tab (QD) x21 day</b>	<b>No 17 / Level I</b>
		Tamoxifen 10mg	1tab (BID) x28 day	No 17 / Level I
		Toremifene	1tab (QD) x28 day	No 17 / Level I

<b>Target therapy</b>	最近改版	<b>2018/08/31</b>		
	處方內容	Docetaxel 75mg/m <sup>2</sup> +Herceptin 6~8 mg/kg	Q3WKLY ( 刪 )	No 17 / Level I
		Perjeta 420~840mg +Herceptin 6~8 mg/kg + Docetaxel 75mg/m <sup>2</sup>	Q3WKLY ( 刪 2018/9/7 )	No 17 / Level I
		Kadcyla 3.6 mg/kg	Q3WKLY	No 17 / Level I
		Tykerb 250mg + Xeloda 500mg	5 tab (QD) +2tab (Bid) x14 day	No 17 / Level I
		Tykerb 250mg	5 tab (QD) x14 day	No 17 / Level I
		Herceptin 2~8 mg/kg	QWKLY or Q3WKLY	No 17 / Level I
		Herceptin (Trastuzumab) 600mg SC	Q3WKLY	No 22 / Level I
		Herceptin+Perjeta (meitanance)	Q3WKLY	No 21 / Level I
Herceptin+Perjeta (loading)	Q3WKLY	No 21 / Level I		
<b>metastasis First line prescription</b>	最近改版	<b>2018/01/05</b>		
	處方內容	Taxol 80 mg/m	QWKLY	No 17 / Level I
		Docetaxel 75mg/m <sup>2</sup>	Q3WKLY	No 17 / Level I
		EC or LC (Epirubicin 75mg/m <sup>2</sup> or Lipo-Dox 35mg/m <sup>2</sup> + cyclophosphamide 500mg/m <sup>2</sup> )	6___ cycles	No 16 / Level I
		Bevacizumab + Paclitaxel	(D1 & D8& D15)	No 19 / Level I
		Faslodex 250mg	Q28D	No 17 / Level I
		Goserelin 3.6mg	Q28D	No 17 / Level I
		Leuprorelin 3.75mg	Q28D	No 17 / Level I
		Letrozole 2.5 mg	1tab (QD) x14 day	No 17 / Level I
		Tamoxifen 10mg	1tab (BID) x28 day	No 17 / Level I
		Perjeta 420~840mg +Herceptin 6~8 mg/kg + Docetaxel 75mg/m <sup>2</sup>	Q3WKLY ( 刪 2018/9/7 )	No 17 / Level I
		Kadcyla 3.6 mg/kg	Q3WKLY	No 17 / Level I
Herceptin 2~8 mg/kg	QWKLY or Q3WKLY	No 17 / Level I		

### Reference for Neoadjuvant / Adjuvant Chemotherapy Regimens

1. Citron ML, Berry DA, Cirrincione, et al: Randomized Trial of Dose-Dense Versus Conventionally Scheduled and Sequential Versus Concurrent Combination Chemotherapy as Postoperative Adjuvant Treatment of Node-Positive Primary Breast cancer: First Report of Intergroup Trial

- C9741/Cancer and Leukemia Group B Trial 9741. *J Clin Oncol* 2003;21:1431-1439.
2. Fisher B, Brown AM, Dimitrov NV, et al: Two months of doxorubicin-cyclophosphamide with and without interval reinduction therapy compared with 6 months of cyclophosphamide, methotrexate, and fluorouracil in positive-node breast cancer patients with tamoxifen-nonresponsive tumors: results from the National Surgical Adjuvant Breast and Bowel Project B-15. *J Clin Oncol* 1990;8:1483-1496.
  3. Martin, Pienkowski T, Mackey J, et al: Adjuvant Docetaxel for Node-Positive Breast Cancer. *N Engl J Med* 2005; 352:22.
  4. Buzdar AU, Kau SW, Smith TL, Hortobagyi GN. Ten-year results of FAC adjuvant chemotherapy trial in breast cancer. *Am J Clin Oncol* 1989;12:123-128.
  5. Levine MN, Bramwell VH, Pritchard KI, et al: Randomized trial of intensive cyclophosphamide, epirubicin, and fluorouracil chemotherapy compared with cyclophosphamide, methotrexate, and fluorouracil in premenopausal women with node-positive breast cancer. National Cancer Institute of Canada Clinical Trials Group. *J Clin Oncol* 1998;16:2651-8.
  6. Goldhirsch A, Colleoni M, Coates AS, et al: Adding adjuvant CMF chemotherapy to either radiotherapy or tamoxifen: Are all CMFs alike? The International Breast Cancer Study Group (IBCSG). *Ann Oncol* 1998;9:489-93.
  7. Sparano JA, Wang M, Martino S, et al: Weekly paclitaxel in the adjuvant treatment of breast cancer. *N Eng J Med* 2008;258:1663-1671.
  8. Piccart MJ, Di Leo A, Beauduin M, et al: Phase III trial comparing two dose levels of epirubicin combined with cyclophosphamide with cyclophosphamide, methotrexate, and fluorouracil in node-positive breast cancer. *J Clin Oncol* 2001;19:3103-3110.
  9. Roche H, Fumoleau P, Spielmann M, et al: Sequential adjuvant epirubicin-based and docetaxel chemotherapy for node-positive breast cancer patients: The FNCLCC PACS 001 trial. *J Clin Oncol* 2006;24:5664-5671.
  10. Martin M, Rodriguez-Lescure A, Ruiz A, et al: Randomized phase 3 trial of fluorouracil, epirubicin, and cyclophosphamide alone or followed by Paclitaxel for early breast cancer. *J Natl Cancer Inst* 2008;100:805-814.
  11. Romond EH, Perez EZ, Bryant J, et al: Trastuzumab plus adjuvant Chemotherapy for operable HER2-positive breast cancer. *N Engl J Med* 2005;353:1673-1684.
  12. Dang C, Fornier M, Sugarman S, et al: The Safety of Dose-Dense Doxorubicin and Cyclophosphamide Followed by Paclitaxel With Trastuzumab in HER-2/*neu* Overexpressed/Amplified Breast Cancer. *J Clin Oncol*.2008;26(8):1216-22.
  13. Joensuu H, Kellokumpu-Lehtinen P-L, Bono P, et al: Adjuvant docetaxel or vinorelbine with or without trastuzumab for breast cancer. *N Engl J Med* 2006;354:809-20.
  14. Buzdar A, Ibrahim N, Francis D, et al: Significantly higher pathologic complete remission rate after neoadjuvant therapy with trastuzumab, paclitaxel, and epirubicin chemotherapy: Results of a randomized trial in human epidermal growth factor receptor 2-positive operable breast cancer. *J Clin Oncol* 2005;23:3676-3685.

15. Slamon D, Eiermann W, Robert N, et al: Adjuvant Trastuzumab in HER2-Positive Breast Cancer. *N Engl J Med* 2011;365:1273-1283.
16. Rayson D, Suter T.M, Jackisch C, et al: Cardiac Safety of Adjuvant Pegylated Liposomal Doxorubicin With Concurrent Trastuzumab: A Randomized Phase II Trial *Annals of Oncology* 2012;23:1780-1788.
17. **NCCN clinical practice Guidelines in oncology (NCCN Guidelines) version 4. 2018**
18. Cortes J<sup>1</sup>, O'Shaughnessy J, Loesch D, Blum JL, Vahdat LT, Petrakova K, Chollet P, Manikas A, Diéras V, Delozier T, Vladimirov V, Cardoso F, Koh H, Bougnoux P, Dutcus CE, Seegobin S, Mir D, Meneses N, Wanders J, Twelves C; EMBRACE (Eisai Metastatic Breast Cancer Study Assessing Physician's Choice Versus E7389) investigators: Eribulin monotherapy versus treatment of physician's choice in patients with metastatic breast cancer (EMBRACE): a phase 3 open-label randomised study. *Lancet*. 2011 Mar 12;377(9769):914-23. doi: 10.1016/S0140-6736(11)60070-6. Epub 2011 Mar 2.
19. Kathy Miller, M.D., Molin Wang, Ph.D., Julie Gralow, M.D., Maura Dickler, M.D., Melody Cobleigh, M.D., Edith A. Perez, M.D., Tamara Shenkier, M.D., David Cella, Ph.D., and Nancy E. Davidson, M.D.; Paclitaxel plus Bevacizumab versus Paclitaxel Alone for Metastatic Breast Cancer *N Engl J Med* 2007; 357:2666-2676 December 27, 2007 DOI: 10.1056/NEJMoa072113
20. Richard S. Finn, M.D., Miguel Martin, M.D., Hope S. Rugo, M.D., Stephen Jones, M.D., Seock Ah Im, M.D., Ph.D., Karen Gelmon, M.D., Nadia Harbeck, M.D., Ph.D., Oleg N. Lipatov, M.D., Janice M. Walshe, M.D., Stacy Moulder, M.D., Eric Gauthier, Pharm.D., Ph.D., Dongrui R. Lu, M.Sc., Sophia Randolph, M.D., Ph.D., Veronique Dieras, M.D., and Dennis J. Slamon, M.D., Ph.D. Palbociclib and Letrozole in Advanced Breast Cancer *N Engl J Med*. 2016 Nov 17;375(20):1925-1936.
21. Gunter von Minckwitz, MD, et al. Adjuvant Pertuzumab and Trastuzumab in Early HER2-Positive Breast Cancer. *N Engl J Med* 2017;377:122-131
22. Christian Jackisch, et. al. HannaH phase III randomized study: Association of total pathological complete response with event-free survival in HER2-positive early breast Cancer treated with neoadjuvant-adjuvant trastuzumab after 2 years of treatment-free follow up. *European Journal of Cancer*. 2016:62-75

## Reference :

美國癌症聯合委員會(第八版 AJCC)乳腺癌 TNM 分期

American Joint Committee on Cancer (AJCC) 第 8 版

NCCN Chemotherapy Order Templates (NCCN Templates™ )

The National Comprehensive Cancer Network (NCCN)

NCCN Patient Safety Summit

JNCCN - The Journal of the National Comprehensive Cancer Network

NCCN Drugs & Biologics Compendium (NCCN Compendium™)

NCCN Oncology Research Program (ORP)

NCCN Annual Conference: Clinical Practice Guidelines & Quality Cancer Care™

Oken, M.M., Creech, R.H., Tormey, D.C., Horton, J., Davis, T.E., McFadden, E.T., Carbone, P.P.: Toxicity And Response Criteria Of The Eastern Cooperative Oncology Group. *Am J Clin Oncol* 5:649-655, 1982.

衛生福利部國民健康署「癌症篩檢與診療測量指標」公告版 102 年 12 月修訂

PLOS ONE, December 2013, Volume 8 (12), e81765

Ann Surg Oncol (2013) 20:3169–3174

Cancer. 2013 Jul 1;119(13):2366-74. doi: 10.1002/cncr.28085. Epub 2013 Apr 10.

Annals of Oncology 25 (Supplement 1): i3, 2014

J Clin Oncol. 2011 Jul 20;29(21):2852-8. doi: 10.1200/JCO.2010.33.4714. Epub 2011 Jun 13.