大腸直腸癌診療指引

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二、討論日期：113 年 11 月 06 日

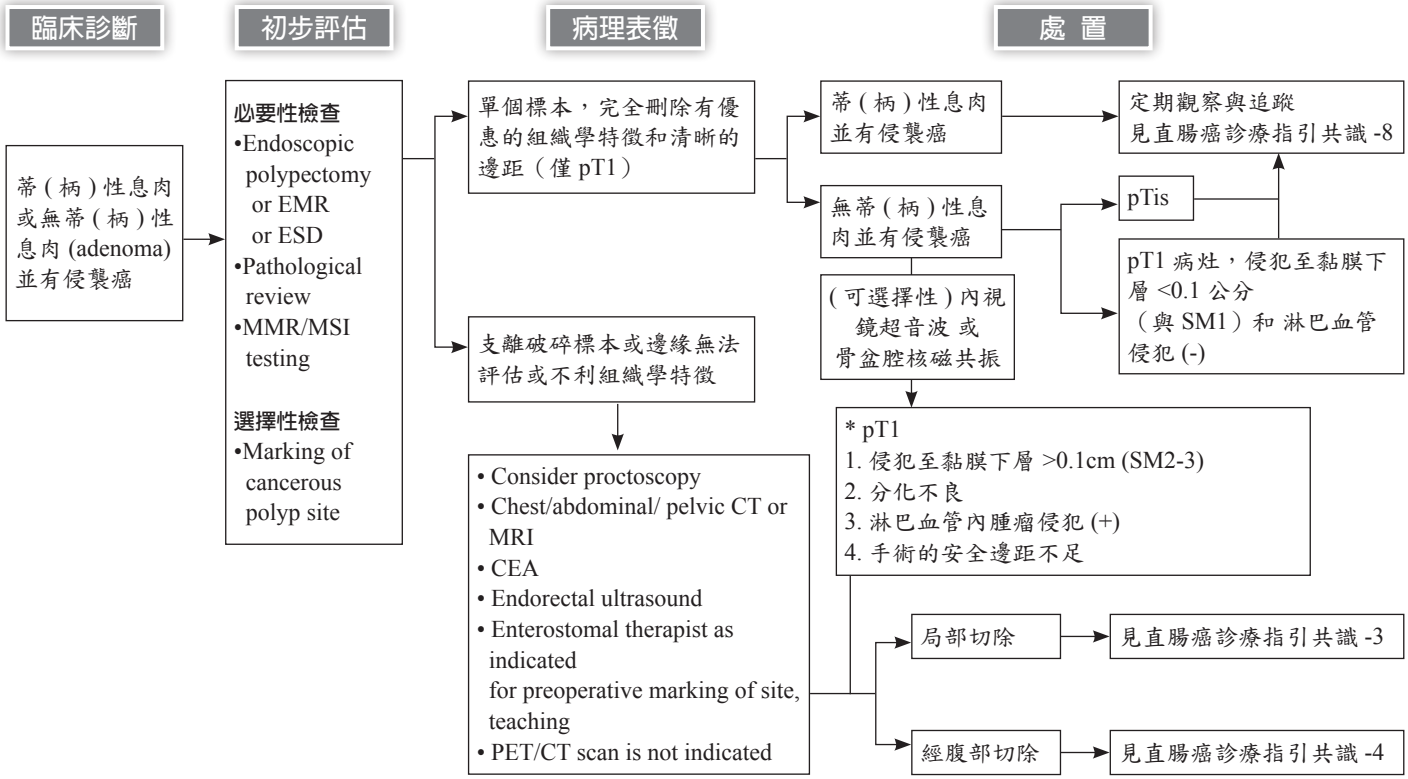
三、校稿人員：黃彥鈞醫師 / 李玉婷個管師

114 年版與上一版差異：

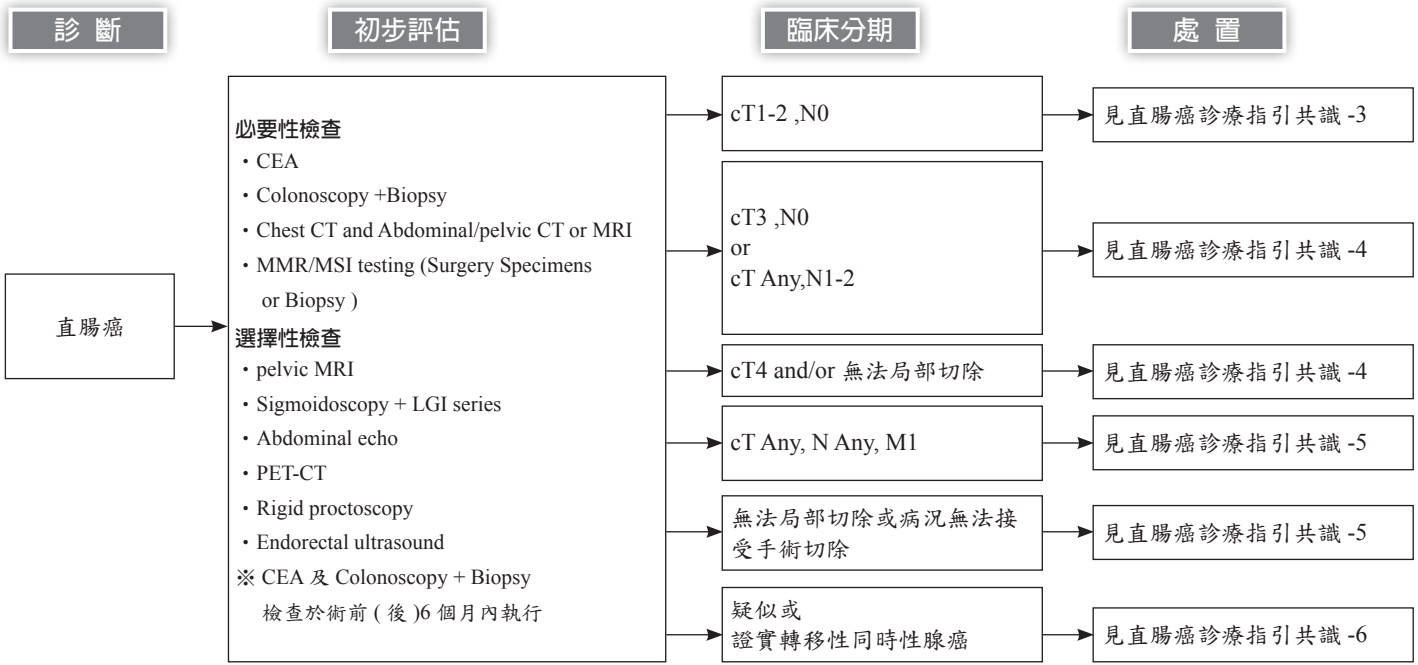
113 年修訂版	114 年修訂版
直腸癌診療指引共識 -3 1. 修訂 外科手術切除	**直腸癌診療指引共識 -1** 在無蒂 (柄) 性息肉並有侵襲癌後新增路徑 可選擇性內視鏡超音波 或骨盆腔核磁共振
直腸癌診療指引共識 -4 1. 修改爲 病人之病況無法接受前導性化療放療 (低風險、高位直腸腫瘤). 2. 修改爲 非 T4 且可保留肛門手術的化療（12-16 週）參見直腸癌診療指引共識 -4 新增風險因子 : dMMR/MSI-H，免疫療法。(可選擇)	**直腸癌診療指引共識 -3** cT1N0 新增路徑 (1)ESD 後接 pT1, N0 沒有任何危險因素 * 定期觀察與追蹤 (2) 若有任何危險因素 * 外科手術切除 新增備註： (1) 侵犯深度 >1mm
直腸癌診療指引共識 -5 修改爲 新輔助化療 * ± 標靶治療 ± 放射線治療 -> 原發腫瘤切除 ± 轉移病灶切除術 ± 短期放射治療	**原直腸癌診療指引共識 -5 變更爲直腸癌診療指引共識 -6** 修改 1. 原發處無法局部切除或病況無法接受切除或轉移處無法切除後新增路徑 前導性化學治療 * ± 標靶治療 ± 放射線治療 ± 免疫治療 (MSI high) 2. 轉移處可切除：僅肝轉移或肺轉移 原發處和轉移處同時切除 後新增完全術前治療 (TNT) (化放療 或放療或化療) 指引 -8

113 年修訂版	114 年修訂版
	直腸癌診療指引共識 -5、6、7 備註修改爲 確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE/POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作爲部分基於組織或血液的下一代測序 [NGSpanel])（可選擇）
	大腸癌診療指引共識 -3 修改： 轉移處可切除：僅肝轉移或肺轉移 在前導性化學治療 *± 標靶治療 (prefer Q8W 評估)，新增免疫療法 (ifMSIhigh)
	大腸癌診療指引共識 -3、4、5、6 備註修改： 確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE/POLD1, RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作爲部分基於組織或血液的下一代測序 [NGSpanel])（可選擇）

《直腸癌診療指引共識 -1》


臨床診斷
初步評估
病理表徵
處 置
蒂 (柄) 性息肉或無蒂 (柄) 性息肉 (adenoma) 並有侵襲癌
必要性檢查
•Endoscopic polypectomy or EMR or ESD
•Pathological review
•MMR/MSI testing
選擇性檢查
•Marking of cancerous polyp site
單個標本，完全刪除有優惠的組織學特徵和清晰的邊距（僅 pT1）
支離破碎標本或邊緣無法評估或不利組織學特徵
• Consider proctoscopy
• Chest/abdominal/ pelvic CT or MRI
• CEA
• Endorectal ultrasound
• Enterostomal therapist as indicated for preoperative marking of site, teaching
• PET/CT scan is not indicated
蒂 (柄) 性息肉並有侵襲癌
無蒂 (柄) 性息肉並有侵襲癌
(可選擇性) 內視鏡超音波 或 骨盆腔核磁共振
* pT1
1. 侵犯至黏膜下層 >0.1cm (SM2-3)
2. 分化不良
3. 淋巴血管內腫瘤侵犯 (+)
4. 手術的安全邊距不足
定期觀察與追蹤 見直腸癌診療指引共識 -8
pTis
pT1 病灶，侵犯至黏膜下層 <0.1 公分 （與 SM1）和 淋巴血管侵犯 (-)
局部切除
見直腸癌診療指引共識 -3
經腹部切除
見直腸癌診療指引共識 -4

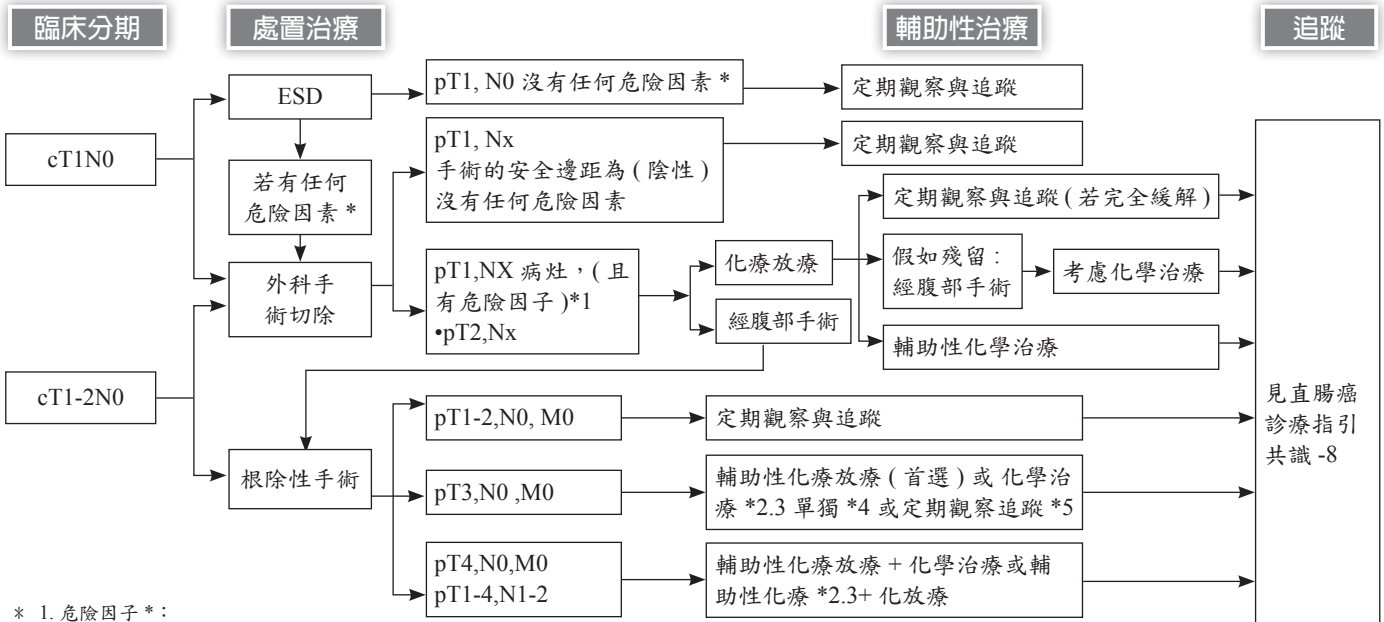
《直腸癌診療指引共識 -2》



直腸癌定義：

距離肛門口 15 公分以內之直腸，依病灶下緣距肛門口的距離分為上 (>11cm) 、中 (> 7cm & ≦ 11 cm) 、下 (≦ 7 cm) 三段。對於中、下段局部廣泛性的癌症，且年齡介於 18 至 75 歲的病人，可接受手術前放射及化學治療，之後再實施根除性手術切除。對於上段直腸癌患者，則建議由臨床醫師視患者狀況而定，可直接進行手術，或採取手術前放射及化學治療，之後再實施根除性手術切除。

《直腸癌診療指引共識 -3》



＊ 1. 危險因子 *：
(1) 侵犯深度 >1mm (2) 分化不良 (Pooly differentiated) (3) 淋巴血管內腫瘤侵犯 or 神經週圍浸潤 (Lymphatic/vascular/perineural invasion)
(4) 淋巴摘除 <12 顆 (<12 lymph nodes examined) (5) 局部穿孔 (Localized Perforation) (6) 完全腸道阻塞 (Bowel obstruction)
(7) 手術的安全邊距不足、無法界定或手術邊距有癌細胞侵犯 (Close, indeterminate or positive margins)
(8) StageIIA,pT3N0M0：(無危險因素) 增加檢查 MSI or MMR (選擇性), 如果 MSI low → 輔助性化學治療。

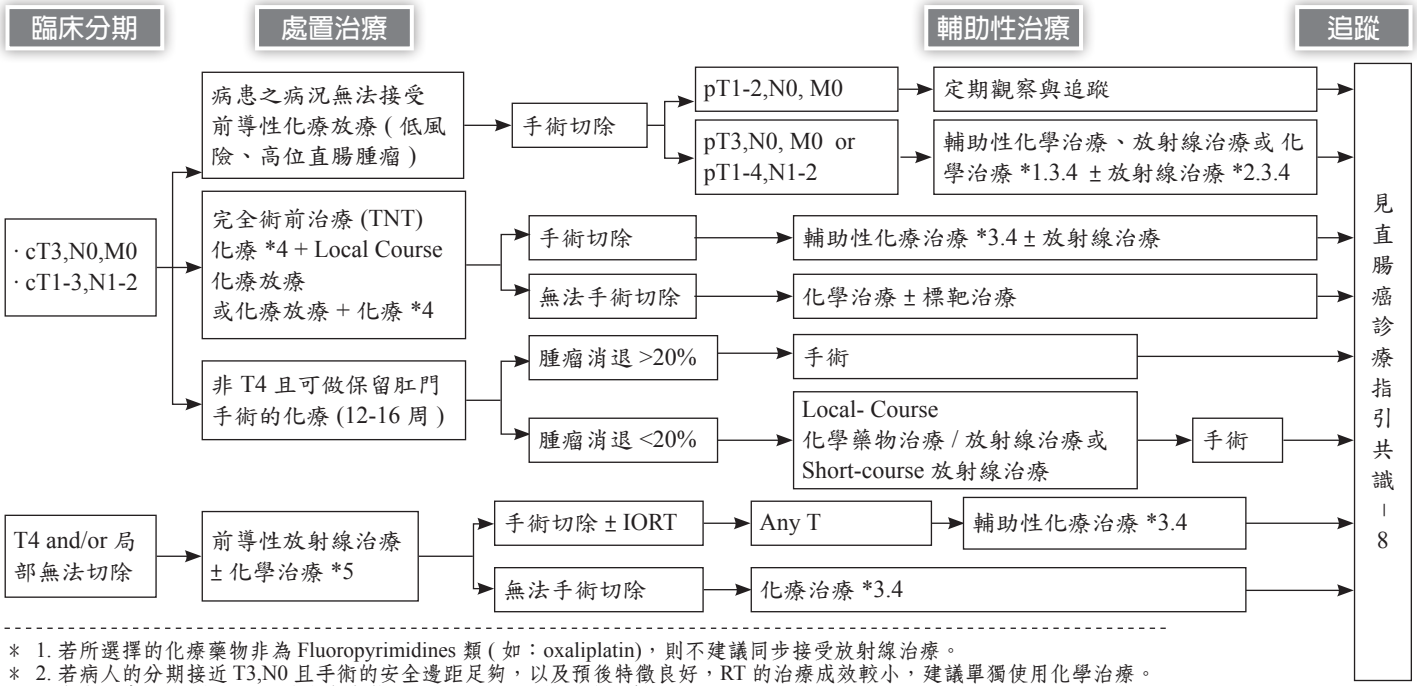
＊ 2. 尚未證實在 70 歲及以上的患者中將 5-FU/leucovorin 加入的益處。

＊ 3. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。

＊ 4. 僅用於 R0 切除。

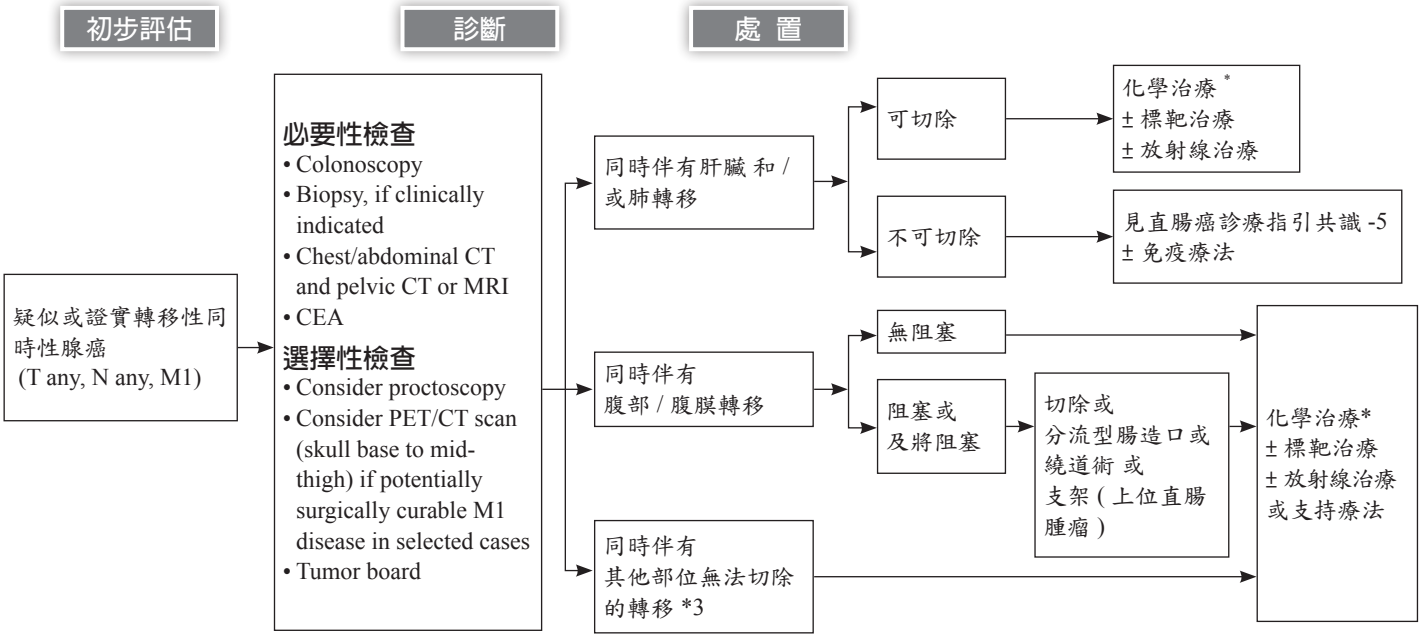
＊ 5. 觀察：僅針對上直腸 , G1/2, LVSI(-), R0 resection & mesorectum invasion < 2 mm 。

《直腸癌診療指引共識 -4》



＊ 1. 若所選擇的化療藥物非為 Fluoropyrimidines 類 (如：oxaliplatin)，則不建議同步接受放射線治療。
＊ 2. 若病人的分期接近 T3,N0 且手術的安全邊距足夠，以及預後特徵良好，RT 的治療成效較小，建議單獨使用化學治療。
＊ 3. 尚未證實在 70 歲及以上的患者中將 5-FU/leucovorin 加入的益處。
＊ 4. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。
＊ 5. CCRT 後和手術維護前 (可選擇) 添加口服化療 5-Flurouracie base
＊ 6. 監測建議包括 DRE、直腸鏡檢查，每 3-4 個月一次，持續 2 年，然後每 6 個月一次，共 5 年。(可選擇)
建議每 6 個月進行一次 MRI 直腸檢查至少 3 年，以監測管腔外局部復發情況。(可選擇)
＊ 7. d-MMR,MSI-H ，免疫療法。(可選擇)

《直腸癌診療指引共識 -5》



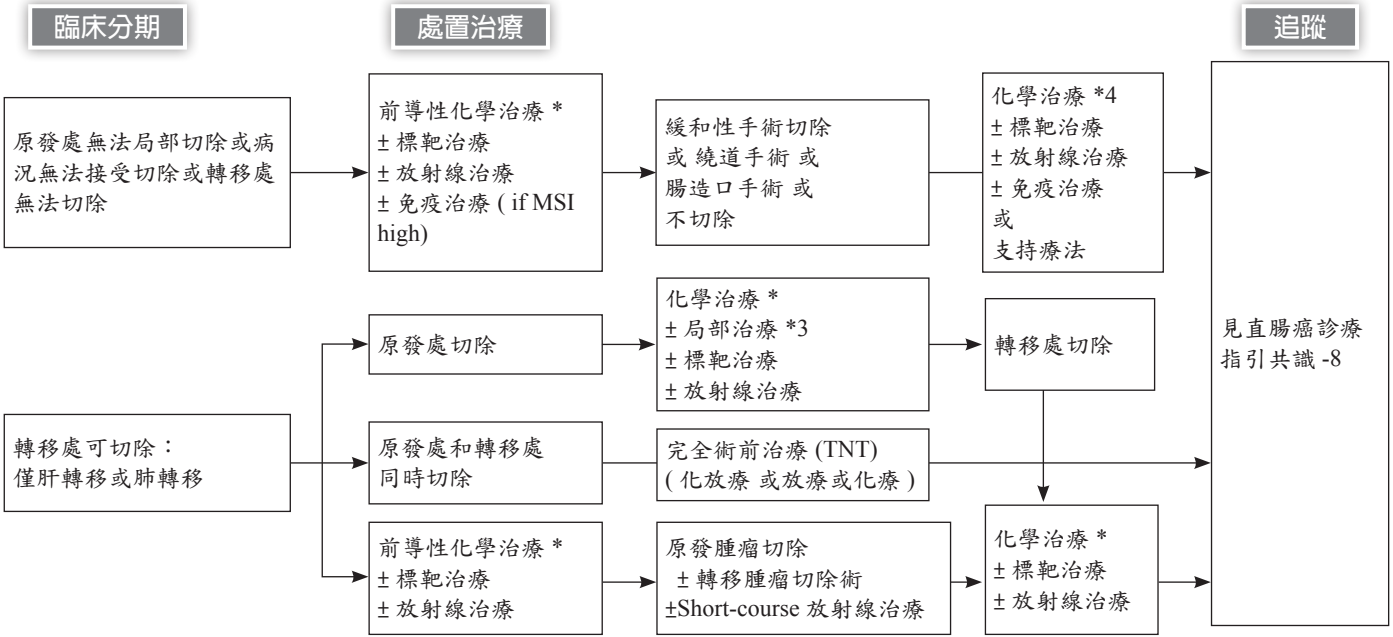
＊ 1.確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel]）（可選）。

＊ 2.對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。

＊ 3.當腫瘤存在阻塞、大出血、穿孔或其他重要症狀的立即風險時 , 可考慮切除腫瘤。

＊ 4.如 d-MMR,MSI-H 可考慮免疫療法。

《直腸癌診療指引共識 -6》



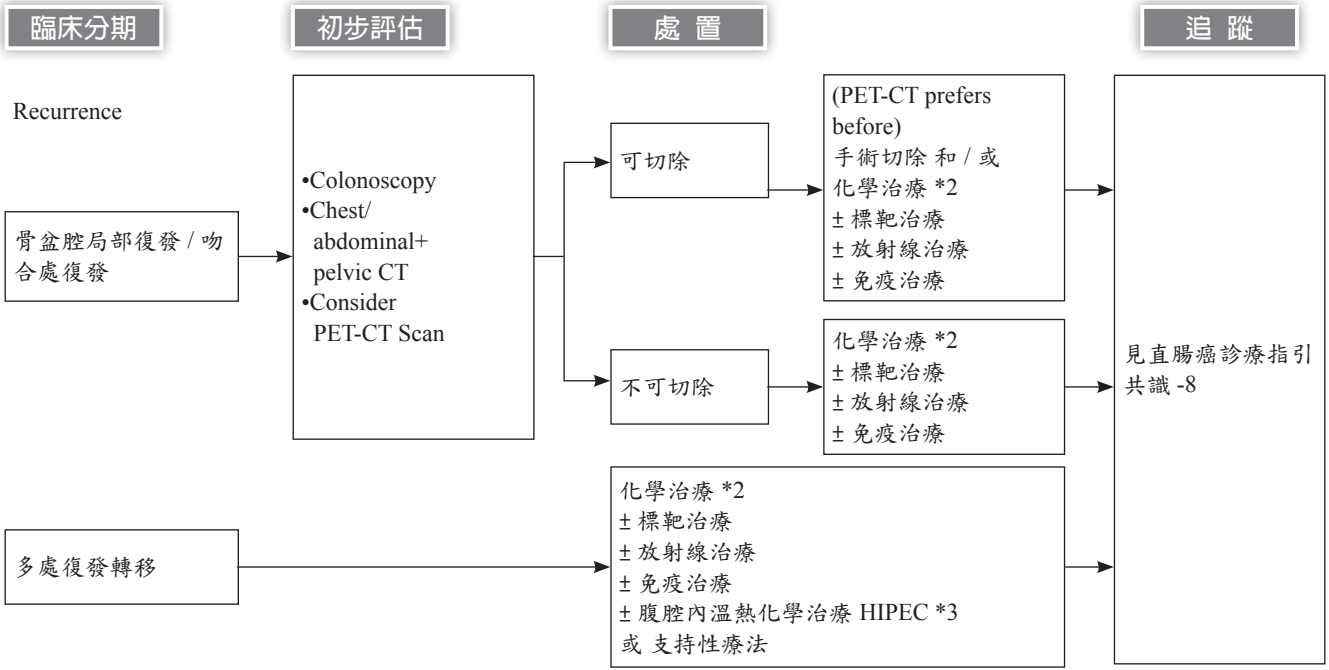
＊ 1. 確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態 (單獨或作為部分基於組織或血液的下一代測序 [NGS panel]) (可選) 。

＊ 2. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。.

＊ 3. 對於非進展性原發性腫瘤，切除術優於局部消融術 (例如，圖像引導消融術或立體定向放射治療 (SBRT)。然而，這些局部技術可考慮用於肝或肺寡轉移。

＊ 4. 肝動脈輸注 ± 全身性化療 5-FU/leucovorin (category 2B) (此選擇適用於有經驗的機構及有經驗的醫師) 。

《直腸癌診療指引共識 -7》



＊ 確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel]）（可選）。

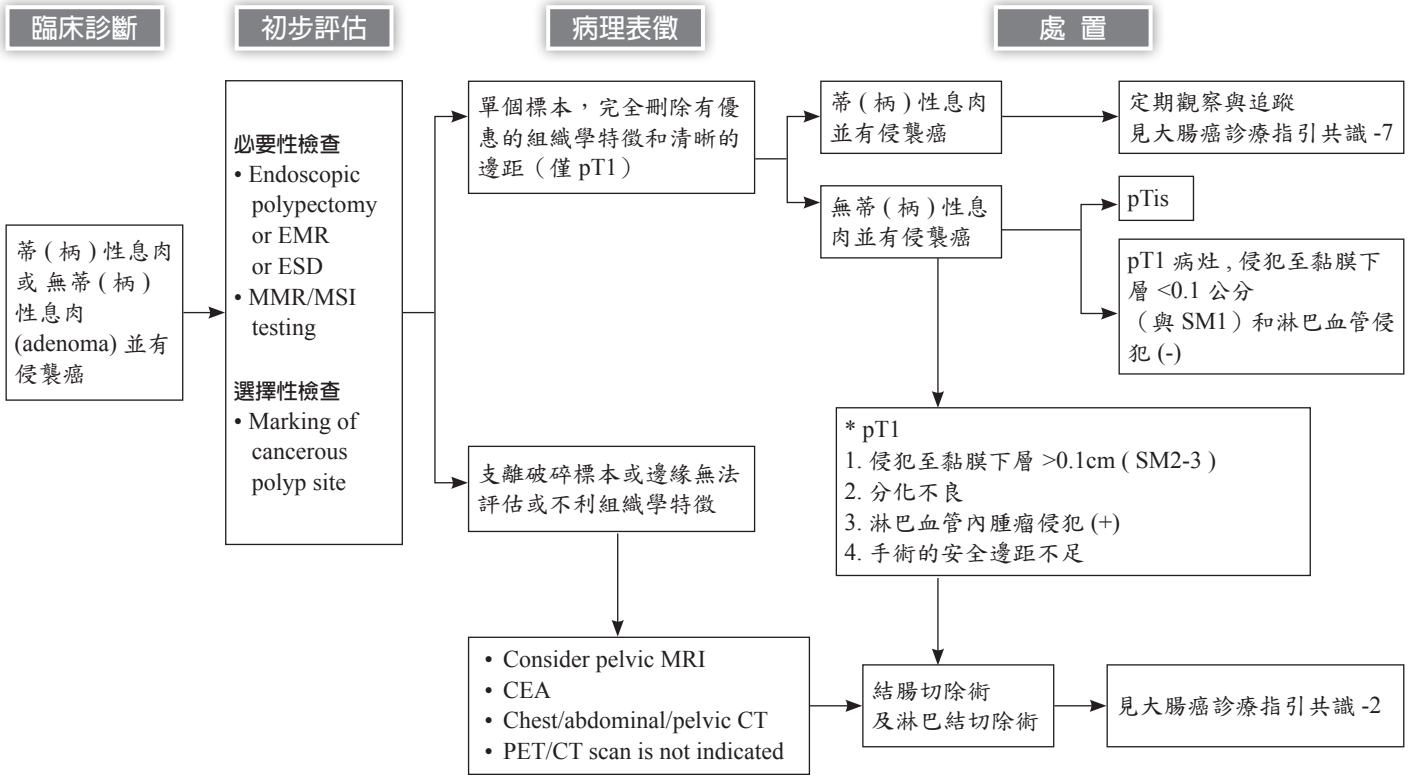
＊ 2. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。

＊ 3. 直腸癌僅腹膜轉移未合併肝肺轉移，且 ECOG：0-1，心臟、肺、腎功能正常者 , → 癌細胞減積手術 ± 腹腔內溫熱化學治療 (選擇性)

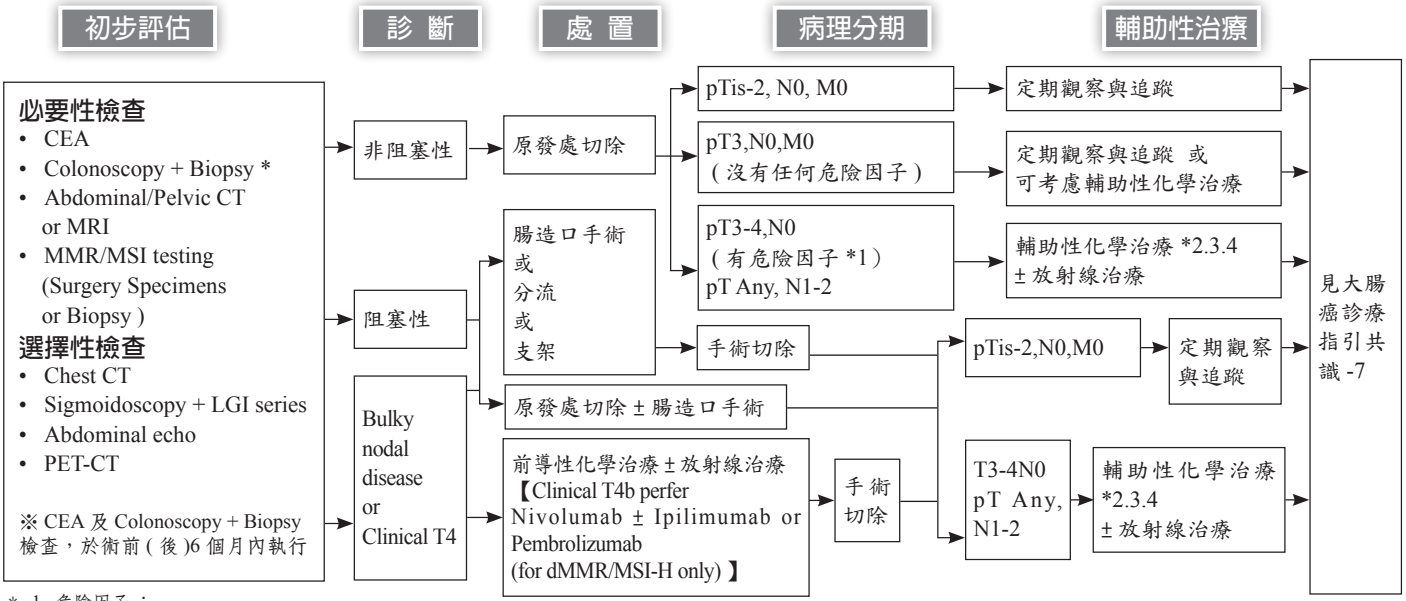
《直腸癌診療指引共識 -8》

Follow up Program for Rectal Cancer Patients (at least 5 years)	
CEA	術後第一個月，兩年內每三到六個月，以後每六個月一次。
Chest /Abdomen + pelvic CT	(1) Stage II,III: 每 6-12 個月一次，總共 5 年
	(2) Stage IV: 兩年內每 3-6 個月一次，以後每 6-12 個月一次，總共 5 年
Colonoscopy or Barium enema + Sigmoidoscopy	第一年一次，之後每隔一年一次 。
	術前爲阻塞型病灶，未全程做完大腸鏡檢者，術後 3-6 個月內即應再施檢一次。 若爲 advanced adenoma，追蹤 1 年。 若非爲 advance adenoma，追蹤 3 年而後追蹤 5 年。
Rigid proctoscopy (選擇性)	每 3-4 個月一次，持續 2 年，然後每 6 個月一次，共 5 年。
Abdomen sono (選擇性)	每半年一次。
PET-CT scan (選擇性)	臨床評估需要時。

《大腸癌診療指引共識 -1》


臨床診斷
初步評估
病理表徵
處 置
蒂 (柄) 性息肉或無蒂 (柄) 性息肉 (adenoma) 並有侵襲癌
必要性檢查
• Endoscopic polypectomy or EMR or ESD
• MMR/MSI testing
選擇性檢查
• Marking of cancerous polyp site
單個標本，完全刪除有優惠的組織學特徵和清晰的邊距（僅 pT1）
支離破碎標本或邊緣無法評估或不利組織學特徵
蒂 (柄) 性息肉並有侵襲癌
無蒂 (柄) 性息肉並有侵襲癌
定期觀察與追蹤
見大腸癌診療指引共識 -7
pTis
pT1 病灶 , 侵犯至黏膜下層 <0.1 公分（與 SM1）和淋巴血管侵犯 (-)
* pT1
1. 侵犯至黏膜下層 >0.1cm (SM2-3)
2. 分化不良
3. 淋巴血管內腫瘤侵犯 (+)
4. 手術的安全邊距不足
• Consider pelvic MRI
• CEA
• Chest/abdominal/pelvic CT
• PET/CT scan is not indicated
結腸切除術及淋巴結切除術
見大腸癌診療指引共識 -2

《大腸癌診療指引共識 -2》



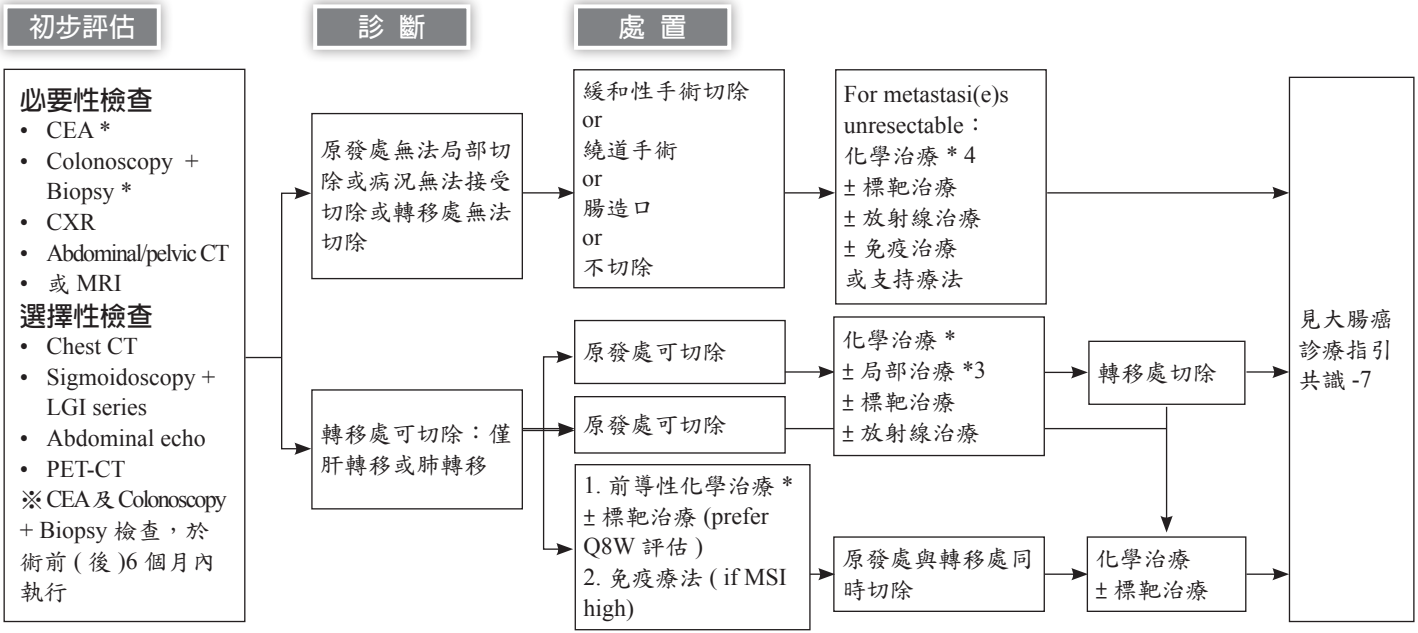
＊ 1 . 危險因子 ：
(1) 分化不良 (Pooly differentiated) (2) 淋巴血管內腫瘤侵犯 or 神經週圍浸潤 (Lymphatic/vascular/perineural invasion)
(3) 淋巴摘除 <12 顆 (<12 lymph nodes examined) (4) 局部穿孔 (Localized Perforation) (5) 完全腸道阻塞 (Bowel obstruction)
(6) 手術的安全邊距不足、無法界定或手術邊距有癌細胞侵犯 (Close, indeterminate or positive margins)
(7) StageIIA,pT3N0M0：(無危險因素) 增加檢 查 MSI or MMR (選擇性), 如果 MSI low → 輔助性化學治療。

＊ 2. A survival benefit has not been demonstrated for the addition of oxaliplatin to 5-FU/leucovorin in stage II colon cancer. Tournigand C, André T, Bonnetain F, et al. Adjuvant therapy with fluorouracil and oxaliplatin in stage II and elderly patients (between ages 70 and 75 years) with colon cancer: subgroup analyses of the Multicenter International Study of Oxaliplatin, Fluorouracil, and Leucovorin in the Adjuvant Treatment of Colon Cancer trial. J Clin Oncol 2012; published online ahead of print on August 20, 2012.

＊ 3. A benefit for the addition of oxaliplatin to 5-FU/leucovorin in patients age 70 and older has not been proven.

＊ 4 . 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。.

《大腸癌診療指引共識 -3》



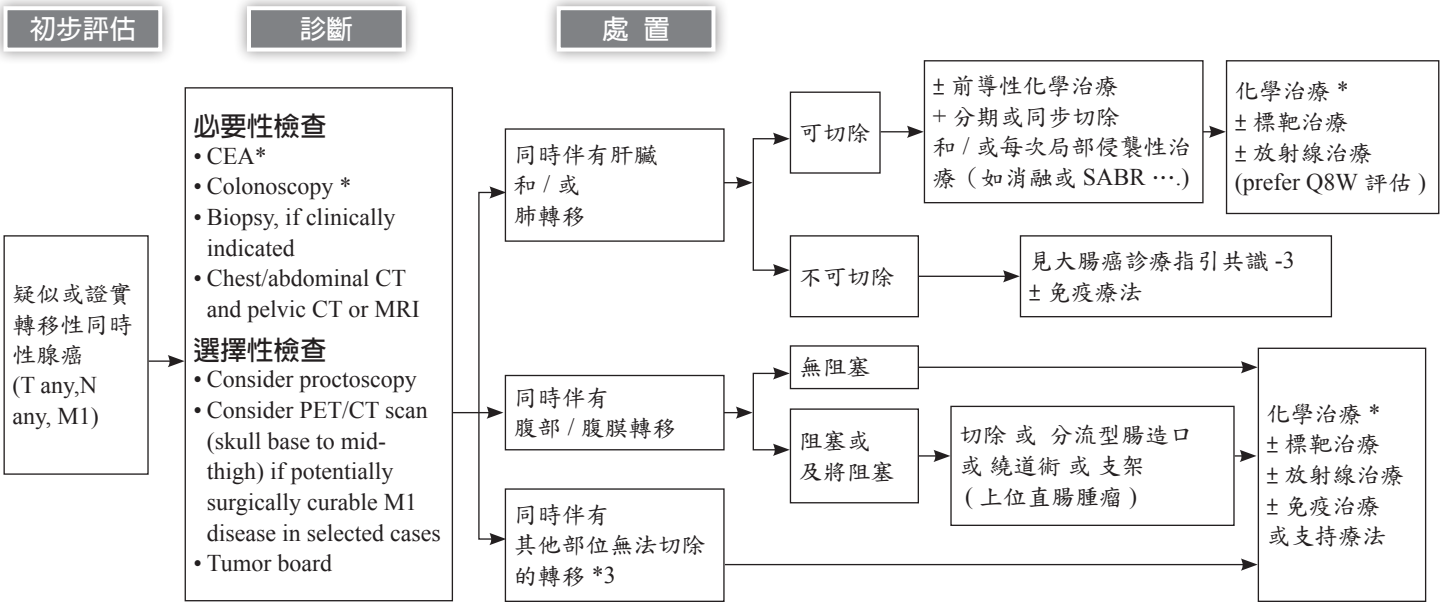
＊ 1. 確定 KRAS.NRAS 和 BRAF 突變和 HER2.POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel]）（可選）

＊ 2. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。.

＊ 3. 對於非進展性原發性腫瘤，切除術優於局部消融術（例如，圖像引導消融術或立體定向放射治療 (SBRT)。然而，這些局部技術可考慮用於肝或肺寡轉移。

＊ 4. 肝動脈輸注 ± 全身性 5-FU/leucovorin (category 2B) 也是有經驗的機構的一種選擇該程序的外科和內科腫瘤學方面。

《大腸癌診療指引共識 -4》



＊ 1. CEA and Colonoscopy + Biopsy（接受切除手術之個案，如果切除前無法進行結腸鏡檢查，則必須在 6 個月內進行結腸鏡檢查）
＊ 2. 確定 KRAS.NRAS 和 BRAF 突變和 HER2.POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel])（可選）。
＊ 3. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。.
＊ 4. 當腫瘤存在阻塞、大出血、穿孔或其他重要症狀的立即風險時，可考慮切除腫瘤。
＊ 5. 如 d-MMR,MSI-H 可考慮免疫療法。
＊ 6. 大腸癌僅腹膜轉移未合併肝肺轉移，且 ECOG：0-1，心臟、肺、腎功能正常者 , → 癌細胞減積手術 ± 腹腔內溫熱化學治療 (選擇性)。

《大腸癌診療指引共識 -5》

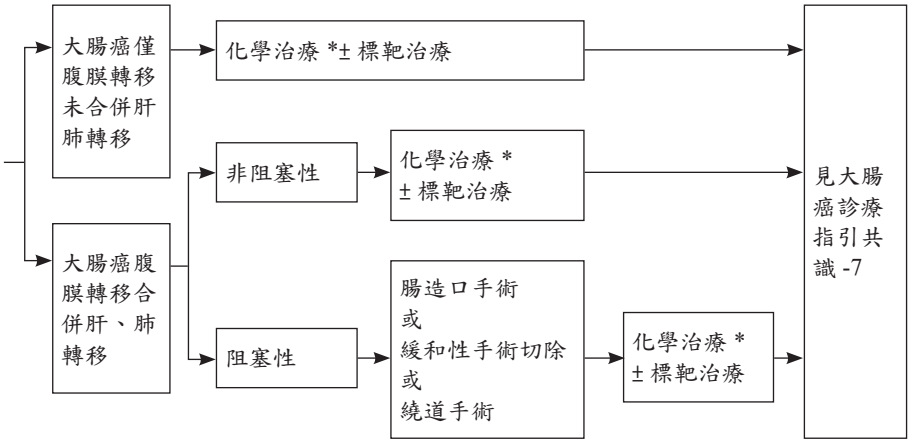
初步評估　診 斷　處 置

Metastases

必要性檢查
- CEA *
- Colonoscopy + Biopsy *
- CXR
- Abdominal/pelvic
- CT or MRI
- KRAS gene status

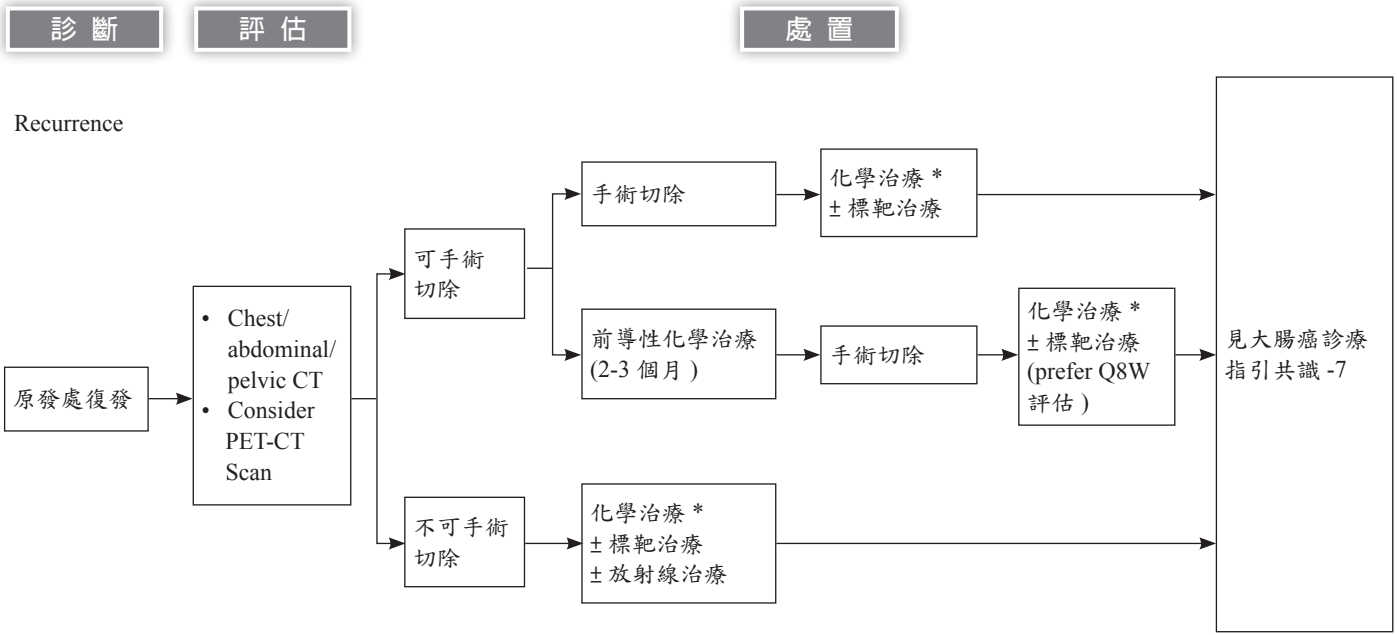
選擇性檢查
- Chest CT
- Sigmoidoscopy + LGI series
- Abdominal echo
- PET-CT
- Needle biopsy, if clinically indicated
- Multidisciplinary team evaluation,including a surgeon experienced in the resection of hepatobiliary andlung metastases

※ CEA 及 Colonoscopy + Biopsy 檢查，於術前 (後)6 個月內執行



＊ 1. 確定 KRAS.NRAS 和 BRAF 突變和 HER2.POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel]）（可選）
＊ 2. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。
＊ 3. 如 d-MMR,MSI-H 可考慮免疫療法。
＊ 4 . 大腸癌僅腹膜轉移未合併肝肺轉移，且 ECOG：0-1，心臟、肺、腎功能正常者 , → 癌細胞減積手術 ± 腹腔內溫熱化學治療 (選擇性)。

《大腸癌診療指引共識 -6》



＊ 1. 確定 KRAS.NRAS 和 BRAF 突變和 HER2、POLE /POLD1,RET 和 NTRK 擴增的腫瘤基因狀態（單獨或作為部分基於組織或血液的下一代測序 [NGS panel]）（可選）。
＊ 2. 對於 70 歲以下且 ECOG：0-2 分的患者，我們建議採標準化療處方。
＊ 3. 如 d-MMR,MSI-H 可考慮免疫療法。

《大腸癌診療指引共識 -7》

Follow up Program for Colon Cancer Patients (at least 5 years)	
CEA	術後第一個月，兩年內每三到六個月，以後每六個月一次。
Chest /Abdomen + pelvic CT	(1) Stage II,III: 每 6-12 個月一次，總共 5 年
	(2) Stage IV: 兩年內每 3-6 個月一次，以後每 6-12 個月一次，總共 5 年
Colonoscopy or Barium enema + Sigmoidoscopy	第一年一次，之後每隔一年一次 。
	術前爲阻塞型病灶，未全程做完大腸鏡檢者，術後 3-6 個月內即應再施檢一次。 若爲 advanced adenoma，追蹤 1 年。 若非爲 advance adenoma，追蹤 3 年而後追蹤 5 年。
Abdomen sono (選擇性)	每半年一次
PET-CT scan (選擇性)	臨床評估需要時。

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《大腸直腸癌抗癌藥物治療指引》

Adjuvant Therapy of Colon Cancer

mFOLFOX6

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	12	1-3
Leucovorin	400	1	Q2W	12	1-3
5-FU	400	1	Q2W	12	1-3
5-FU	1200*	1-2	Q2W	12	1-3

* Continuous infusion for 24 hours

FOLFOX4

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	12	8
Leucovorin	200	1	Q2W	12	8
5-FU	400	1	Q2W	12	8
5-FU	600*	1-2	Q2W	12	8

* Continuous infusion for 24 hours

FOLFOX7

藥品名 *	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W		11
Leucovorin	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Capecitabine

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Capecitabine	1250 PO BID	1-14	Q3W	8	4

CapeOx

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	130	1	Q3W	8	5
Capecitabine	1000 PO BID	1-14	Q3W	8	

5-FU+LV

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Leucovorin	500	1, 8, 15, 22. 29, 36	Q8W	4	6
5-FU	500	1, 8, 15, 22. 29, 36	Q8W	4	

sLV5FU2

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Leucovorin	400	1	Q2W	12	7
5-FU	400	1	Q2W	12	
5-FU	1200*	1-2	Q2W	12	

* Continuous infusion for 24 hours

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
UFUR	300-350/day PO	1-28	Q4W	6	9
± Leucovorin	50-150 mg PO QD	1-28	Q4W	6	

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
TS-1	40 PO BID	1-28	Q6W	4	10

Neoadjuvant Therapy of Colon Cancer

同 1st line therapy of metastatic colon cancer

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Adjuvant Therapy of Rectal Cancer

Chemotherapy

mFOLFOX6

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	12	1-3
Leucovorin	400	1	Q2W	12	
5-FU	400	1	Q2W	12	
5-FU	1200*	1-2	Q2W	12	

* Continuous infusion for 24 hours

sLV5FU2

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Leucovorin	400	1	Q2W	12	4, 13
5-FU	400	1	Q2W	12	
5-FU	1200*	1-2	Q2W	12	

* Continuous infusion for 24 hours

Capecitabine

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Capecitabine	1250 PO BID	1-14	Q3W	8	5

CapeOx

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	130	1	Q3W	8	6, 7
Capecitabine	1000 PO BID	1-14	Q3W	8	

5-FU+LV

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Leucovorin	500	1, 8, 15, 22. 29, 36	Q8W	4	8
5-FU	500	1, 8, 15, 22. 29, 36	Q8W	4	

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Uracil-Tegafur (UFUR)	300-350/day PO	1-28	Q4W	6	14
± Leucovorin	50-150 mg PO QD	1-28	Q4W	6	

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Tegafur/gimeracil/ oteracil (TS-1)	40 PO BID	1-28	Q42D	4	15

Chemotherapy + RT

XRT + continuous infusion 5-FU

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
5-FU	225	1-5 or 1-7	Q4W	During XRT	9

XRT + 5-FU/LV

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
5-FU	400	1-4	Q4W	During week 1, 5 of XRT	10
Leucovorin	20	1-4	Q4W		

XRT + Capecitabine

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Capecitabine	825 PO BID	1-5	QW	5	11, 12

XRT + mFOLFOX6

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1			16
Leucovorin	400	1			
5-FU	400	1			
5-FU	1200*	1-2			

* Continuous infusion for 24 hours

Neoadjuvant Therapy of Rectal Cancer

FOLFOX

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	6	16
Leucovorin	400	1	Q2W	6	
5-FU	400	1	Q2W	6	
5-FU	1200*	1-2	Q2W	6	

* Continuous infusion for 24 hours

CapeOx

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	130	1	Q3W	4	17
Capecitabine	1000 PO BID	1-14	Q3W	4	

FOLFIRINOX (T4, N+)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	12	20
Leucovorin	400	1	Q2W	12	
Irinotecan	180	1	Q2W	12	
5-FU	400	1	Q2W	12	
5-FU	1200*	1-2	Q2W	12	

* Continuous infusion for 24 hours

mFOLFIRINOX (T4, N+)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	12	21
Leucovorin	400	1	Q2W	12	
Irinotecan	150	1	Q2W	12	
5-FU	1200*	1-2	Q2W	12	

* Continuous infusion for 24 hours

Therapy after CCRT

Oral Uracil-Tegafur + LV

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Uracil-Tegafur (UFUR)	250 mg/m^2 PO QD		QW		18, 19
Leucovorin (Folina)	45 mg PO QD		QW		

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Chemotherapy for Advanced or Metastatic Colon and Rectal Cancer

First-line therapy

mFOLFOX6

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	8-12	1, 2, 3
Leucovorin	400	1	Q2W	8-12	
5-FU (optional)	400	1	Q2W	8-12	
5-FU	1200*	1-2	Q2W	8-12	

* Continuous infusion for 24 hours

mFOLFOX7

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	8-12	28
Leucovorin	200	1	Q2W	8-12	
5-FU	1200	1-2	Q2W	8-12	

* Continuous infusion for 24 hours

FOLFOX + Bevacizumab

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Bevacizumab	5 mg/kg	1	Q2W		4
Oxaliplatin	85	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

FOLFOX + Panitumumab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Panitumumab	6 mg/kg	1	Q2W		5
Oxaliplatin	85	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

FOLFOX + Cetuximab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Cetuximab	500 (400 → 250)	1	Q2W (QW)		6
Oxaliplatin	85	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Xelox

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Oxaliplatin	85	1	Q2W	Max 12	33
Capecitabine	1000 PO BID	1-7	Q2W	Max 12	

CapeOx

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Oxaliplatin	130	1	Q3W	Max 16	7
Capecitabine	1000 PO BID	1-14	Q3W	Max 16	

CapeOx + Bevacizumab

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Bevacizumab	7.5 mg/kg	1	Q3W	Max 16	7
Oxaliplatin	130	1	Q3W	Max 16	
Capecitabine	1000 PO BID	1-14	Q3W	Max 16	

FOLFIRI

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Irinotecan	180	1	Q2W		8, 9
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

FOLFIRI + Bevacizumab

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Bevacizumab	5 mg/kg	1	Q2W		10
Irinotecan	180	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

FOLFIRI + Cetuximab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Cetuximab	500 (400 → 250)	1	Q2W (QW)		11, 12
Irinotecan	180	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

FOLFIRI + Panitumumab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Panitumumab	6 mg/kg	1	Q2W		13
Irinotecan	180	1	Q2W		
Leucovorin	400	1	Q2W		
5-FU (optional)	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Capecitabine

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Capecitabine	1000 (825-1250) PO BID	1-14	Q3W		16

Capecitabine + Bevacizumab

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Bevacizumab	7.5 mg/kg	1	Q3W		16
Capecitabine	1000 (825-1250) PO BID	1-14	Q3W		

CapeOx + Cetuximab

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Cetuximab	500 (400 → 250)	1	Q2W (QW)	*	39
Oxaliplatin	130	1	Q3W		
Capecitabine	1000 PO BID	1-14	Q3W		

*12 weeks before & after surgery

CapeOx + Panitumumab

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Panitumumab	6 mg/kg	1	Q2W	*	39
Oxaliplatin	130	1	Q3W		
Capecitabine	1000 PO BID	1-14	Q3W		

*12 weeks before & after surgery

FOLFOXIRI ± Bevacizumab

藥品名	劑量 * mg/m²	給藥日	頻率	週期	參考文獻
± Bevacizumab	5 mg/kg	1	Q2W		21, 22, 43
Oxaliplatin	85	1	Q2W		
Leucovorin	400	1	Q2W		
Irinotecan	150	1	Q2W		
± 5-FU	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Cetuximab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Cetuximab	500 (400 → 250)	1	Q2W (QW)		12, 25

Panitumumab (KRAS/NRAS WT gene only)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Panitumumab	6 mg/kg	1	Q2W		26

Pembrolizumab (MSI-H)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Pembrolizumab	2 mg/kg	1	Q3W		29

Pembrolizumab (MSI-H)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Pembrolizumab	200 mg	1	Q3W		29

Nivolumab (MSI-H)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Nivolumab	3 mg/kg	1	Q2W		30

Nivolumab (MSI-H)

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Nivolumab	240 mg	1	Q2W		30

Nivolumab + Ipilimumab (MSI-H)

藥品名 *	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Nivolumab	3 mg/kg	1	Q3W	4	36
Ipilimumab	1 mg/kg	1	Q3W		
Followed by					
Nivolumab	3 mg/kg or 240 mg	1	Q2W		

Bolus or Infusional 5FU/Leucovorin

Roswell Park

藥品名	劑量 mg/m²	給藥日	頻率	週期	參考文獻
Leucovorin	500	1, 8, 15, 22, 29, 36	Q8W		17
5-FU	500	1, 8, 15, 22, 29, 36	Q8W		

Simplified biweekly infusional 5-FU/LV (sLV5FU2)

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Leucovorin	400	1	Q2W		8
5-FU	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Infusional 5-FU/LV (sLV5FU2) + Bevacizumab

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Bevacizumab	5 mg/kg	1	Q2W		38
Leucovorin	400	1	Q2W		
5-FU	400	1	Q2W		
5-FU	1200*	1-2	Q2W		

* Continuous infusion for 24 hours

Weekly

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Leucovorin	20	1	QW		18
5-FU	500	1	QW		

藥品名	劑量 mg/m^2	給藥日	頻率	週期	參考文獻
Leucovorin	500	1	QW		19
5-FU	2600	1	QW		

* Continuous infusion for 24 hours

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《直腸癌放射治療共識》

一、治療範圍

1. 直腸腫瘤 / 低位乙狀結腸腫瘤或腫瘤原發部位
2. 骨盆腔內淋巴轉移病灶
3. 骨盆腔 / 鼠蹊部 高風險淋巴引流範圍

二、治療劑量 / 次數

1. 手術前放射治療：標準療程總劑量：45~50.4 Gy，分次劑量：1.8~2.0 Gy；短療程總劑量 25Gy，分次劑量：5Gy
2. 手術後放射治療：總劑量：45-54Gy，分次劑量：1.8~2.0 Gy
3. 拒絕手術或無法手術切除之放射治療，總劑量：54-60.4Gy，分次劑量：1.8~2.0 Gy

三、治療方式：

以高順型技術爲主，包括 3D 順型治療、強度調控放射治療、弧形及螺旋放射規畫皆是選項，可考慮搭配影像導引治療。

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