



仁愛醫療財團法人
JEN-AI HOSPITAL

大腸癌診療指引

2009年06月03日制定

2010年05月11日一修

2011年05月25日二修

2012年05月30日三修

2013年03月27日四修

2014年02月26日五修

2015年02月25日六修

2016年02月24日七修

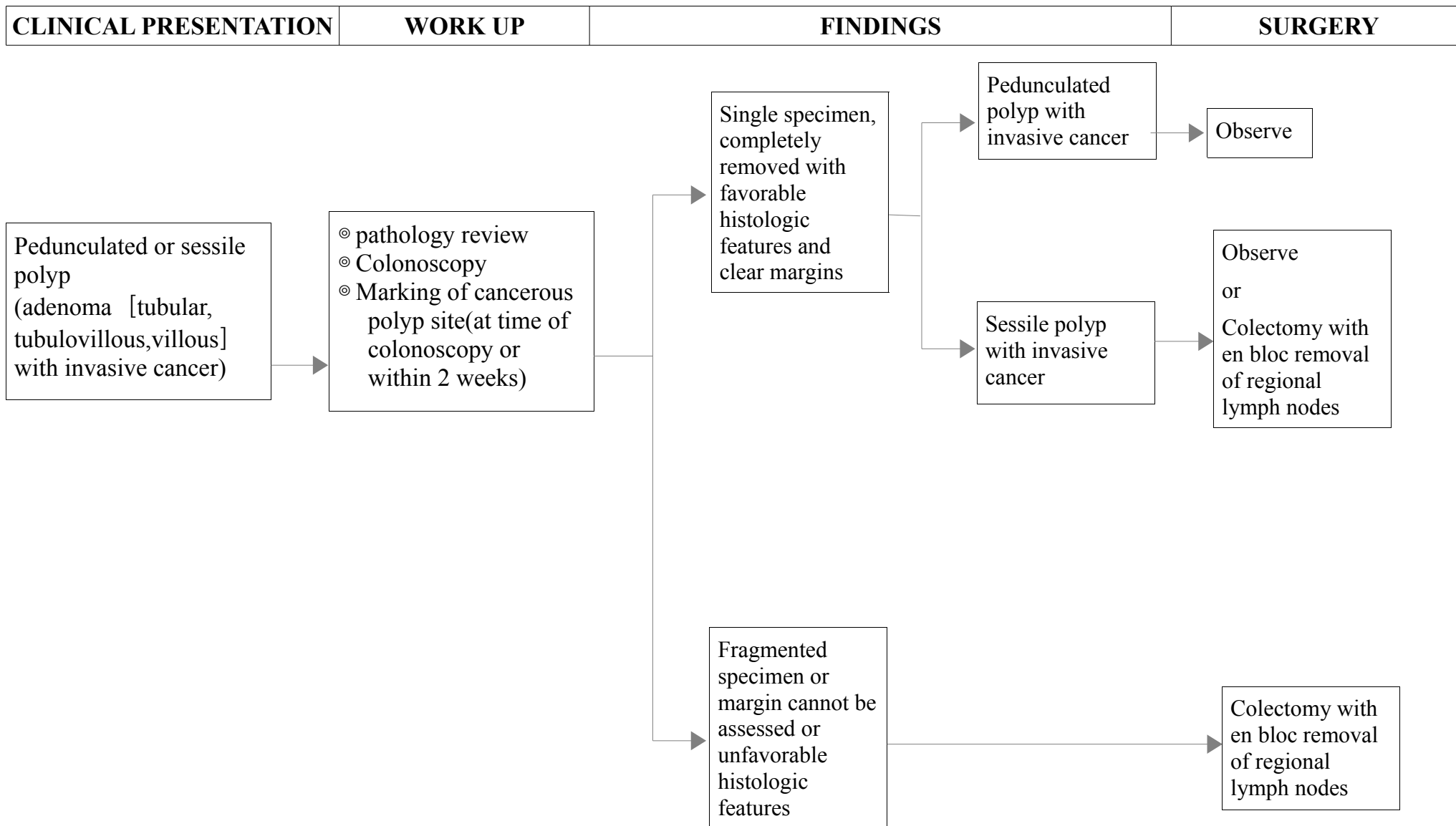
2017年02月22日八修

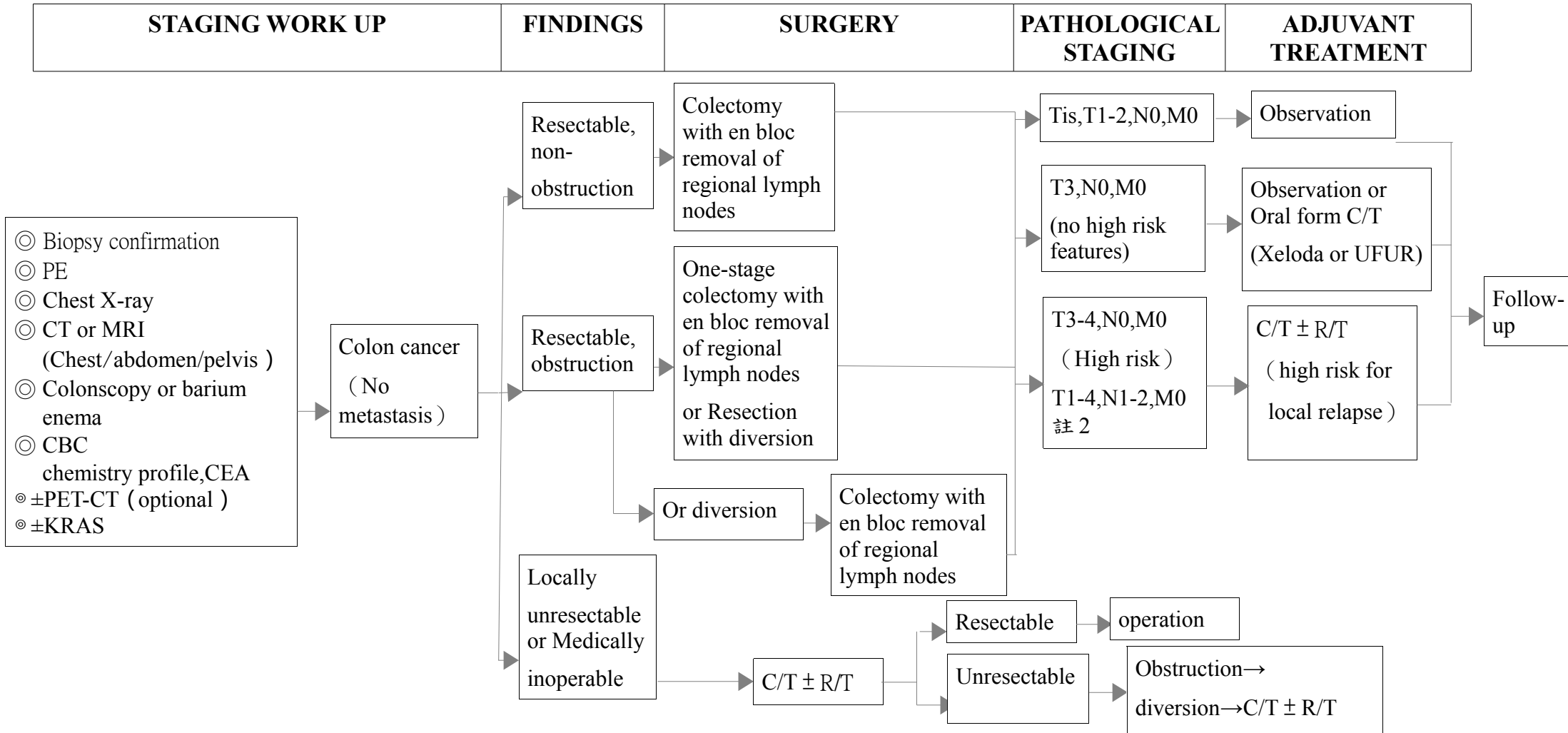
2018年02月21日九修

大腸癌醫療團隊共同制定

修訂原則

- 參與修訂科別：大腸直腸外科、一般外科、消化系內科、放射診斷科、
病理科、腫瘤治療科、血液暨腫瘤內科、安寧緩和團隊。
- 診療指引需符合以下原則：
 - 一、依據實證醫學精神，並於指引中註明主要參考文獻（至少為 peer review article，若引用醫院之資料庫資料需提供分析及討論紀錄。
 - 二、參酌國情並經院內共識討論，且有相關會議紀錄佐。
 - 三、定期檢視改版（至少每年一次，且明確標示制訂或修訂日期）。
 - 四、團隊共識後所訂之指引，應提送癌委會核備後公告。





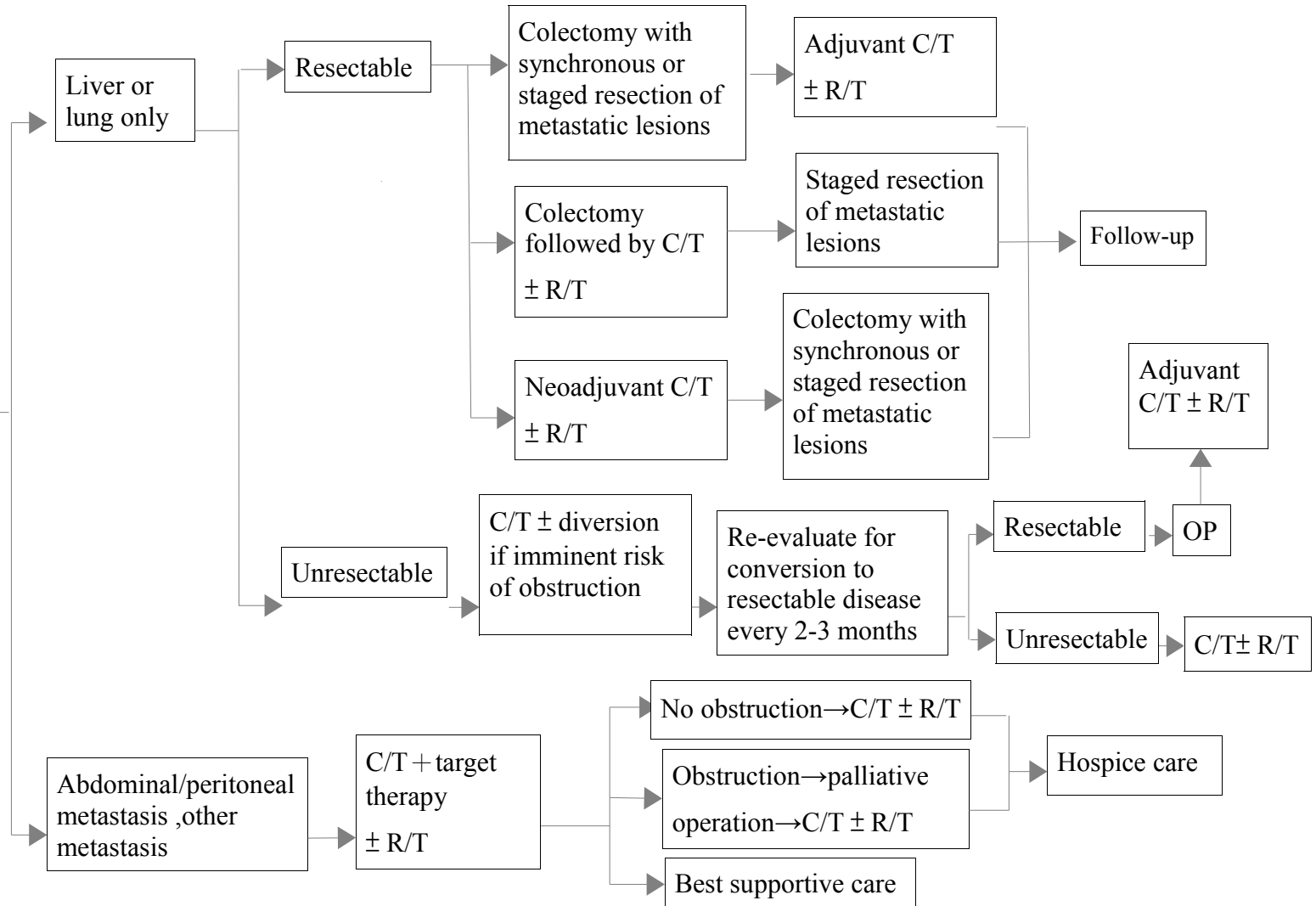
註 1.Operation : colectomy with en bloc regional lymph node removal (≥12LNs) or resection with diversion.

註 2.High risk : T4N0/N+ , T3N+ , T3N0 close margin (<1cm) , tumor with perforation and fistula formation, incomplete excision(microscopic or gross residual), Poorly differentiated, lymphatic/vascular invasion, bowel obstruction, <12 LNs examined, Perineural invasion.

STAGING WORK UP	INITIAL STAGING	ADJUVANT TREATMENT	
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- ◎ Biopsy confirmation
- ◎ PE
- ◎ Chest X-ray
- ◎ CT or MRI (Chest/abdomen/pelvis)
- ◎ Colonoscopy or barium enema
- ◎ CBC
- chemistry profile,CEA
- ◎ ±PET-CT (optional)
- ◎ ±KRAS

Colon cancer with suspected metastasis (AnyT, anyN,M1)



FOLLOW-UP

Time	3m	6m	9m	1yr	3m	6m	9m	2yr	6m	3yr	6m	4yr	6m	5yr
History and PE	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CEA	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CXR	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sono	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CT				■				■		■		■		■
Colonoscopy		■		■		■		■		■		■		■

備註：新診斷個案於手術前未行全大腸鏡檢，術後6個月內應施做全大腸鏡檢（或直腸鏡+下消化道雙鉍劑攝影）

大腸癌化療處方 Chemotherapy regimen		
治療目的	組套編碼	處方內容
Adjuvant	CA01	FOLFOX^{3,8,50} mFOLFOX- 6 Oxaliplatin 85 mg/m ² , IV over 2 hours, day 1 Leucovorin 400 mg/m ² in NS 250 mL, IV over 2 hour, days 1,2 (before 5FU) 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day in NS 500ml IV CI 24 hours, DAYS 1,2 Repeat every 2 weeks
	CA02	CA2_Simplified biweekly infusional 5-FU/LV (sLV5FU2)¹ Leucovorin 400 mg/m ² in NS 250 mL, IV over 2 hour, days 1,2 (before 5FU) 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day, in NS 500 mL, IV 24 hour, days 1,2 Repeat every 2 weeks¹
	CA03	CapeOX²⁹ Oxaliplatin 130 mg/m ² , in D5W 250 mL, IV over 2 hours, day 1 Capecitabine 1000 mg/m ² , po twice daily, days 1-14 Repeat every 3 weeks x 24wks
	CA04	Capecitabine²⁴ Capecitabine 1250 mg/m ² /day, po twice daily, days 1-14 Repeat every 3 week to a total of 6 months perioperative therapy
	CA05	Uracil-Tegaful⁴³ UFUR 400 mg/day, oral daily x 2years

Advanced Metastasis (Oxaliplatin based)	CPOX1	FOLFOX (Oxaliplatin-based)^{3,8,10} mFOLFOX 6 Oxaliplatin 85mg/m ² in D5W 250 mL IV over 2 hours, day 1 Leucovorin 400 mg/m ² in NS 250 mL, IV over 2 hour, days 1,2 (before 5FU) 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day, in NS 500 mL, IV CI 24 hours, days 1,2 Repeat every 2 weeks
	CPOX1-1	FOLFOX (Oxaliplatin-based)^{3,8,10} mFOLFOX 6 + Bevacizumab^{8,10,31} Bevacizumab 5mg/kg IV, day1 Oxaliplatin 85mg/m ² in D5W 250 mL IV over 2 hours, day 1 Leucovorin 400 mg/m ² in NS 250 mL, IV over 2 hour, days 1,2 (before 5FU) 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day in NS 500 mL IV CI 24 hours, days 1,2 Repeat every 2 weeks
	CPOX1-2	mFOLFOX 6 + Aflibercept^{8,51} Aflibercept 4mg/kg IV, day 1 With Oxaliplatin 85mg/m ² in D5W 250 mL IV over 2 hours, day 1 Leucovorin 400 mg/m ² /day, IV infusion to match duration of irinotecan infusion, day 1 5-FU 400 mg/m ² , IV bolus, day 1 5-FU 1200 mg/m ² /day x 2 days CI (total 2400 mg/m ² over 46-48 hour) Repeat every 2 weeks

	CPOX1-3	<p>mFOLFOX 6 + Cetuximab^{8,44} Cetuximab 400 mg/m² IV over 2 hours first infusion, then 250 mg/m²,IV over 60 minutes weekly Or Cetuximab 500 mg/m² IV over 2 hours, day 1, every 2 weeks With Oxaliplatin 85mg/m² in D5W 250 mL IV over 2 hours,day 1 Leucovorin 400 mg/m²/day IV infusion to match duration of irinotecan infusion , day 1 5-FU 400 mg/m²/day IV bolus, DAYS 1 5-FU 1200 mg/m²/day x 2 day(total 2400 mg/m² over 46-48 hours) Repeat every 2 weeks</p>
	CPOX1-4	<p>MFOLFOX 6 + Panitumumab(KRAS/NRAS WT gene only)^{8,45} Panitumumab 6 mg/kg IV over 60 minutes,day 1 With Oxaliplatin 85mg/m² in D5W 250 mL IV over 2 hours,day 1 Leucovorin 400 mg/m²/day IV infusion to match duration of irinotecan infusion , day 1 5-FU 400 mg/m²/day IV bolus, DAYS 1 5-FU 1200 mg/m²/day x 2 day(total 2400 mg/m² over 46-48 hours) Repeat every 2 weeks</p>
	CPOX2	<p>FOLFOX (Oxaliplatin-based)^{5,8,10} CapeOX Oxaliplatin 130mg/m² in D5W 250 mL IV over 2 hours,day 1 Capecitabine 850-1000 mg/ m² PO twice daily days 1-14 Repeat every 3 weeks</p>

Advanced Metastasis (Irinotecan based)	RECPOX2-1	FOLFOX (Oxaliplatin-based)^{5,8,10} CapeOX + Bevacizumab³⁰ Bevacizumab 7.5mg/kg IV, day1 Oxaliplatin 130mg/m ² in D5W 250 mL IV over 2 hours, day 1 Capecitabine 850-1000 mg/ m ² PO twice daily days 1-14 Repeat every 3 weeks
	CPIRI1	FOLFIRI (Irinotecan-based)¹ Irinotecan 180 mg/ m ² ,in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m ² in NS 250 mL,IV over 2 hour,days 1,2 (before 5FU) 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day, in NS 500 mL ,IV CI 24 hours, days 1,2 Repeat every 2 weeks
	CPIRI1-1	FOLFIRI⁷ + Bevacizumab^{1,13} Bevacizumab 5mg/kg, IV, every 2 weeks Irinotecan 180 mg/ m ² , in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m ² in NS 250 mL,IV over 2 hour,days 1,2 5-FU 400 mg/m ² /day IV bolus, DAYS 1 5-FU 1200 mg/m ² /day IV CI 24 hours, days 1,2 Repeat every 2 weeks
	CPIRI1-2	FOLFIRI⁷ + Cetuximab^{1,16} Cetuximab 500 mg/m ² IV over 2 hours, day 1, every 2 weeks Or Cetuximab 400 mg/m ² , IV over 2 hours first infusion, then 250 mg/m ² , IV over 60 minutes weekly With

		<p>Irinotecan 180 mg/ m2, in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m2 in NS 250 mL,IV over 2 hour, days 1,2 (before 5FU) 5-FU 400 mg/m²/day IV bolus, DAYS 1 5-FU 1200 mg/m2/day , in NS 500 mL,IV CI 24 hours, days1,2 Repeat every 2 weeks</p>
	CPIR11-3	<p>FOLFIRI¹+Ziv-Aflibercept^{1,51} Aflibercept 4mg/kg IV, day 1 With Irinotecan 180 mg/ m2, in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m2 IV infusion to match duration of irinotecan infusion , day 1 5FU 400 mg/m2 ,IV bolus ,day 1 5-FU 1200 mg/m2/day,in NS 500 mL IV CI 24 hours, days1,2 Repeat every 2 weeks</p>
	CPIR11-4	<p>FOLFIRI¹+ Panitumumab(KRAS/NRAS WT gene only)⁴⁶ Panitumumab 8 mg/kg IV over 60 minutes,day 1 With Irinotecan 180 mg/ m2, in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m2 in NS 250ml IV over 2 hours , day 1(before 5Fu) 5FU 400 mg/m2 ,IV bolus ,day 1 5-FU 1200 mg/m2/day x 2 days(total 2400 mg/m2 over 46-48 hours) Repeat every 2 weeks</p>
	CPIR11-5	<p>FOLFIRI¹+ Panitumumab⁴⁶ Panitumumab 8 mg/kg IV over 60 minutes,day 1 With Irinotecan 180 mg/ m2, in NS 250 mL,IV over 90 minutes , day 1 Leucovorin 400 mg/m2 IV infusion to match duration of irinotecan infusion , day 1 5FU 400 mg/m2 ,IV bolus ,day 1 5-FU 1200 mg/m2/day x 2 days(total 2400 mg/m2 over 46-48 hours)</p>

		Repeat every 2 weeks
	CPIR12 CPIR12-1	Cetuximab (KRAS/NRAS WT gene only) ± irinotecan ^{21,32} CPIR12_ irinotecan ^{21,32} Irinotecan 180 mg/ m ² ,in NS 250 mL IV over 90 minutes , day 1 Repeat every 2 weeks CPIR12_ irinotecan ^{21,32} / Cetuximab ¹² Irinotecan 180 mg/ m ² ,in NS 250 mL,IV over 90 minutes ,day 1 Cetuximab 500 mg/m ² IV every 2 weeks Repeat every 2 weeks
Advanced Metastasis (5FU based)	CPFU1	Weekly 5-FU/leucovorin ⁹ Leucovorin 500 mg/ m ² ,in NS 250 mL,IV over 2 hours on day 1, 5-FU 2600 mg/ m ² IV ,in NS 500 mL IV 24 hour,day 1 Repeat every weeks
	CPFU2	Simplified biweekly infusional 5-Fu/LV(sLV5FU2) ¹ Leucovorin 400 mg/ m ² in NS 250 mL,IV over 2 hours on day 1 5FU 400 mg/m ² ,IV bolus ,day 1 5-FU 1200 mg/ m ² IV ,in NS 500 mL,24-hour,day 1,2 Repeat every 2 weeks
	CPO2	Capecitabine ³¹ Capecitabine 850-1250 mg/ m ² ,orally twice daily ,day 1-14 Repeat every 3weeks
	CPO2 CPO2-1	Capecitabine + Bevacizumab ^{30,31} ± Bevacizumab 7.5mg/kg IV, day 1 Capecitabin 850-1250 mg/m ² PO twice daily, days 1-14 Repeat every 3 weeks

Advanced Metastasis (Other regimens)	CPO1	IROX¹⁵ Oxaliplatin 85mg/m ² ,in D5W 250 mL,IV over 2 hours, day1 Followed by Irinotecan 200mg/m ² ,in NS 250 mL,over 90minutes day1 Repeat every 3 weeks
	CPO3	FOLFOXIRI¹⁴± Bevacizumab⁴⁷ ± Bevacizumab 5mg/kg IV, day 1 Irinotecan 165mg/m ² ,in NS 250 mL,over 90minutes day1 Oxaliplatin 85mg/m ² ,in D5W 250 mL,IV over 2 hours, day1 Leucovorin 400 mg/ m ² ,in NS 250 mL,IV over 2 hours on day 1,2(before 5FU) 5FU 400 mg/m ² ,IV bolus ,day 1 5-FU 1600 mg/ m ² IV ,in NS 500 mL,24-hour,day 1,2 Repeat every 2 weeks
	CPO4	Cetuximab (KRAS/NRAS WT gene only)^{21,32} Cetuximab 400 mg/m ² first infusion, then 250 mg/m ² IV weekly Or Cetuximab 500 mg/m ² IV over 2 hours, day 1,every 2 weekly
	CPO5	Uracil-Tegaful⁴³ Uracil-Tegaful 400 mg/day ,PO daily
	CPO9	Regorafenib⁴⁸ Regorafenib 160mg , Orally once daily 1-21,Q28D
	CPO10	Regorafenib(KRAS/NRAS WT gene only)⁴⁹ Regorafenib 6 mg/kg IV over 60 minutes every 2 weeks
		Pembrolizumab Pembrolizumab 2 mg/kg every 3 weeks

		<p>Nivolumab Nivolumab 3 mg/kg every 2 weekl or Nivolumab 240 mg/kg IV every 2 weeks</p>
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Radiation therapy^{2,33,34}

Treatment type	RT technique	Total dose	Fraction size / # Fractions
Adjuvant RT Postoperative RT	Conventionally Fractionated RT IGRT+IMRT	45 -50.4 Gy to lymphatic drainage and nodal area 50.4-54 Gy to tumor bed or gross residual tumor	1.8-2Gy/ fraction
Neoadjuvant RT	Conventionally Fractionated RT IGRT+IMRT	45 -50.4 Gy to lymphatic drainage and primary tumor	1.8-2Gy/ fraction

註：實際治療分次劑量 × 總治療次數，應與處方劑量差異在±1Gy 內。