

# 高雄榮民總醫院

## 子宮內膜癌

### 診療指引

2021年 第一版 2021/02/23

婦癌醫療團隊擬訂

#### 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, Uterine Cancer (**Version 1. 2021**)
  - 子宮內膜癌臨床指引：國家衛生研究院
  - 婦癌研究委員會

# 會議討論

上次會議：2020/02/25

本共識與上一版的差異

上一版	新版
<ol style="list-style-type: none"><li>未建議病理檢體要檢測MMR/MSI相關染色。(p.8)</li><li>未列出建議基因檢測的時機。(p.8)</li><li>Stage II disease經過根除性子宮切除後，若切緣無病灶，可考慮『觀察』。(p.13)</li><li>『不完整分期手術』(流程八 p.15)、『非endometrioid carcinoma子宮內膜癌』(流程十二 p.19)治療流程未更新。</li><li>無生育保留治療流程。(流程九 p.16)</li><li>無局部區域復發疾病的治療流程(流程十一 p.18)。</li><li>針對stage III/IV or 復發的serous carcinoma with HER2 positive · 無 Carboplatin + Paclitaxel + Trastuzumab化療處方。(p.20)</li><li>針對復發/轉移/高風險，無Topotecan alone (1mg/m2) on D1-D5, Q3W化療處方。(p.20)</li><li>針對復發或是遠端轉移的endometrioid carcinoma · 無『Everolimus + Letrozole』此處方。(p.21)</li></ol>	<ol style="list-style-type: none"><li>建議常規在D&amp;C檢體，或是分期手術後的子宮檢體中<b>常規檢測MMR/MSI</b> (p.8)</li><li>在特定條件下建議患者接受基因檢測及遺傳諮詢。(p.8)</li><li><b>3. Stage II disease的後續治療中刪除『觀察』選項</b>。(p.13)</li><li>更新『不完整分期手術』(流程八 p.15)、『非endometrioid carcinoma子宮內膜癌』(流程十二 p.19)治療流程。</li><li>新增生育保留治療流程。(流程九 p.16)</li><li>新增局部區域復發疾病的治療流程(流程十一 p.18)。</li><li>針對<b>stage III/IV or 復發的serous carcinoma with HER2 positive</b> · 加入新的regimen: Carboplatin + Paclitaxel + Trastuzumab。(p.20)</li><li>針對復發/轉移/高風險，新增Topotecan alone (1mg/m2) on D1-D5, Q3W。(p.20)</li><li>針對復發或是遠端轉移的endometrioid carcinoma · 新增『Everolimus + Letrozole』。(p.21)</li></ol>

高雄榮總婦產部 子宮內膜癌臨床治療指引  
2010 New FIGO and TNM staging (AJCC 8<sup>th</sup>)

Primary Tumor (T)		
T	FIGO	T Criteria
TX		Primary tumor cannot be assessed
T0		No evidence of primary tumor
T1	I	Tumor confined to the corpus uteri, including endocervical glandular involvement
T1a	IA	Tumor limited to the endometrium or invading less than half the myometrium
T1b	IB	Tumor invading one half or more of the myometrium
T2	II	Tumor invading the stromal connective tissue of the cervix but not extending beyond the uterus. Does NOT include endocervical glandular involvement.
T3	III	Tumor involving serosa, adnexa, vagina, or parametrium
T3a	IIIA	Tumor involving the serosa 及/或 adnexa (direct extension or metastasis)
T3b	IIIB	Vaginal involvement (direct extension or metastasis) or parametrial involvement
T4	IVA	Tumor invading the bladder mucosa 及/或 bowel mucosa (bulloss edema is not sufficient to classify a tumor as T4)

Regional Lymph Node (N)		
N	FIGO	N Criteria
NX		Regional lymph nodes cannot be assessed
N0		No regional lymph node metastasis
N0 (i+)		Isolated tumor cells in regional lymph node(s) no greater than 0.2 mm
N1	IIIC1	Regional lymph nodes metastasis to pelvic lymph nodes
N1mi	IIIC1	Regional lymph node metastasis (greater than 0.2 mm but not greater than 2.0 mm in diameter) to pelvic lymph nodes
N1a	IIIC1	Regional lymph node metastasis (greater than 2.0 mm in diameter) to pelvic lymph nodes
N2	IIIC2	Regional lymph node metastasis to para-aortic lymph nodes, with or without positive pelvic lymph nodes
N2mi	IIIC2	Regional lymph node metastasis (greater than 0.2 mm but not greater than 2.0 mm in diameter) to para-aortic lymph nodes, with or without positive pelvic lymph nodes
N2a	IIIC2	Regional lymph node metastasis (greater than 2.0 mm in diameter) to para-aortic lymph nodes, with or without positive pelvic lymph nodes

<b>Distant Metastasis (M)</b>		
<b>M</b>	<b>FIGO</b>	<b>M Criteria</b>
M0		No distant metastasis
M1	IVB	Distant metastasis (includes metastasis to inguinal lymph nodes, intraperitoneal disease, lung, liver, or bone). (It excludes metastasis to pelvic or para-aortic lymph nodes, vagina, uterine serosa, or adnexa).

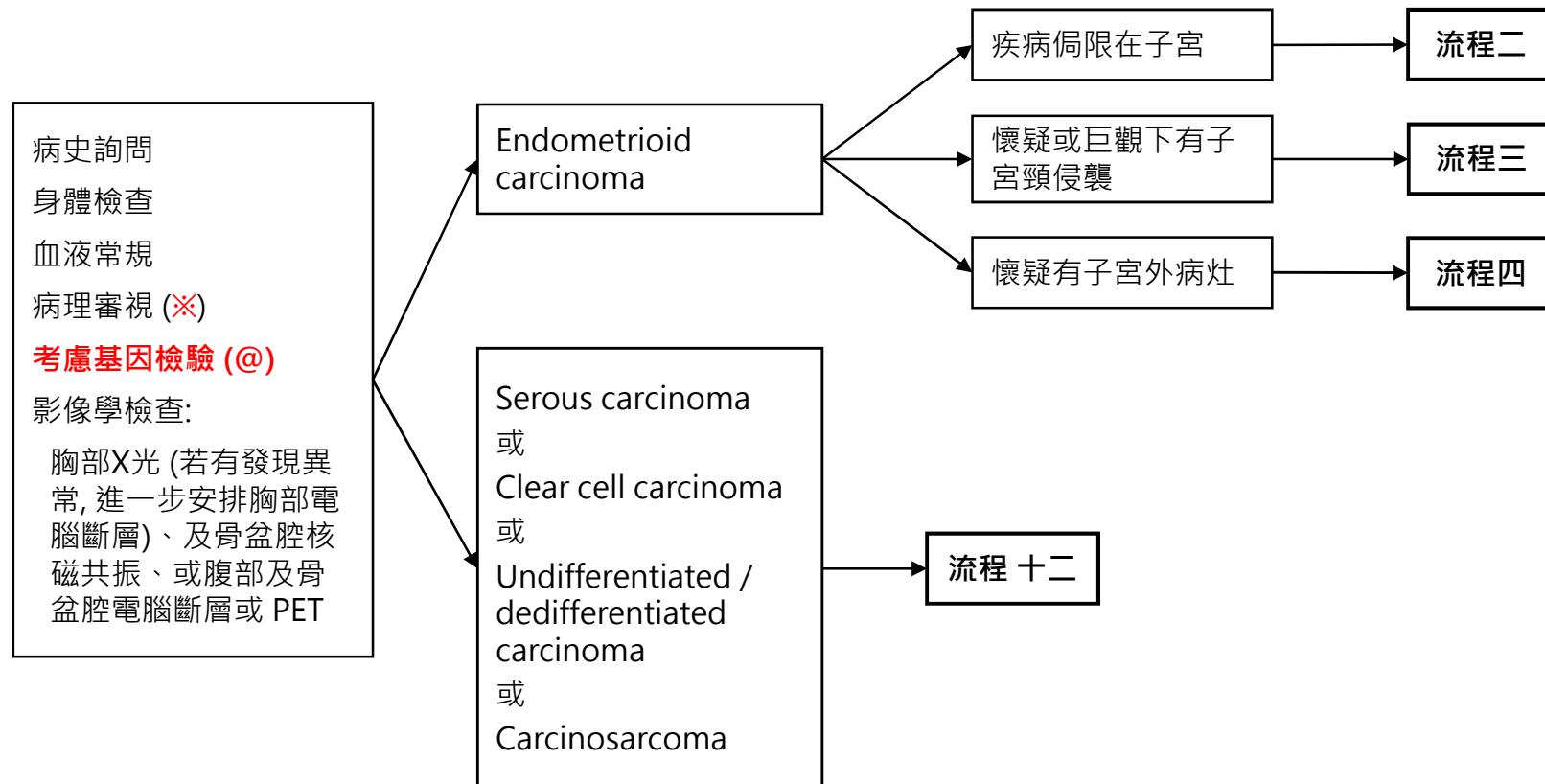
高雄榮總婦產部 子宮內膜癌臨床治療指引  
2010 New FIGO and TNM staging (AJCC 8<sup>th</sup>)

<b>STAGE GROUPS</b>			
<b>T</b>	<b>N</b>	<b>M</b>	<b>stage</b>
T1	N0	M0	I
T1a	N0	M0	IA
T1b	N0	M0	IB
T2	N0	M0	II
T3	N0	M0	III
T3a	N0	M0	IIIA
T3b	N0	M0	IIIB
T1-T3	N1/N1mi/N1a	M0	IIIC1
T1-T3	N2/N2mi/N2a	M0	IIIC2
T4	Any N	M0	IVA
Any T	Any N	M1	IVB

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

初步評估

初步臨床發現



※: 建議在D&C的檢體，或是在最後手術切除的子宮檢體上常規進行MMR protein / MSI 染色檢測

@: 特別是在D&C檢體中發現有MMR proteins deficiency或是有MSI的病人，以及雖然MMR proteins完整/MSI穩定，卻有子宮內膜癌 及/或大腸直腸癌家族史的病人，建議接受基因檢測及諮詢

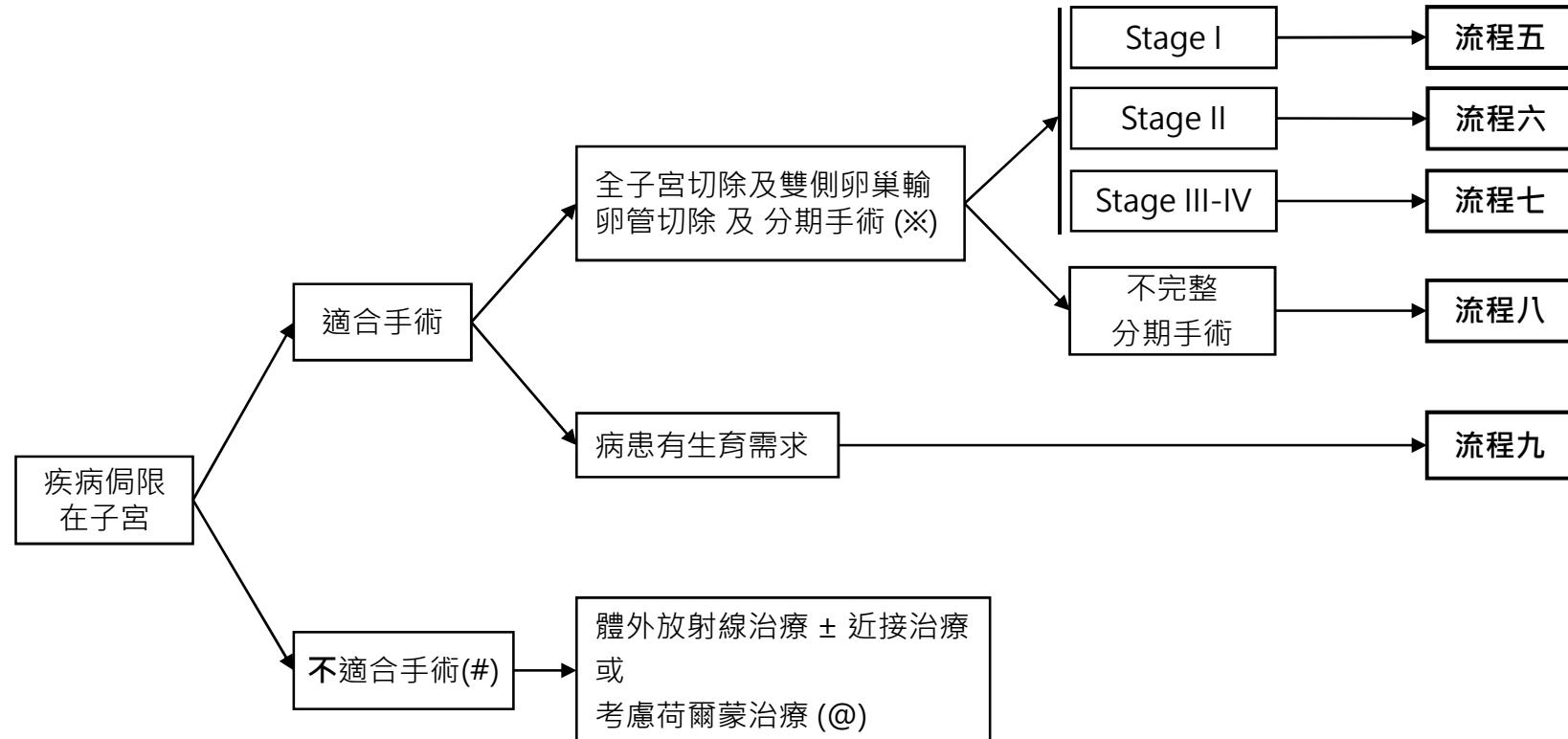
流程一

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

初步臨床發現

術後病理分期

術後輔助治療



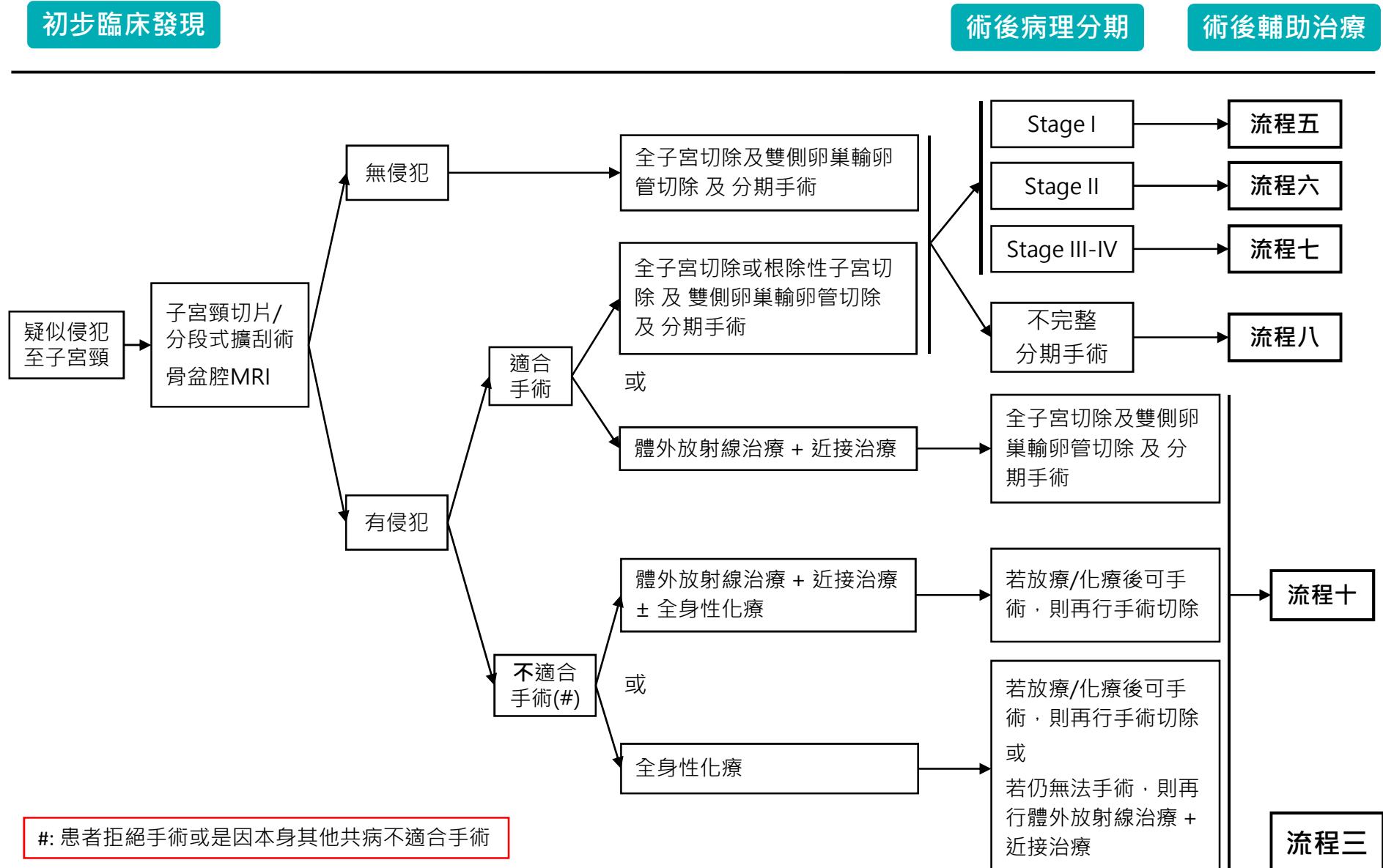
流程二

※: 若執刀醫師及病患病況許可，建議微創手術

#: 患者拒絕手術或是因本身其他共病不適合手術

@: 多用於low-grade endometrioid carcinoma, 且患者的腫瘤體積小或是病灶生長緩慢

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

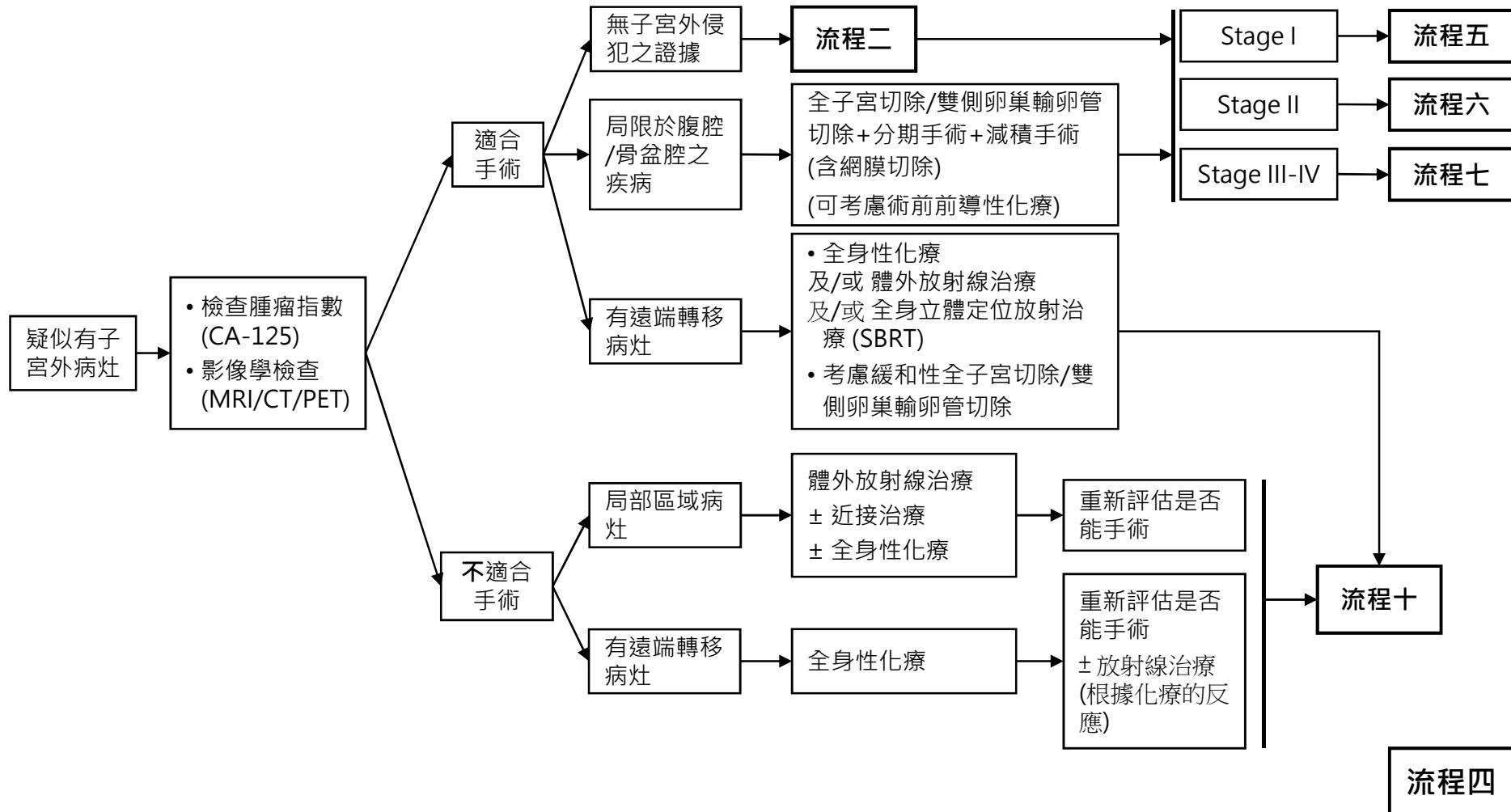


# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

初步臨床發現

初步治療

術後輔助治療



# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

## FIGO stage I 分期手術後輔助治療

FIGO stage	Histologic grade	輔助治療
IA	Gr. 1 / Gr. 2	觀察 (建議) 或 考慮陰道近接治療 · 若LVSI (+) 及/或 age $\geq$ 60 y/o (※)
	Gr.3	陰道近接治療(建議) 或 觀察 (若無子宮侵犯) 或 考慮體外放射治療 (#)
IB	Gr.1	陰道近接治療(若# 則建議) 或 考慮觀察 · 若無其他危險因子 (#, @)
	Gr.2	陰道近接治療(建議) 或 體外放射線治療 (# ) 或 考慮觀察 · 若無其他危險因子 (#, @)
	Gr.3	放射治療 (體外放射治療 ± 近接治療) ± 全身性化療 (§)

※: 若同時LVSI(+)且年紀  $\geq$  60歲則強烈建議陰道近接治療

#:  $\geq$  70 y/o 合併一項risk factors; 50-69 y/o合併兩項risk factors; < 50 y/o 合併三項risk factors 。【Risk factors】  
Gr.2/3, myometrium invasion  $\geq$  1/2, LVSI (+)

@: Age  $\geq$  60y/o, myometrium invasion > 1/2, LVSI (+)

§: Age  $\geq$  60y/o, LVSI (+), myometrium  $\geq$  1/2

流程五

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

## FIGO stage II 分期手術術後輔助治療

FIGO stage    Histologic grade    輔助治療

II

Gr. 1 – Gr. 3

體外放射線治療 (建議)  
及/或 陰道近接治療 (※)  
± 全身性化療

※: 若Gr.1/2, myometrium invasion  $\leq 1/2$ , LVSI (-), and 子宮頸顯微侵犯 (microscopic invasion) 可考慮做近接治療

流程六

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

## FIGO stage III-IV 分期手術術後輔助治療

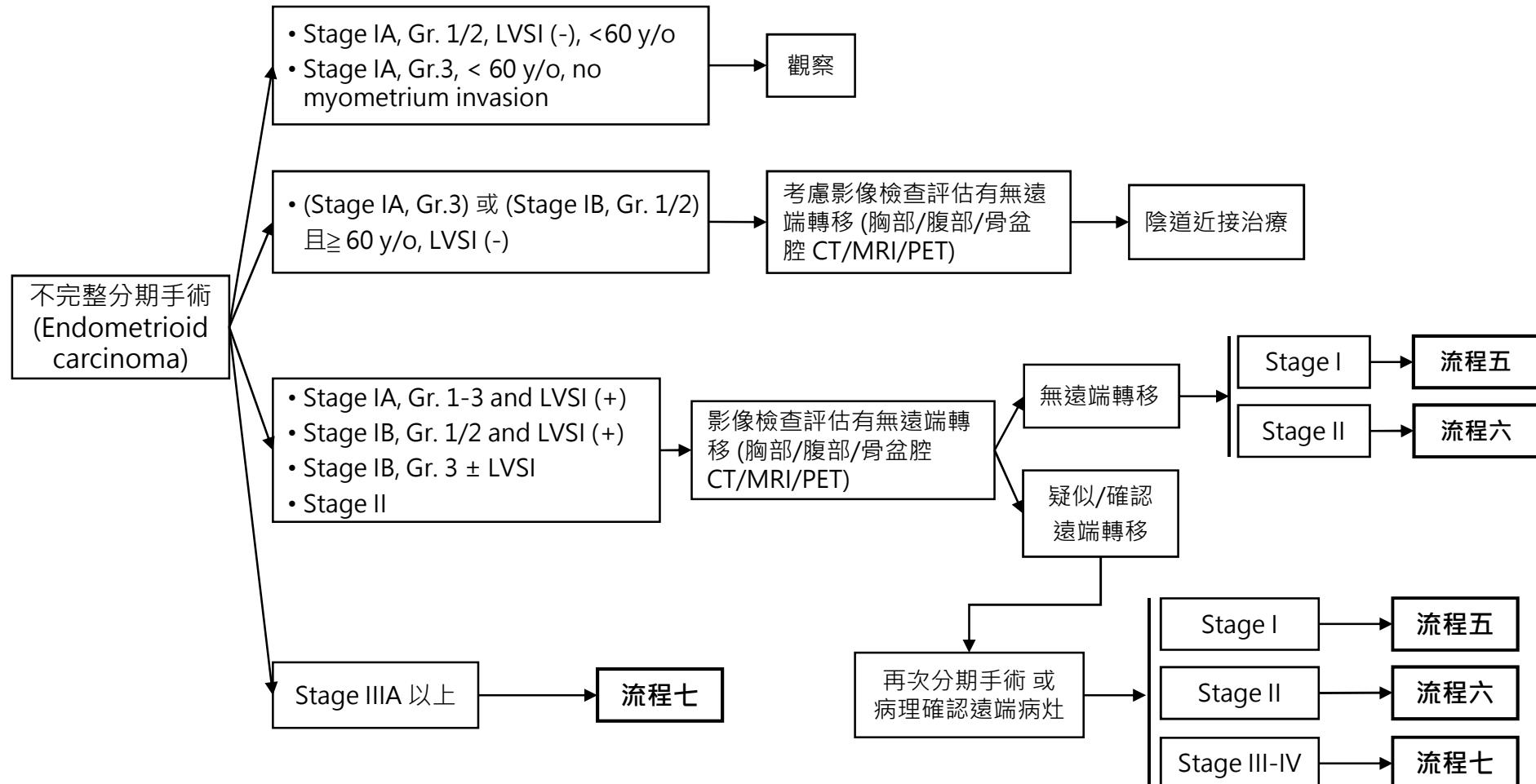
### FIGO stage 輔助治療

全身性化療  
III-IV      ± 體外放射線治療  
                ± 陰道近接治療 (※)

※: 若為stage III則傾向合併治療

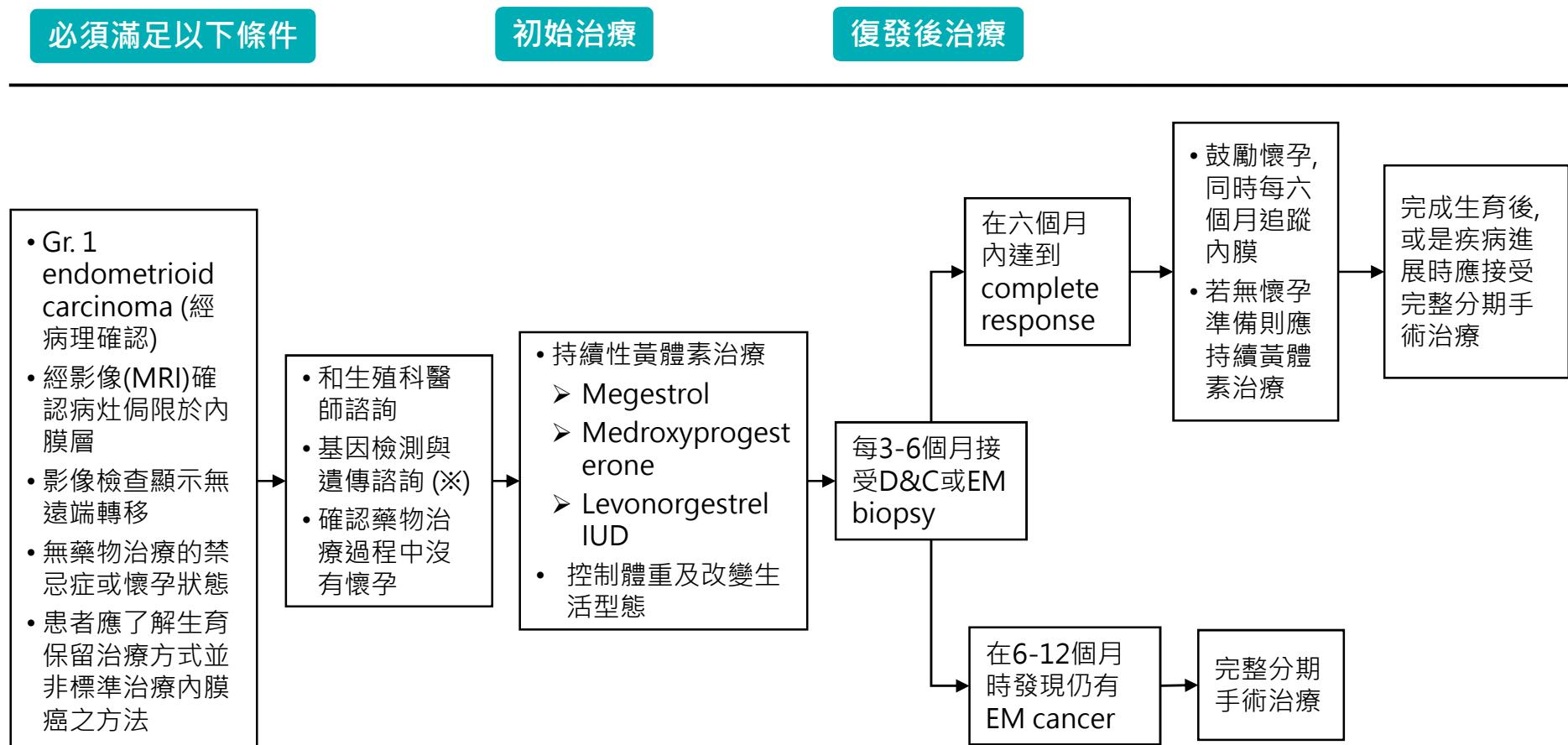
流程七

## 不完整分期手術後輔助治療 (Endometrioid carcinoma)



# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

## 生育保留治療方式

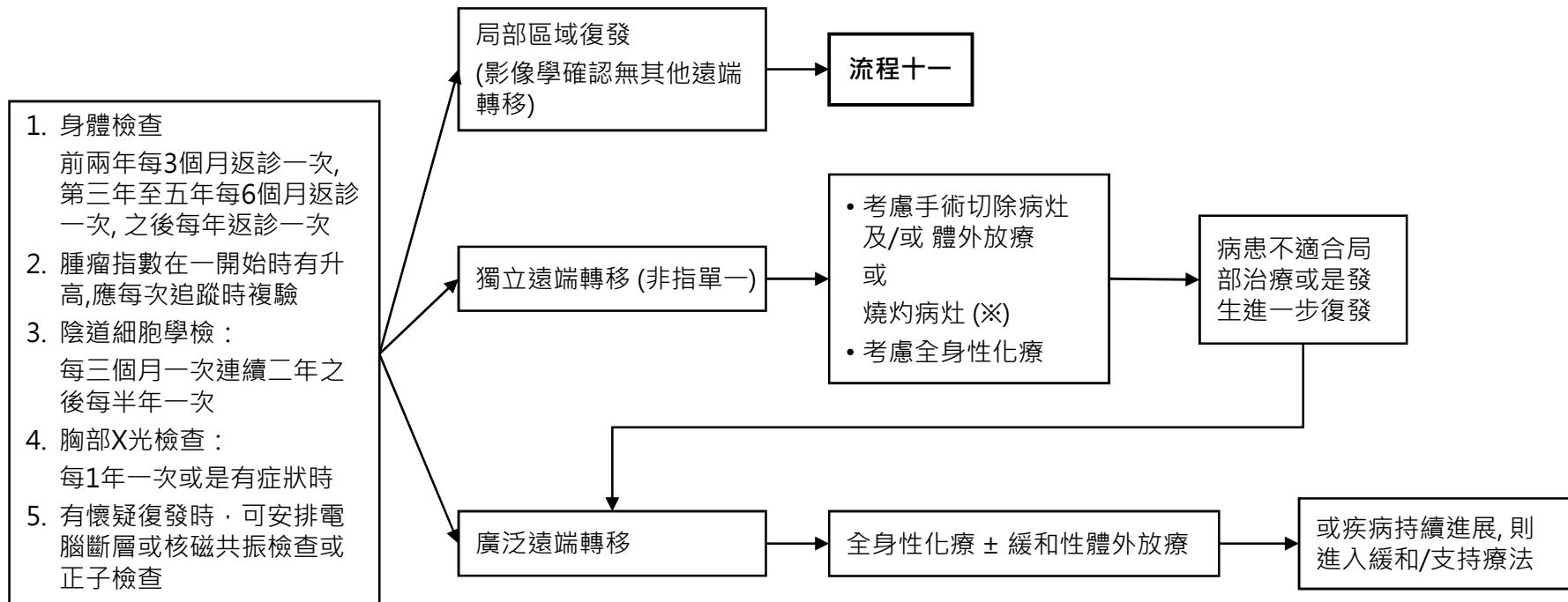


# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

追蹤及監測

臨床表現

復發後治療

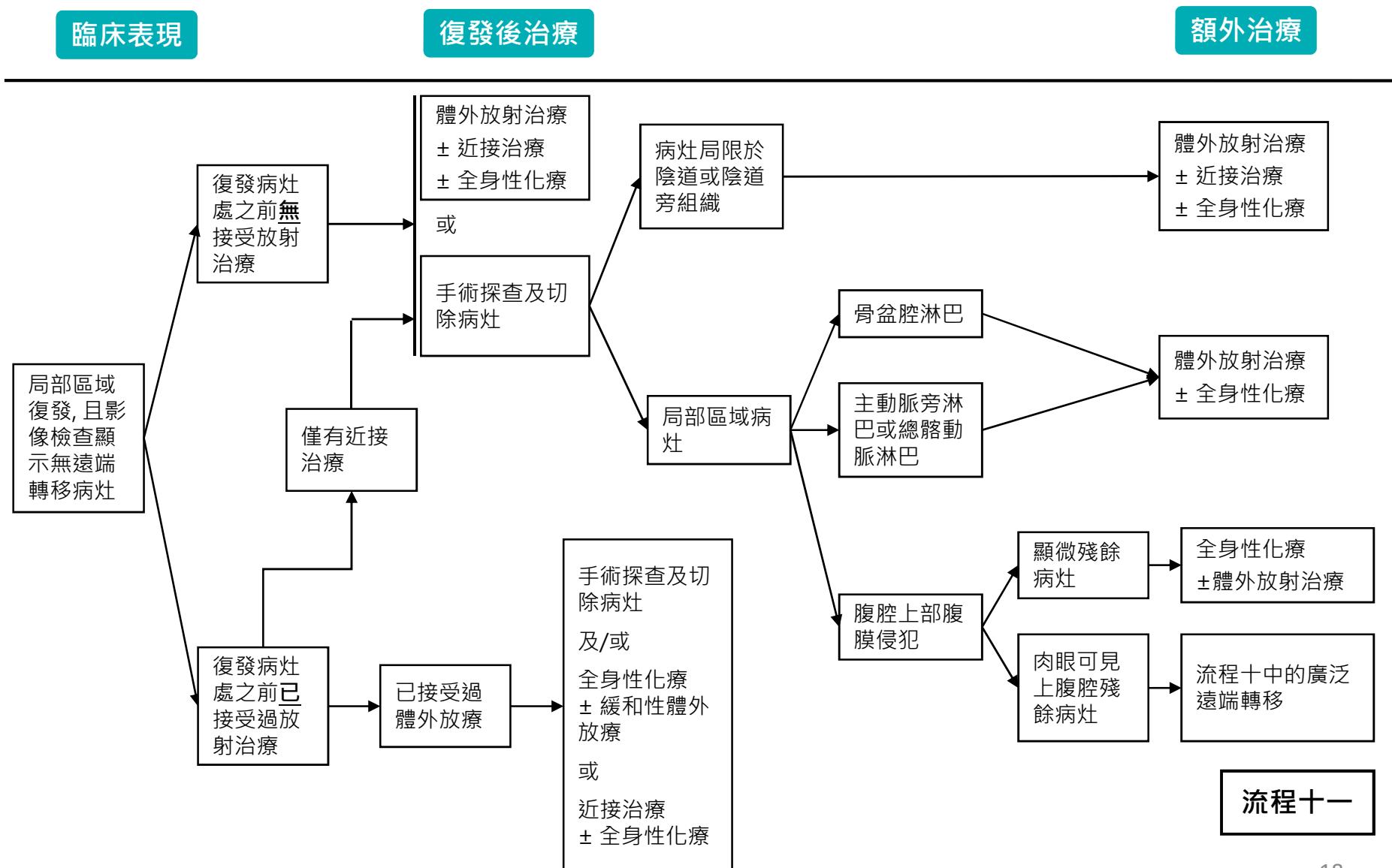


※: 若遠端轉移病灶數為 1-5 個且原始病灶部位已獲得控制時可考慮遠端病灶燒灼術

流程十

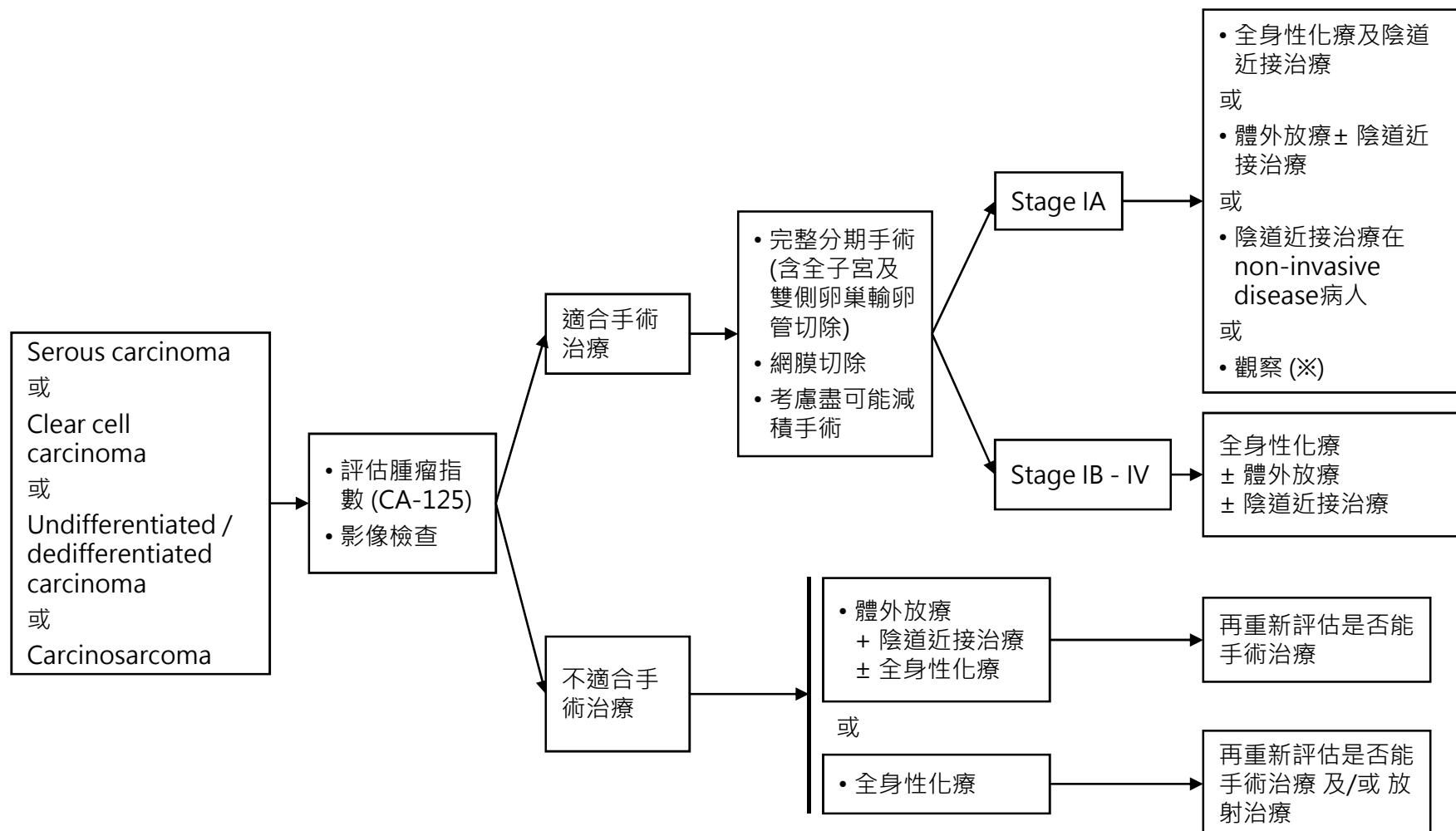
# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引

## 局部區域復發治療方式



流程十一

# 高雄榮總婦癌團隊 子宮內膜癌臨床治療指引



※: 僅限於子宮病理組織為serous or clear cell carcinoma · 且無肌肉層侵犯及無殘餘病灶者

流程十二

# 子宮內膜癌 化療藥物指引

可選用配方	
Taxol (payself) (175 mg/m <sup>2</sup> ) + Cisplatin (50 mg/m <sup>2</sup> ) if CCr > 60ml/min Taxol (payself) (175 mg/m <sup>2</sup> ) + Carboplatin (AUC=5) if CCr < 60ml/min	病灶 僱限於子宮 時建議使用
PEI (Epirubicine 為optional) (8) Epirubicine (50mg/m <sup>2</sup> ) +Cisplatin(50mg/m <sup>2</sup> ) + Ifosfamide+mesna (4gm/m <sup>2</sup> ) if CCr > 60ml/min Epirubicine (50mg/m <sup>2</sup> ) + Carboplatin(AUC=5) + Ifosfamide+mesna (4gm/m <sup>2</sup> ) if CCr < 60ml/min	
Topotecan(0.75mg/m <sup>2</sup> ) + Cisplatin (50mg/m <sup>2</sup> ), if CCr > 60ml/min (30,31) Topotecan(0.75mg/m <sup>2</sup> ) + Carboplatin (AUC=5), if CCr < 60ml/min	
Lipodoxorubicin (payself) (30 mg/m <sup>2</sup> ) + Cisplatin(50mg/m <sup>2</sup> ), if CCr > 60ml/min (32,33) Lipodoxorubicin (payself) (30 mg/m <sup>2</sup> ) + Carboplatin(AUC=5), if CCr > 60ml/min (32,33)	
Lipodoxorubicin (payself) (40 mg/m <sup>2</sup> ), every 28 days (32, 33)	針對 復發/轉移/高風險 疾病時可選用
Weekly topotecan (4mg/m <sup>2</sup> ) (34) <b>Topotecan alone (1mg/m<sup>2</sup>) on D1-D5, every 21 days (Ref Walder S. et al., 2003)</b>	
Taxol (payself) (175 mg/m <sup>2</sup> ) + Carboplatin (AUC=5) + Avastin (5-15mg/kg) (36, 37)	
Avastin (payself) (5~15mg/kg) (29)	
<b>針對stage III/IV or 復發的serous carcinoma with HER2 positive</b> Carboplatin (AUC=5) + Paclitaxel (175 mg/m <sup>2</sup> )+ Trastuzumab (8mg/kg in 1 <sup>st</sup> cycle, then 6mg/kg since 2 <sup>nd</sup> cycle) (38)	
<b>針對有 MSI-H / MMR proteins deficiency 的病患</b> Pembrolizumab (Keytruda) (200mg), Every 21 days (35, 39, 40)	

# 子宮內膜癌 荷爾蒙藥物指引

## 可選用配方

Medroxyprogesterone acetate (Farlutal) 500mg 1# QD (27)

Megestrol 160 mg/QD

Levonorgestrel IUD ( For fertility sparing)

Letrozole 2.5mg 1# QD (28)

Tamoxifen 10mg 1# BID (26)

針對復發或是遠端轉移的endometrioid carcinoma

**Everolimus 10mg QD + Letrozole 2.5mg QD (41)**

## REFERENCES

1. NCCN (national Comprehensive cancer network) Practice guideline in oncology – Uterine neoplasms, Version 1.2021.
2. Benedetti Panici P, Basile S, Maneschi F, Alberto Lissoni A, Signorelli M, Scambia G, et al. Systematic pelvic lymphadenectomy vs. no lymphadenectomy in early-stage endometrial carcinoma: randomized clinical trial. *J Natl Cancer Inst* 2008;100:1707–16.
3. ASTEC study group Kitchener H, Swart AM, Qian Q, Amos C, Parmar MK. Efficacy of systematic pelvic lymphadenectomy in endometrial cancer (MRC ASTEC trial): a randomised study. *Lancet* 2009;373:125–36.
4. Alders J, Abeler V, Kolstad P, Onsrud M. Postoperative external irradiation and prognostic parameters in stage I endometrial carcinoma: clinical and histopathologic study of 540 patients. *Obstet Gynecol* 1980;56:419–27.
5. Creutzberg CL, van Putten WL, Wárlám-Rodenhuis CC, van den Bergh AC, de Winter KA, Koper PC, et al. Outcome of high-risk stage IC, grade 3, compared with stage I endometrial carcinoma patients: the postoperative radiation therapy in endometrial carcinoma trial. *J Clin Oncol* 2004;22:1234–41.
6. Keys HM, Roberts JA, Brunetto VL, Zaino RJ, Spiro NM, Bloss JD, et al. A phase III trial of surgery with or without adjunctive external pelvic radiation therapy in intermediate risk endometrial adenocarcinoma: a Gynecologic Oncology Group study. *Gynecol Oncol* 2004;92:744–51.
7. Lee CM, Szabo A, Shrieve DC, Macdonald OK, Gaffney DK. Frequency and effect of adjuvant radiation therapy among women with stage I endometrial adenocarcinoma. *JAMA* 2006;295:389–97.
8. Randall ME, Filiaci VL, Muss H, Spiro NM, Mannel RS, Fowler J, et al. Randomized phase III trial of whole-abdominal irradiation versus doxorubicin and cisplatin chemotherapy in advanced endometrial carcinoma: a Gynecologic Oncology Group study. *J Clin Oncol* 2006;24:36–44.
9. Susumu N, Sagae S, Udagawa Y, Niwa K, Kuramoto H, Satoh S, et al. Randomized phase III trial of pelvic radiotherapy versus cisplatin-based combined chemotherapy in patients with intermediate- and high-risk endometrial cancer: a Japanese Gynecologic Oncology Group study. *Gynecol Oncol* 2008;108:226–33.
10. Homesley HD, Filiaci V, Gibbons SK, Long HJ, Celli D, Spiro NM, et al. A randomized phase III trial in advanced endometrial carcinoma of surgery and volume directed radiation followed by cisplatin and doxorubicin with or without cisplatin: a Gynecologic Oncology Group study. *Gynecol Oncol* 2009;112:543–52.
11. Kwon JS, Carey MS, Cook EF, Qiu F, Paszat L. Patterns of practice and outcomes in intermediate- and high-risk stage I and II endometrial cancer: a population-based study. *Int J Gynecol Cancer*. 2007;17:433–40.
12. Mariani A, Dowdy SC, Cliby WA, Gostout BS, Jones MB, Wilson TO, et al. Prospective assessment of lymphatic dissemination in endometrial cancer: a paradigm shift in surgical staging. *Gynecol Oncol*. 2008;109:11–8.
13. Orr JW Jr, Taylor PT Jr. Surgical management of endometrial cancer: how much is enough? *Gynecol Oncol*. 2008;109:1–3.
14. Greven K, Winter K, Underhill K, Fontenesci J, Cooper J, Burke T. Final analysis of RTOG 9708: adjuvant postoperative irradiation combined with cisplatin/paclitaxel chemotherapy following surgery for patients with high-risk endometrial cancer. *Gynecol Oncol*. 2006;103:155–9.

## REFERENCES

15. Hogberg T, Rosenberg P, Kristensen G, de Oliveira CF, de Pont Christensen R, Sorbe B, et al. A randomized phase-III study on adjuvant treatment with radiation (RT)/- chemotherapy (CT) in early stage high-risk endometrial cancer (NSGO-EC-9501/EORTC 55991 [abstract 5503]. *J Clin Oncol.* 2007;25:S18.
16. Nout RA, Putter H, Jurgenliemk-Schulz IM, Jobsen JJ, Lutgens LC, van der Steen-Banasik EM, Mens JW, et al. Vaginal brachytherapy versus external beam pelvic radiotherapy for high-intermediate risk endometrial cancer:Results of the randomized PORTEC-2 trial [abstract LBA5503]. *J Clin Oncol.* 2008;26 Suppl.
17. Hamilton CA, Cheung MK, Osann K, Chen L, Teng NN, Longacre TA, et al. Uterine papillary serous and clear cell carcinomas predict for poorer survival compared to grade 3 endometrioid corpus cancers. *Br J Cancer.* 2006; 94:642-6.
18. Frei KA, Kinkel K, Bonél HM, Lu Y, Zaloudek C, Hricak H. Prediction of deep myometrial invasion in patients with endometrial cancer: clinical utility of contrast-enhanced MR imaging—a meta-analysis and Bayesian analysis. *Radiology.* 2000;216:444-9.
19. Manfredi R, Mirk P, Maresca G, Margariti PA, Testa A, Zannoni GF, et al. Local-regional staging of endometrial carcinoma: role of MR imaging in surgical planning. *Radiology.* 2004;231:372-8.
20. Gallion HH, Brunetto VL, Cibull M, Lentz SS, Reid G, Soper JT, et al. Randomized phase III trial of standard timed doxorubicin plus cisplatin versus circadian timed doxorubicin plus cisplatin in stage III and IV or recurrent endometrial carcinoma: a Gynecologic Oncology Group study. *J Clin Oncol.* 2003;21:3808-13.
21. Aapro MS, van Wijk FH, Bolis G, Chevallier B, van der Burg ME, Poveda A, et al. Doxorubicin versus doxorubicin and cisplatin in endometrial carcinoma: definitive results of a randomised study (55872) by the EORTC Gynaecological Cancer Group. *Ann Oncol.* 2003;14:441-8.
22. Thigpen JT, Brady MF, Homesley HD, Malfetano J, DuBeshter B, Burger RA, et al. Phase III trial of doxorubicin with or without cisplatin in advanced endometrial carcinoma: a Gynecologic Oncology Group study. *J Clin Oncol.* 2004;22:3902-8.
23. Fleming GF, Filiaci VL, Bentley RC, Herzog T, Sorosky J, Vaccarello L, et al. Phase III randomized trial of doxorubicin cisplatin versus doxorubicin 24-h paclitaxel filgrastim in endometrial carcinoma: a Gynecologic Oncology Group study. *Ann Oncol.* 2004;15:1173-8.
24. Maggi R, Lissoni A, Spina F, Melpignano M, Zola P, Favalli G, et al. Adjuvant chemotherapy vs radiotherapy in high-risk endometrial carcinoma: results of a randomised trial. *Br J Cancer.* 2006;95:266-71.
25. Kuoppala T, Maenpaa J, Tomas E, Puistola U, Salmi T, Grenman S, et al. Surgically staged high-risk endometrial cancer: randomized study of adjuvant radiotherapy alone vs. sequential chemo-radiotherapy. *Gynecol Oncol.* 2008;110:190-5.
26. Fiorica JV1, Brunetto VL, Hanjani P, Lentz SS, Mannel R, Andersen W; Gynecologic Oncology Group study. Phase II trial of alternating courses of megestrol acetate and tamoxifen in advanced endometrial carcinoma: a Gynecologic Oncology Group study. *Gynecol Oncol.* 2004 Jan;92(1):10-4.
27. Thigpen JT1, Brady MF, Alvarez RD, Adelson MD, Homesley HD, Manetta A, Soper JT, Given FT. Oral medroxyprogesterone acetate in the treatment of advanced or recurrent endometrial carcinoma: a dose-response study by the Gynecologic Oncology Group. *J Clin Oncol.* 1999 Jun;17(6):1736-44.

## REFERENCES

28. Ramirez PT<sup>1</sup>, Schmeler KM, Milam MR, Slomovitz BM, Smith JA, Kavanagh JJ, Deavers M, Levenback C, Coleman RL, Gershenson DM. Efficacy of letrozole in the treatment of recurrent platinum- and taxane-resistant high-grade cancer of the ovary or peritoneum. *Gynecol Oncol.* 2008 Jul;110(1):56-9.
29. Viswanathan AN<sup>1</sup>, Lee H<sup>2</sup>, Berkowitz R<sup>3</sup>, Berlin S<sup>4</sup>, Campos S<sup>4</sup>, Feltmate C<sup>3</sup>, Horowitz N<sup>3</sup>, Muto M<sup>3</sup>, Sadow CA<sup>5</sup>, Matulonis U<sup>4</sup>. A prospective feasibility study of radiation and concurrent bevacizumab for recurrent endometrial cancer. *Gynecol Oncol.* 2014 Jan;132(1):55-60. doi: 10.1016/j.ygyno.2013.10.031. Epub 2013 Nov 4.
30. Hall JB, Higgins RV, Naumann RW et al. Phase II study of topotecan and cisplatin stages III and IV or for recurrent endometrial cancer. *Proc Am Soc Clin Oncol* 2000;19:409a
31. Fiorica JV. Update on the treatment of cervical and uterine carcinoma: focus on topotecan. *Oncologist.* 2002;7 Suppl 5:36-45.
32. Justin M. Julius, PharmD,Janos L.Tanyi, MD,PhD, Graciela M. Nogueras-Gonzalez, MPH,jack L. Watkins, PharmD, Robert L. Coleman, MD, Judith K. Wolf, MD, and Judith A. Smith,PharmD, BCOP, CPHQ, FCCP, FISOPP.Evaluation of pegylated liposomal doxorubicin dose on the adverse drug event profile and outcomes in treatment of recurrent endometrial cancer. *International journal of gynecological cancer.*2013Feb;23(2):348-354.
33. A. du Bois, J. Pfisterer, N. Burchardi, S. Loibl, J. Huober, P. Wimberger, A. Burges, A. Stahle, C. Jackisch, H. Kolbl. Combination therapy with pegylated liposomal doxorubicin and carboplatin in gynecologic malignancies: Arbeitsgemeinschaft gynaekologische onkologie studiengruppe ovariakarzinom and kommission uterus. *Gynecologic Oncology.*2007Oct; 107:518-525.
34. Traina TA<sup>1</sup>, Sabbatini P, Aghajanian C, Dupont J. Weekly topotecan for recurrent endometrial cancer: a case series and review of the literature. *Gynecol Oncol.* 2004 Oct;95(1):235-41.
35. Arend RC<sup>1</sup>, Jones BA<sup>2</sup>, Martinez A<sup>3</sup>, Goodfellow P<sup>4</sup>. Endometrial cancer: Molecular markers and management of advanced stage disease. *Gynecol Oncol.* 2018 Sep;150(3):569-580
36. Peter G. Rose, Shamshad Ali, MA, MSTAT, Mehdi Moslemi-Kebria, and Fiona Simpkins. Paclitaxel, Carboplatin, and Bevacizumab in Advanced and Recurrent Endometrial Carcinoma. *Int J Gynecol Cancer.* 2017 Mar;27(3):452-458
37. Fiona Simpkins, Richard Drake, Pedro F. Escobar, Benjamin Nutter, Nabila Rasool, Peter G. Rose. A phase II trial of paclitaxel, carboplatin, and bevacizumab in advanced and recurrent endometrial carcinoma (EMCA). *Gynecol Oncol.* 2015 Feb;136(2):240-5
38. Amanda N. Fader, Dana M. Roque, Eric Siegel, Natalia Buza, Pei Hui, Osama Abdelghany, Setsuko K. Chambers, Angeles Alvarez Secord, Laura Havrilesky, David M. O'Malley, Floor Backes, Nicole Nevadunsky, Babak Edraki, Dirk Pikaart, William Lowery, Karim S. ElSahwi, Paul Celano, Stefania Bellone, Masoud Azodi, Babak Litkouhi, Elena Ratner, Dan-Arin Silasi, Peter E. Schwartz, and Alessandro D. Santin. Randomized Phase II Trial of Carboplatin-Paclitaxel Versus Carboplatin-Paclitaxel-Trastuzumab in Uterine Serous Carcinomas That Overexpress Human Epidermal Growth Factor Receptor 2/neu. *J Clin Oncol.* 2018 Jul;36(20):2044-2051.

## REFERENCES

39. Mallika Lala, Tommy Ruosi Li, Dinesh P. de Alwis, Vikram Sinha, Kapil Mayawala, Noboru Yamamoto, Lillian L. Siu, Elliot Chartash, Hesham Aboshady, Lokesh Jain. A six-weekly dosing schedule for pembrolizumab in patients with cancer based on evaluation using modelling and simulation.
40. Aurelien Marabelle, Dung T. Le, Paolo A. Ascierto, Anna Maria Di Giacomo, Ana De Jesus-Acosta, Jean-Pierre Delord, Ravit Geva, Maya Gottfried, Nicolas Penel, Aaron R. Hansen, Sarina A. Piha-Paul, Toshihiko Doi, Bo Gao, Hyun Cheol Chung, Jose Lopez-Martin, Yung-Jue Bang, Ronnie Shapira Frommer, Manisha Shah, Razi Ghori, Andrew K. Joe, Scott K. Pruitt, and Luis A. Diaz Jr. Efficacy of Pembrolizumab in Patients With Noncolorectal High Microsatellite Instability/Mismatch Repair–Deficient Cancer: Results From the Phase II KEYNOTE-158 Study. *J Clin Oncology*. 2020 Jan 1;38(1):1-10.
41. Brian M. Slomovitz , Yunyun Jiang , Melinda S. Yates , Pamela T. Soliman , Taren Johnston , Maureen NowakowskiCharles Levenback , Qian Zhang , Kari Ring , Mark F. Munsell , David M. Gershenson , Karen H. Lu , Robert L. Coleman. Phase II Study of Everolimus and Letrozole in Patients With Recurrent Endometrial Carcinoma. *J Clin Oncology*. 2015 Mar 10;33(8):930-6