

屏東榮民總醫院

乳癌診療原則

2023 年 12 月 19 日第一版

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。

制訂指引

- 本共識依下列參考資料制訂版本
 - NCCN Clinical Practical Guidelines in Oncology™
Breast Cancer (**Version 4. 2023**)

《停藥機制》

- Progression: image ,tumor marker
- SAE:: severe side effect

會議討論

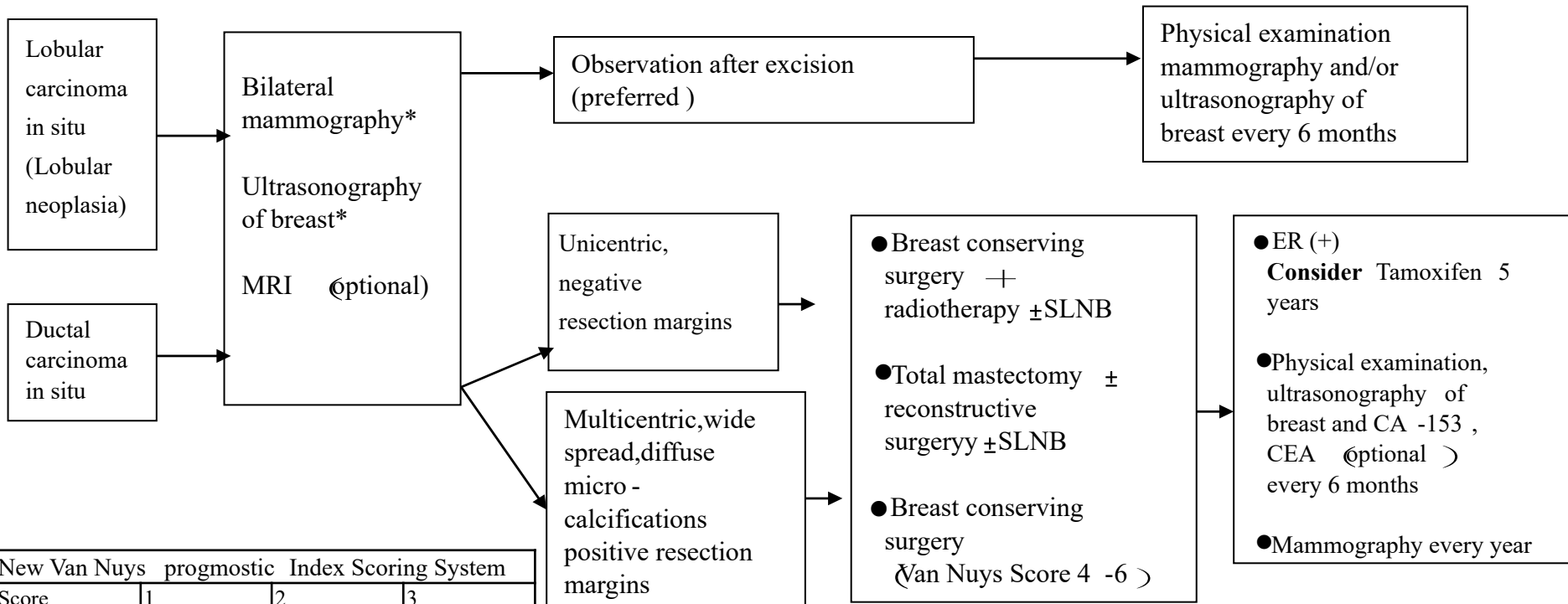
本次會議：2023/12/19

本共識討論：

第一版

年齡>70 歲,cN0,pT1,ER(+)with adjuvant endocrine therapy→可以考慮不加 RT

Breast Cancer



* 與期別相關之主要檢查

New Van Nuys prognostic Index Scoring System			
Score	1	2	3
Size	≤16	16	≥16
Margin width	≥1	1	<1
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

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DIAGNOSIS

WORK-UP

PRIMARY TREATMENT

ADJUVANT TREATMENT

FOLLOW-UP

Clinical Stage I
T1N0M0

Chest X-ray*
Bilateral mammography*
Breast sono*
Liver sono or CT* (in 4 months)
Whole body bone scan (optional)
Pathology review (如腫瘤已切除)

Clinical Stage II
T0N1M0
T1N1M0
T2N0M0
T2N1M0
T3N0M0

Criteria of sentinel node biopsy :
early breast cancer and clinically lymph node negative

Clinical LN (-)
•Breast conserving surgery + SLNB + R/T
•Simple mastectomy + SLNB ± reconstruction
•Modified radical Mastectomy ± reconstruction

Clinical LN (+)
•Breast conserving surgery + ALND + R/T
•Modified radical Mastectomy ± reconstruction (+/-R/T)

Systemic treatment

If SLNB(+)

axillary lymph node dissection

BCS:If tumor < 3cm, consider SLNB only then R/T

LN (-)
* ER positive
hormone therapy ± chemotherapy

- 1) unfavorable histology
- 2) tumor > 2cm
- 3) ki-67 > 14%
- 4) age < 40y/o

* ER negative : **chemotherapy**
(Exclude T1a)

LN (+)
* ER positive:
Chemotherapy+hormone therapy

* ER negative : **chemotherapy**
※更年期後婦女，LN(+)≤3顆，ER(+) 可以使用 Hormal therapy 即可

pNI $\begin{cases} \rightarrow \text{TNBC} \\ \rightarrow \text{non TNBC if age } \leq 50 \end{cases}$ } Strongly consider PMRT

Favorable histology:
medullary, mucinous,
papillary, tubular

Physical examination,
Ultrasonography of breast and liver, Chest x-ray, CA 15-3 every 3~6 months for 2 years, then every 6~12 months for 2 years then every 12 months.
Mammography every year

Post-mastectomy radiotherapy: see page 7

Her-2/neu + (IHC 3+ or FISH+)
Herceptin x for 1 year (optional)

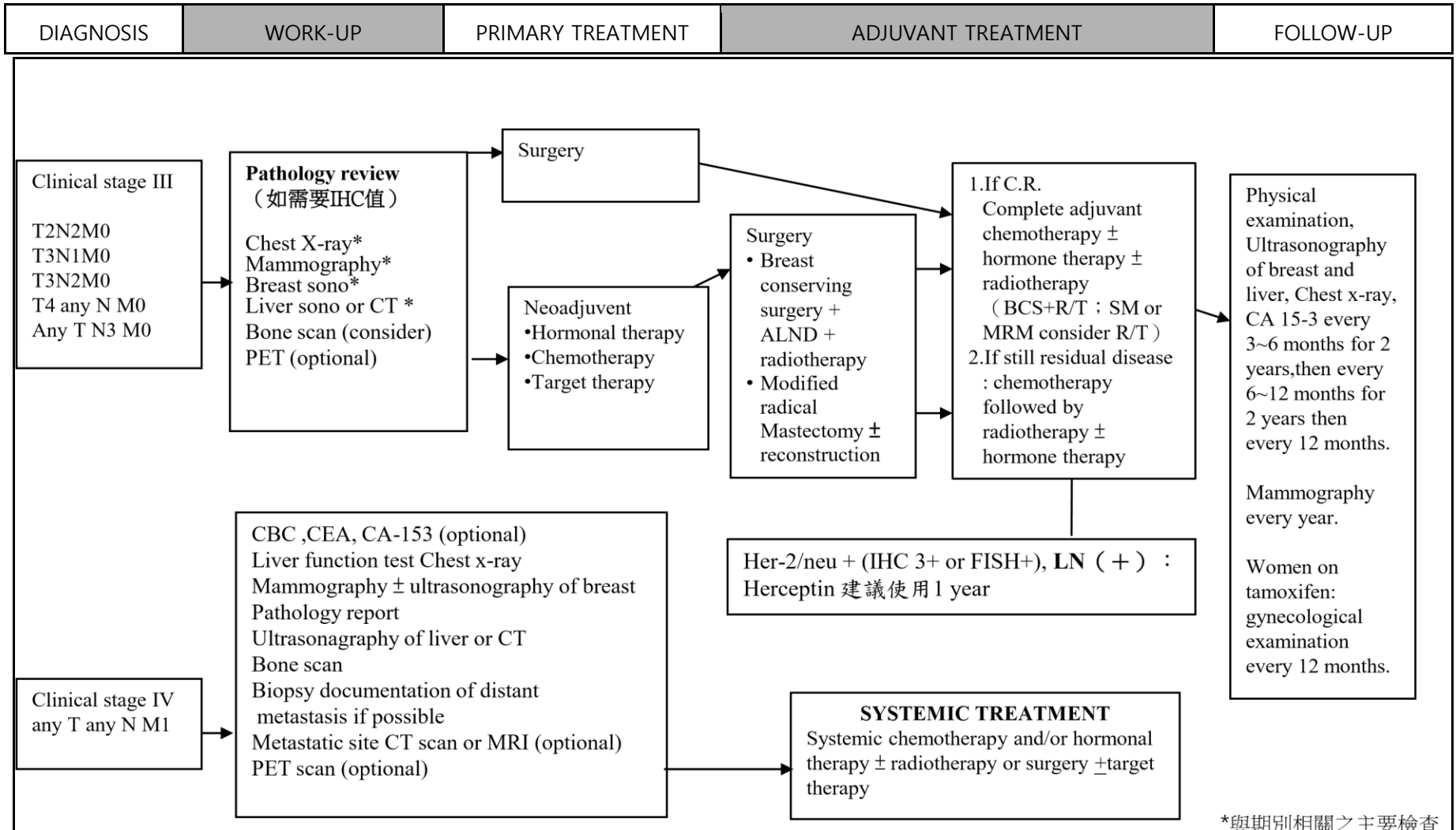
* 與期別相關之主要檢查

年齡>70歲或 ECOG 功能狀態評分 ≥ 2分，可考慮不做化療

年齡>70歲,cN0,pT1,ER(+)with adjuvant endocrine therapy→可以考慮不加 RT

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*與期別相關之主要檢查

年齡>70 歲或 ECOG 功能狀態評分 ≥ 2 分，可考慮不做化療、放射治療

年齡>70 歲,cN0,pT1,ER(+)/with adjuvant endocrine therapy→可以考慮不加 RT

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RECURRENCE WORK-UP	STATUS	SALVAGE TREATMENT
<p>Biopsy documentation of first recurrence if possible IHC study of the tumor if ER/PR status unknown Whole body bone scan (optional) Chest x-ray CT scan of chest for locoregional recurrence (optional) Ultrasonography of liver CT scan or MRI of symptomatic areas (optional) Mammography PET scan(optional)</p>	<p>Locoregional recurrence alone</p> <ul style="list-style-type: none"> Post breast-conserving surgery alone Post breast-conserving surgery + radiotherapy Post mastectomy Post mastectomy + radiotherapy 	<ul style="list-style-type: none"> Salvage mastectomy + systemic therapy ± radiotherapy Salvage mastectomy + systemic therapy Surgical resection if possible + radiotherapy + systemic therapy Surgical excision if possible + systemic therapy ± radiotherapy
	<p>Systemic recurrence</p> <ul style="list-style-type: none"> ER/PR negative or symptomatic visceral metastases ER/PR positive with bone/soft tissue and asymptomatic visceral metastases Isolated liver, brain, or lung metastasis, (impending) pathologic fracture, spinal cord compression, and pericardial effusion Multiple brain metastasis, impending pathologic fracture, spinal cord compression, severe bone pain Pleural effusion, pericardial effusion, and leptomeningeal metastases 	<ul style="list-style-type: none"> Chemotherapy until progressive disease Supportive care only for patients who fail to respond 3 sequential regimens(optional) Hormone therapy Hormone unresponsive: chemotherapy Indications for surgery Indications for palliative radiotherapy Indications for regional treatment

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INDICATIONS FOR POST-MASTECTOMY RADIOTHERAPY

1. skin involvement (skin nodule, ulceration, dorms lymphatic involvement)
2. Chest wall involvement
3. positive axillary lymph nodes 4, lymph nodes positive 1-3 (Strongly consider*)
4. positive or close surgical margin
5. tumor ≥ 5 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 7)

*乳房切除術(modified radical mastectomy)後之放射治療：

1. T3N+, T4 或腋下淋巴結被癌細胞侵犯超過四顆(含)以上者
2. 手術範圍邊緣仍被癌細胞侵犯者
3. 腋下淋巴結被癌細胞侵犯一至三顆者，應與醫師討論是否需輔助性放射治療。年齡小於 50 歲、血管淋巴侵犯或三陰性患者，強烈建議接受輔助性放射治療
4. 若手術前接受過化學治療者應以化學治療前的疾病狀態及術後病理來考慮是否需輔助性放射治療。若為病理顯示腫瘤完全消失(pCR)，可考慮不需術後放射治療。
5. T3N0, 手術界邊陽性或小於 1mm，建議照射胸廓，是否加上局部淋巴區則依臨床判斷。
6. 如果病情需要施以術後放射治療與化學治療，通常以化學治療為先。

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 cm
No axillary irradiation if axillary clearance is adequate

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

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, Ki-67

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

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住院放置人工血管術前一天篩選具心臟毒性用藥／評估 CRS 分數

會診心臟內科醫師

後續追蹤

➤Cardiotoxicity Risk Score(CRS)

Medication-related risk	Example	心臟功能評估項目：	
High (risk score 4)	Anthracyclines; trastuzumab; cyclophosphamide; 5-fluorouracil		• Trastuzumab 治療中，每 3 個月追蹤滿一年。
Intermediate (risk score 2)	Pertuzumab; vinblastine; capecitabine; ponatinib		
Low (risk score 1)	Bevacizumab; imatinib	•Echo	
Rare (risk score 0)	Carboplatin; fludarabine; paclitaxel; rituximab	•NT-proBNP High sensitivity Troponin-I	Epirubicin 療程結束後每 6 個月追蹤，滿 2 年。

➤使用以下藥物，必須於首次治療前評估心臟功能：

- Trastuzumab
- Pertuzumab
- TDM-1
- Lapatinib

➤使用以下藥物，評估以下危險因子，大於 5 分者必須於首次治療前評估心臟功能：

- Epirubicin

Patient risk factors (1 point per item)

- Cardiomyopathy or heart failure
- Coronary artery disease or equivalent (including peripheral artery disease)
- Hypertension
- Diabetes mellitus
- Prior or concurrent anthracyclines
- Prior or concurrent chest radiation
- Age <15 years or >65years
- Female gender

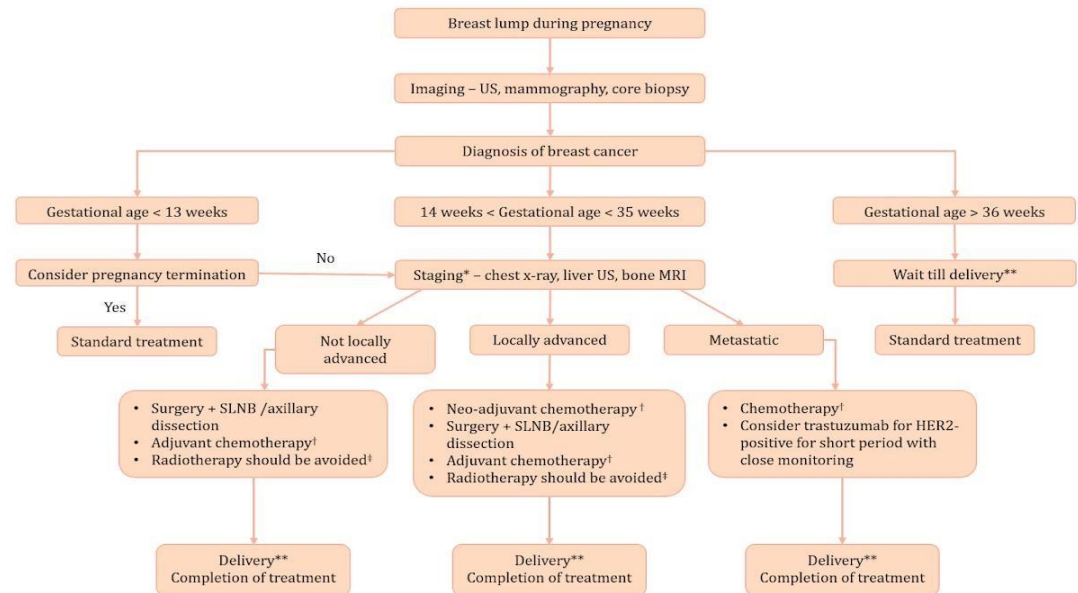
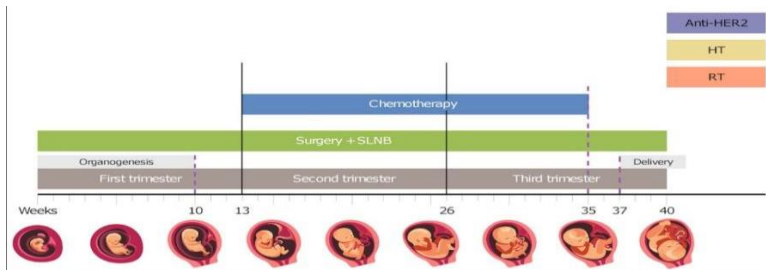
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➤針對骨鬆者：依台灣骨鬆照護規範，50歲以上婦女有骨鬆風險者（如接受化學治療或 Aromatase Inhibiter 荷爾蒙治療），應每一到兩年檢查骨質密度（DXA：dual energy X-ray absorptiometry），鈣攝取量每天 1000 – 1500 mg（胃酸不足，便秘，腎結石病史者使用檸檬酸鈣），並搭配 Vitamin D3 400 – 800 IU，對於 DXA 檢查 T-score -2.5 以下，建議每日服用 Clodronate(Sinclot)400 – 800 mg，或每週服用 Alendronate (Fosamax)70mg，或每半年皮下注射 Danosumab 60mg(Prolia)，或每半年靜脈注射 Zoledronic acid 5mg，或每半年靜脈注射 Pamidronate 90mg

*針對懷孕者:13 週以前不考慮墮胎即超過 13 週而少於 35 週

1. 早期乳癌患者:進行手術，之後可視病理狀況執行輔助化學治療。
2. 局部晚期乳癌患者:先行術前化學治療，再進行手術，之後執行輔助化學治療。
3. 轉移性乳癌患者:進行化學治療，若 HER2 陽性，可視狀況施打短期 Trastuzumab



* Indicated only when might alter clinical management

** Avoiding iatrogenic preterm delivery is recommended

† Allowed only when gestational age is between 14 and 35 weeks

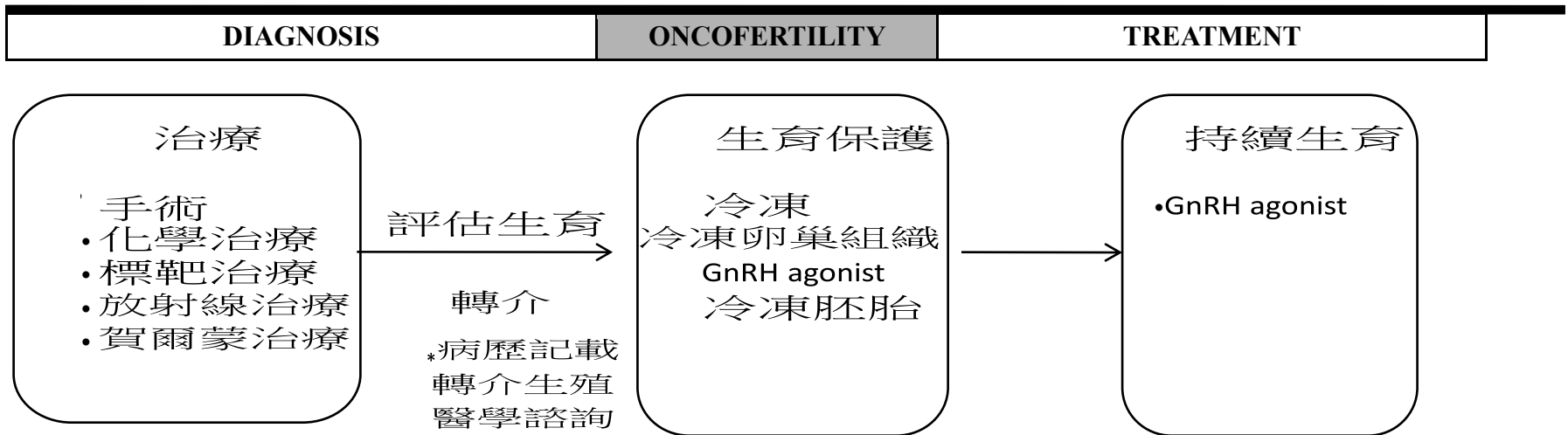
‡ Radiotherapy may be considered in highly selected patients before 20 weeks' gestation

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➤ 生育保護標準作業

依 NCCN guideline 建議：針對停經前婦女，主治醫師應皆要提供其生殖醫學資訊供生育諮詢。



癌別：乳癌 2023 年

最近
改版

2023/12/19

Noadjuvant

處方
內容

Chemotherapy formula	schedule	Reference (No) /strength of evidence
EC or LC (Epirubicin 90mg/m ² or Lipo-Dox 35mg/m ² + cyclophosphamide 500mg/m ²)	4-6 cycles	No 10 / Level I
Taxol 80 mg/m ²	QWKLY	No 20, 21/Level I
Docetaxel 75mg/m ²	Q3WKLY	No 5 / Level I
Trastuzumab 2~8 mg/kg	QWKLY or Q3WKLY	No 8 / Level I
Trastuzumab SC	Q3WKLY	No 15 / Level I
Trastuzumab + Pertuzumab (maintenance)	Q3WKLY	No 14 / Level I
Trastuzumab + Pertuzumab (loading)	Q3WKLY	No 14 / Level I
Bevacizumab	(D1 & D15)	No 12, 39 / Level I
Trastuzumab SC + Pertuzumab (maintenance)	Q3WKLY	No 48 / Level I
Trastuzumab SC + Pertuzumab (loading)	Q3WKLY	No 48 /Level I
Letrozole 2.5 mg	1tab (QD) x14 day	No 36 / Level I
Cisplatin+Etoposide	Q3WKLY	No 58 / Level I
TC (Docetaxel 75mg/m ² + Cyclophosphamide 500mg/m ²)	Q3WKLY	No 23 / Level I
Paclitaxel+Carboplatin	Q3WKLY	No 62 / Level I

Adjuvant	處方 内容	Carboplatin AUC x5mg+ Docetaxel 75mg/m2	Q3WKLY	No 16 / Level I
		Carboplatin AUC 4~6+ 5-FU 1000mg/m2	Q3WKLY	No 42 / Level I
		Cisplatin 50mg/m2	Q3WKLY	No 17 / Level I
		Cisplatin 50mg/m2 + 5-FU 500mg/m2	Q3WKLY	No 40 / Level I
		Gemcitabine 1250mg/m2	Q3WKLY	No 18 / Level I
		Lipo-Dox 50mg/m2	Q3WKLY	No 10, 43 / Level I
		Carboplatin AUC x5mg+ Docetaxel 75mg/m2	Q3WKLY	No 16 / Level I
		Carboplatin AUC 4~6+ 5-FU 1000mg/m2	Q3WKLY	No 42 / Level I
		Cisplatin 50mg/m2	Q3WKLY	No 17 / Level I
		Cisplatin 50mg/m2 + 5-FU 500mg/m2	Q3WKLY	No 40 / Level I
		Gemcitabine 1250mg/m2	Q3WKLY	No 18 / Level I
		Lipo-Dox 50mg/m2	Q3WKLY	No 10, 43 / Level I
		Taxol 80mg/m2 + Cisplatin 50mg/m2	Q3WKLY	No 40 / Level I
		Taxol 80mg/m2	QWKLY	No 20, 21/ Level I
		Taxol 175mg/m2	Q3WKLY	No 21 / Level I
		Docetaxel 60mg/m2 + Cisplatin 50mg/m2	Q3WKLY	No 22 / Level I
		Docetaxel 75mg/m2	Q3WKLY	No 1 / Level I
TC (Docetaxel 75mg/m2 + Cyclophosphamide 500mg/m2)	Q3WKLY	No 23 / Level I		
Vinorelbine 25~30mg/m	D1 or D8	No 24 / Level I		

Adjuvant	處方 内容	Docetaxel 75mg/m ² x1 + Xeloda 2.5tab x14 day	Q3WKLY+14 day	No 25 / Level I
		Afinitor 5mg	2tab QD × 14 day	No26, 27/Level I
		Xeloda 500mg	2tab Bid × 14 day	No 28 / Level I
		Cyclophosphamide	2tab QD × 14 day	No 29 / Level I
		Methotrexate	2tab (BIW) x14 day	No 45 / Level I
		Ufur	3cap (Bid) x14 day	No 44 / Level I
		Vinorelbine 30mg + Vinorelbine 20mg	2cap1+1cap (QWx14 day	No 24 / Level I
		Bleomycin 50mg	once	No 55 / Level I
		FEC (5-FU500mg/m ² , Epirubicin75mg/m, cyclophosphamide 500mg/m ²)	2-6 cycles	No 6 / Level I
		FLC (5-FU 500mg/m ² , Lipo-Dox 35g/m ² , cyclophosphamide 500mg/m ²)	2-6 cycles	No 43 / Level I
		CMF(Cyclophosphamide2tab/m ² + Methotrexate g/m ² + Fluorouracil 500~600mg/m ²)	6-12 cycles	No 2 / Level I
		ECorLC(Epirubicin90mg/m ² orLipo-Dox35mg/m ² + cyclophosphamide 500mg/m ²)	6 cycles	No 10 / Level I
		TEC (Docetaxel 75mg/m ² + Epirubicin 75mg/m ² + cyclophosphamide 500mg/m ²)	6 cycles	No 1 / Level I
		Mitoxantrone 10mg/m ² + Leucovorine 170mg/m ² + 5-FU 600mg/m ² + Cisplatin 60mg/m ²	Q3WKLY	No 54 / Level I
		IAIC for Epicin 60mg	once	No 47 / Level I
		Lynparza (Olaparib) 150mg	2 tabs BID	No 52 / Level I
		Nerlynx (Neratinib) 40mg	6 tabs QD	No 51 / Level I
		Ixempra(Ixabepilone)	Q3WKLY	No 53 / Level I
		TALZENNA (Talazoparib) 0.25mg	4 caps QD	No 56 / Level I
		TS-1	14 day	No 57 / Level I
Cisplatin+Etoposide	Q3WKLY	No 58 / Level I		

Hormone therapy	最近改版	2023/12/19		
	處方內容	Faslodex 250mg	Q28D	No 30 / Level I
		Goserelin 3.6mg	Q28D	No 31,32 / Level I
		Leuprorelin 3.75mg	Q28D	No 33 / Level I
		Anastrozole 1mg	1tab (QD) x28 day	No 34 / Level I
		Exemestane 25mg	1tab (QD) x28 day	No 35 / Level I
		Letrozole 2.5 mg	1tab (QD) x28day	No 36 / Level I
		Tamoxifen 10mg	1tab (BID) x28 day	No 34, 36 / Level I
		Toremifene	1tab (QD) x28 day	No 46 / Level I
Target therapy	最近改版	2023/12/19		
		Kadcyla 3.6 mg/kg	Q3WKLY	No 37 / Level I
		Tykerb 250mg + Xeloda 500mg	5 tab (QD) +2tab (Bid) x14 day	No 38 / Level I
		Tykerb 250mg	5 tab (QD) x14 day	No 38 / Level I
		Trastuzumab 2~8 mg/kg	QWKLY or Q3WKLY	No 8, 9/ Level I
		Trastuzumab SC	Q3WKLY	No 9 / Level I
		Trastuzumab + Pertuzumab (maintenance)	Q3WKLY	No 14 / Level I
		Trastuzumab + Pertuzumab (loading)	Q3WKLY	No 14 / Level I
		Trastuzumab SC + Pertuzumab (maintenance)	Q3WKLY	No 48 / Level I
		Trastuzumab SC + Pertuzumab (loading)	Q3WKLY	No 48 / Level I
		Piqray (Alpelisib) 150mg	2 tab QD	No 64 / Level I
		Palbociclib	1tab (QD) x21 day	No 13 / Level I
		Ribociclib	3cap (QD) x21 day	No 50 / Level I
		Abemaciclib	1tab (BID) x28 day	No 59, 60, 61/ Level I

Metastasis First line prescription	最新 改版	2023/12/19		
	處方 內容	Taxol 80 mg/m	QWKLY	No 21 / Level I
		Docetaxel 75mg/m ²	Q3WKLY	No 5 / Level I
		EC or LC (Epirubicin 90mg/m ² or Lipo-Dox 35mg/m ² + cyclophosphamide 500mg/m ²)	6 cycles	No 10 / Level I
		Faslodex 250mg	Q28D	No 30 / Level I
		Goserelin 3.6mg	Q28D	No 31, 32 / Level I
		Leuprorelin 3.75mg	Q28D	No 33 / Level I
		Letrozole 2.5 mg	1tab (QD) x28 day	No 36 / Level I
		Tamoxifen 10mg	1tab (BID) x28 day	No 34, 36 / Level I
		Bevacizumab	(D1 & D15)	No 12, 39 / Level I
		Kadcyla 3.6 mg/kg	Q3WKLY	No 37 / Level I
		Trastuzumab 2~8 mg/kg	QWKLY or Q3WKLY	No 9 / Level I
		Atezolizumab 840mg	Q2WKLY	No 49 / Level I
		Lynparza (Olaparib) 150mg	2 tabs BID	No 52 / Level I
		Ixempria(Ixabepilone)	Q3WKLY	No 53 / Level I
		TALZENNA (Talazoparib) 0.25mg	4 caps QD	No 56 / Level I
Eribulin:1.4mg/ m ²	on days 1 and 8, 21-day cycle	No 11 / Level I		
Gemcitabine + Carboplatin	on days 1 and 8, 21-day cycle	No 65 / Level I		
Immuno- oncology therapy	最近 改版	2023/12/19		
	處方 內容	Atezolizumab+Abraxane	Q3WKLY	No 63 / Level I
		Pembrolizumab 200mg	Q3WKLY	No 62 / Level I

Reference for Neoadjuvant / Adjuvant Chemotherapy Regimens

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