中山醫學大學附設醫院

食道癌診療指引

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2012/12/28 Version4.0
2011/12/02 Version3.0
2010/12/31 Version2.0
2009/12/17 Version1.0

本臨床指引參考台灣國家衛生研究院及美國NCCN版本

食道癌多專科醫療團隊編修

癌症委員會主任委員	癌症委員會執行長	癌症中心主任	抗癌藥物安全小組	團隊負責人
[signature]	[signature]	[signature]	[signature]	[signature]

修訂內容

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<tr><td>第 9 頁</td><td>六、食道癌治療指引 (Squamous Cell Carcinoma)
WORK-UP | EVALUATION | TREATMENT
主要檢查：
• History and physical examination
CBC and chemistry profile
• EGD and biopsy
• Chest or Abdominal CT / MRI
• PET/CT scan(if no evidence of M1 disease)
選擇性檢查：
-EUS
-Whole body bone scan
- Esophagography and/or upper GI series
-Upper abdominal sonography
-bronchoscopy: for cervix, upper and/or middle third
-next-generation sequencing (NGS)
pTis → Ablation
pT1aN0 → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
cT1b-T2, N0 (low risk*)
cT2N0 (high risk*) cT1b-T2, N+
cT3-T4a, any N
cT4b*, N+
cM1
Medically unfit and resectable or p't refuses surgery → CCRT
Medically fit and resectable → Surgery → R0 → pT+ N+ or ypT0,N0 → Observe and F/U; ypT+ and/or N+ → Nivolumab (category 1) or C/T
R1、R2 → CCRT (If no previous CCRT) Palliative management
Neo-adjuvant CCRT → Re-evaluation → Inoperable, or Surgery refused
Definitive CCRT
unable to tolerate CCRT → Palliative RT
Systemic therapy, and/or Palliative/Best supportive care
*Low risk: <3cm, well differentiated.
*High risk: ≥3cm, poorly differentiated,LVI(+)
*cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels, vertebral body, or heart</td><td>修改及新增
六、食道癌治療指引 (Squamous Cell Carcinoma)
WORK-UP | EVALUATION | TREATMENT
主要檢查：
• History and physical examination
CBC and chemistry profile
• EGD and biopsy
• Chest or Abdominal CT / MRI
• PET/CT scan(if no evidence of M1 disease)，排除 Tis、T1aN0
選擇性檢查：
-EUS
-Whole body bone scan
- Esophagography and/or upper GI series
-Upper abdominal sonography
-bronchoscopy: for cervix, upper and/or middle third
-next-generation sequencing (NGS)
pTis → Ablation
pT1aN0 → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
cT1b-T2, N0 (low risk*)
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Medically unfit and resectable or p't refuses surgery → CCRT
Medically fit and resectable → Surgery → R0 → pT+ N+ or ypT0,N0 → Observe and F/U; ypT+ and/or N+ → Nivolumab (category 1) or C/T
R1、R2 → CCRT (If no previous CCRT) Palliative management
Neo-adjuvant CCRT → Re-evaluation → Inoperable, or Surgery refused
Definitive CCRT
unable to tolerate CCRT → Palliative RT
Systemic therapy, and/or Palliative/Best supportive care
*Low risk: <3cm, well differentiated.
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*cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels or heart</td></tr>
<tr><td>第 10 頁</td><td>食道癌治療指引 (Adenocarcinom)
WORK-UP | EVALUATION | TREATMENT
主要檢查：
• History and physical examination
CBC and chemistry profile
• EGD and biopsy
• Chest or Abdominal CT / MRI
• PET/CT scan(if no evidence of M1 disease)
選擇性檢查：
-EUS
-Whole body bone scan
- Esophagography and/or upper GI series
-Upper abdominal sonography
-bronchoscopy: for cervix, upper and/or middle third
-next-generation sequencing (NGS)
pTis → Ablation
pT1aN0 Superficial pT1b → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD)) or Esophagectomy
cT1b-T2, N0 (low risk*)
cT2 N0(high risk*) cT1b-T2, N+
cT3-T4a, any N
cT4b,N+
cM1
Medically unfit and resectable or p't refuses surgery → CCRT
Medically fit and resectable → Surgery → N(-) → pTis-pT1,2 → Observe and F/U; pT3, pT4a → CT/CCRT/Observe; N(+)
Perioperative systemic therapy (preferred)
Neo-adjuvant CCRT
neoadjuvant or perioperative ICI
Re-evaluation → R0 → ypT0, N0 → Systemic therapy, if received perioperatively (category 1); ypT+, N+ → Nivolumab ,if neo-CCRT received (category 1)
R1、R2 resection → CCRT, If no previous CCRT Palliative management
Definitive CCRT
Inoperable, or refused surgery
unable to tolerate CCRT → Palliative RT
Systemic therapy, and/or Palliative/Best supportive care
*Low risk: <3cm, well differentiated.
*High risk: ≥3cm, poorly differentiated,LVI(+)
*cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels, vertebral body, or heart</td><td>修改及新增
食道癌治療指引 (Adenocarcinoma)
WORK-UP | EVALUATION | TREATMENT
主要檢查：
• History and physical examination
CBC and chemistry profile
• EGD and biopsy
• Chest or Abdominal CT / MRI
• PET/CT scan(if no evidence of M1 disease) ，排除 Tis、T1aN0
選擇性檢查：
-EUS
-Whole body bone scan
- Esophagography and/or upper GI series
-Upper abdominal sonography
-bronchoscopy: for cervix, upper and/or middle third
-next-generation sequencing (NGS)
pTis → Ablation
pT1aN0 Superficial pT1b → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
cT1b-T2, N0 (low risk*)
cT2 N0(high risk*) cT1b-T2, N+
cT3-T4a, any N
cT4b,N+
cM1
Medically unfit and resectable or p't refuses surgery → CCRT
Medically fit and resectable → Surgery → N(-) → pTis-pT1,2 → Observe and F/U; pT3, pT4a → CT/CCRT/Observe; N(+)
Perioperative systemic therapy (preferred)
Neo-adjuvant CCRT
neoadjuvant or perioperative ICI
Re-evaluation → R0 → ypT0, N0 → Systemic therapy, if received perioperatively (category 1); ypT+, N+ → Nivolumab ,if neo-CCRT received (category 1)
R1、R2 resection → CCRT, If no previous CCRT Palliative management
Definitive CCRT
Inoperable, or refused surgery
unable to tolerate CCRT → Palliative RT
Systemic therapy, and/or Palliative/Best supportive care
*Low risk: <3cm, well differentiated.
*High risk: ≥3cm, poorly differentiated,LVI(+)
*cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels , or heart</td></tr>
</table>

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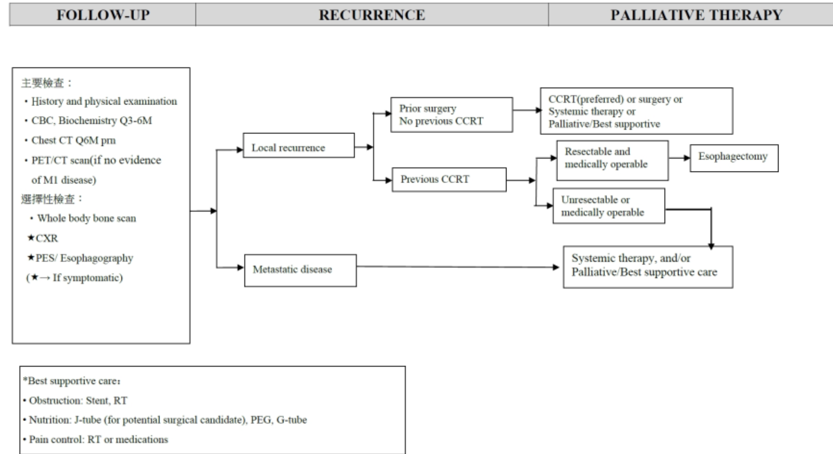
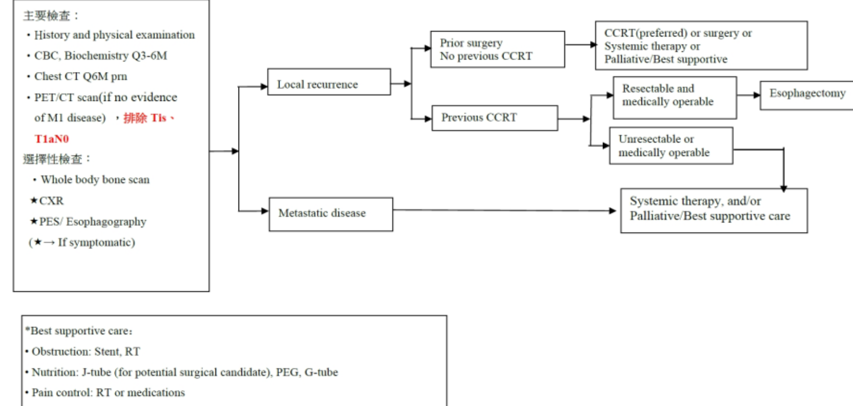


修改及新增



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PRINCIPLES OF SYSTEMIC THERAPY

Squamous Cell Carcinoma

Preoperative chemoradiation (Infusional Fluorouracil can be replaced with UFUR)

Preferred Regimens
• Paclitaxel and carboplatin (category 1)
• Fluorouracil and cisplatin (category 1)
Other Recommended Regimens
• Fluorouracil and carboplatin(eGFR≦60)

Neoadjuvant or Perioperative Immunotherapy

Useful in Certain Circumstances
• MSI-H/Dmmr tumors
• Nivolumab and iplimumab followed by nivolumab
• Pembrolizumab
• Tremelimumab and durvalumab for neoadjuvant therapy only

Definitive Chemoradiation (Infusional fluorouracil can be replaced with UFUR)

Preferred Regimens
• Paclitaxel and Carboplatin
• Fluorouracil and Cisplatin (category 1)
Other Recommended Regimens
• Cisplatin with Paclitaxel

Postoperative Systemic Therapy

Preferred Regimens
• Nivolumab only after preoperative chemoradiation with R0 resection and residual disease (category 1)
Other Recommended Regimens
for patient can't afford adjuvant ICI，may consider complete chemotherapy course(2-4 cycle)

Esophagogastric Junction adenocarcinoma

Perioperative Systemic Therapy (Infusional Fluorouracil can be replaced with Capecitabine or UFUR)

Preferred Regimens
• Fluorouracil,leucovorin, oxaliplatin, and docetaxel (FLOT) (category 1)

新增

PRINCIPLES OF SYSTEMIC THERAPY

Squamous Cell Carcinoma

Preoperative chemoradiation (Infusional Fluorouracil can be replaced with UFUR)

Preferred Regimens
• Paclitaxel and carboplatin (category 1)
• Fluorouracil and cisplatin (category 1)
Other Recommended Regimens
• Fluorouracil and carboplatin(eGFR≦60)

Neoadjuvant or Perioperative Immunotherapy

Useful in Certain Circumstances
• MSI-H/Dmmr tumors
• Nivolumab and iplimumab followed by nivolumab
• Pembrolizumab
• Tremelimumab and durvalumab for neoadjuvant therapy only

Definitive Chemoradiation (Infusional fluorouracil can be replaced with UFUR)

Preferred Regimens
• Paclitaxel and Carboplatin
• Fluorouracil and Cisplatin (category 1)
Other Recommended Regimens
• Cisplatin with Paclitaxel

Postoperative adjuvant CCRT (for direct operation without CCRT) (Infusional Fluorouracil can be replaced with UFUR)

Preferred Regimens
• Paclitaxel and carboplatin
• Fluorouracil and cisplatin
Other Recommended Regimens
• Fluorouracil and carboplatin(eGFR≦60)

Postoperative Systemic Therapy

Preferred Regimens
• Nivolumab only after preoperative chemoradiation with R0 resection and residual disease (category 1)

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PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA

First-Line Therapy

Preferred Regimens
- Fluoropyrimidine (fluorouracil or capecitabine), cisplatin, and nivolumab for PD-L1 CPS ≥1 (category 1)
- Fluoropyrimidine (fluorouracil or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1)
- Fluoropyrimidine (fluorouracil or capecitabine) and cisplatin
- Nivolumab and ipilimumab for PD-L1 CPS ≥1
- MSI-H/dMMR tumors (independent of PD-L1 status)
  Pembrolizumab
  Nivolumab and ipilimumab

Other Recommended Regimens
- Fluorouracil and irinotecan
- Paclitaxel with or without carboplatin or cisplatin
- Docetaxel with or without cisplatin
- Fluoropyrimidine(fluorouracil)
- Docetaxel, cisplatin or carboplatin, and fluorouracil

Useful in Certain Circumstances
- Entrectinib, larotrectinib, or repotrectinib for *NTRK* gene fusion-positive tumors (category 2B)

修改及新增

PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA

First-Line Therapy

Preferred Regimens
- Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and nivolumab for PD-L1 CPS ≥1 (category 1)
- Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1)
- Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1)
- Oxaliplatin, paclitaxel, and tislelizumab-jsgr for PD-L1 CPS ≥1
- Fluoropyrimidine (fluorouracil[a] l or capecitabine), cisplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1
- Cisplatin, paclitaxel, and tislelizumab-jsgr for PD-L1 CPS ≥1
- Fluoropyrimidine (fluorouracil[a] or capecitabine) and cisplatin
- Nivolumab and ipilimumab for PD-L1 CPS ≥1
- MSI-H/dMMR tumors (independent of PD-L1 status)
  Pembrolizumab
  Nivolumab and ipilimumab

Other Recommended Regimens
- Fluorouracil[a] and irinotecan
- Paclitaxel with or without carboplatin or cisplatin
- Docetaxel with or without cisplatin
- Fluoropyrimidine(fluorouracil[a])
- Docetaxel, cisplatin or carboplatin, and fluorouracil[a]

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PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA

First-Line Therapy
- **Oxaliplatin is generally preferred over Cisplatin due to lower toxicity.**

Preferred Regimens
- HER2 overexpression positive
  Fluoropyrimidine (fluorouracil or capecitabine), oxaliplatin, and trastuzumab
  Fluoropyrimidine (fluorouracil or capecitabine), oxaliplatin, trastuzumab, and pembrolizumab for PD-L1 CPS ≥1 (category 1)
  Fluoropyrimidine (fluorouracil or capecitabine), cisplatin, and trastuzumab (category 1)
  Fluoropyrimidine (fluorouracil or capecitabine), cisplatin, trastuzumab and pembrolizumab for PD-L1 CPS ≥1 (category 1)
- HER2 overexpression negative
  Fluoropyrimidine (fluorouracil or capecitabine), oxaliplatin, and nivolumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil or capecitabine), oxaliplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil or capecitabine), oxaliplatin, and zolbetuximab-clzb for CLDN18.2 positivec (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma)
  Fluoropyrimidine (fluorouracil or capecitabine) and oxaliplatin
  Fluoropyrimidine (fluorouracil or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil or capecitabine) and cisplatin
- MSI-H/dMMR tumors (independent of PD-L1 status)
  Pembrolizumab
  Nivolumab and ipilimumab
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and nivolumab
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and pembrolizumab

Other Recommended Regimens
- Fluorouracil and irinotecan
- Paclitaxel with or without carboplatin or cisplatin
- Docetaxel with or without cisplatin
- Fluoropyrimidine (fluorouracil or capecitabine)

Docetaxel, cisplatin or oxaliplatin, and fluorouracil

Useful in Certain Circumstances
Entrectinib, larotrectinib, or repotrectinib for *NTRK* gene fusion-positive tumors (category 2B)

修改及新增

PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA

First-Line Therapy
- **Oxaliplatin is generally preferred over Cisplatin due to lower toxicity.**

Preferred Regimens
- HER2 overexpression positive
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and trastuzumab
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, trastuzumab, and pembrolizumab for PD-L1 CPS ≥1 (category 1)
  Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and trastuzumab (category 1)
  Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, trastuzumab and pembrolizumab for PD-L1 CPS ≥1 (category 1)
- HER2 overexpression negative
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and nivolumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine(fluorouracil[a] or capecitabine), oxaliplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and zolbetuximab-clzb for CLDN18.2 positivec (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma)
  Fluoropyrimidine (fluorouracil[a] or capecitabine) and oxaliplatin
  Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5)
  Fluoropyrimidine (fluorouracil[a] or capecitabine) and cisplatin
- MSI-H/dMMR tumors (independent of PD-L1 status)
  Pembrolizumab
  Nivolumab and ipilimumab
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and nivolumab
  Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and pembrolizumab

Other Recommended Regimens
- Fluorouracil and irinotecan
- Paclitaxel with or without carboplatin or cisplatin
- Docetaxel with or without cisplatin
- Fluoropyrimidine (fluorouracil[a] or capecitabine)
- Docetaxel, cisplatin or oxaliplatin, and fluorouracil[a]

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PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA

Second-Line or Subsequent Therapy
- **Dependent on prior therapy and PS**

Preferred Regimens
- Nivolumab (category 1)
- Pembrolizumab for PD-L1 CPS ≥10 (category 1)
- Docetaxel (category 1)
- Paclitaxel (category 1)
- Irinotecan (category 1)
- Fluorouracil and irinotecan

Other Recommended Regimens
- Irinotecan and cisplatin
- Docetaxel and irinotecan (category 2B)

Useful in Certain Circumstances
- Entrectinib, larotrectinib, or repotrectinib for NTRK gene fusion-positive tumors
- Pembrolizumab for MSI-H/dMMR tumors
- Nivolumab and ipilimumab for MSI-H/dMMR tumors
- Pembrolizumab for TMB-high (TMB-H) (≥10 mutations/megabase) tumors
- Dabrafenib and trametinib for BRAF V600E-mutated tumors
- Selpercatinib for RET gene fusion-positive tumors

修改及新增

PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA

Second-Line or Subsequent Therapy
- **Dependent on prior therapy and PS**

Preferred Regimens
- Nivolumab (category 1)
- Pembrolizumab for PD-L1 CPS ≥10 (category 1)
- Docetaxel (category 1)
- Paclitaxel (category 1)
- Irinotecan (category 1)
- Tislelizumab-jsgr (category 1)
- Fluorouracil and irinotecan

Other Recommended Regimens
- Irinotecan and cisplatin
- Docetaxel and irinotecan (category 2B)

Useful in Certain Circumstances
- Entrectinib, larotrectinib, or repotrectinib for NTRK gene fusion-positive tumors
- Pembrolizumab for MSI-H/dMMR tumors
- Nivolumab and ipilimumab for MSI-H/dMMR tumors
- Pembrolizumab for TMB-high (TMB-H) (≥10 mutations/megabase) tumors
- Dabrafenib and trametinib for BRAF V600E-mutated tumors
- Selpercatinib for RET gene fusion-positive tumors

第 25、26 頁

原文：

NONE

新增

Postoperative adjuvant CCRT (for direct operation without CCRT)

PREFERRED REGIMENS

Paclitaxel + Carboplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	50 mg/m²	IV	D1	Weekly for 5 weeks	
Carboplatin	AUC 2	IV	D1		
Ref.	*Ni, W., Yu, S., Xiao, Z., Zhou, Z., Chen, D., Feng, Q., Liang, J., Lv, J., Gao, S., Mao, Y., Xue, Q., Sun, K., Liu, X., Fang, D., Li, J., Wang, D., Zhao, J., & Gao, Y. (2021). Postoperative adjuvant therapy versus surgery alone for stage IIB–III esophageal squamous cell carcinoma: A phase III randomized controlled trial. The Oncologist, 26(12), e2151–e2160.* *Chen, J., Pan, J., Liu, J., Li, J., Zhu, K., Zheng, X., Chen, M., Chen, M., & Liao, Z. (2013). Postoperative radiation therapy with or without concurrent chemotherapy for node-positive thoracic esophageal squamous cell carcinoma. International Journal of Radiation Oncology, Biology, Physics, 86(4), 671–677. https://doi.org/10.1016/j.ijrobp.2013.03.004*					

Fluorouracil and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	60 - 80 mg/m²	IV	D1	Cycled every 28 days for 2 cycles	
Fluorouracil (5-FU)	600 - 800 mg/m²/day	IV	continuous infusion over 24 hours daily,D1-4		
or					
Cisplatin/or carboplatin (AUC 3)	30 - 40 mg/m²	IV	D1	Cycled every 14 days for 3 cycles	
Fluorouracil (5-FU)	1200 -1600 mg/m²	IV	drip 46-48 hours, D1-2		
or					
Cisplatin	30mg/m²	IV	D1	Weekly for 5 weeks	
Fluorouracil (5-FU)	800 mg/m²	IV	continuous infusion over 24 hours daily,D1		
Ref.	*Adelstein, D. J., Rice, T. W., Rybicki, L. A., Saxton, J. P., Videtic, G. M. M., Murthy, S. C., Mason, D. P., Rodriguez, C. P., & Ives, D. I. (2009). Mature results from a phase II trial of postoperative concurrent chemoradiotherapy for poor prognosis cancer of the esophagus and gastroesophageal junction. Journal of Thoracic Oncology, 4(10), 1264–1269. https://doi.org/10.1097/JTO.0b013e3181b9c8f2* *Zhang, W.-W., Zhu, Y.-J., Yang, H., Wang, Q.-X., Wang, X.-H., Xiao, W.-W., Li, Q.-Q., Liu, M.-Z., & Hu, Y.-H. (2015). Concurrent radiotherapy and weekly chemotherapy of 5-fluorouracil and platinum agents for postoperative locoregional recurrence of oesophageal squamous cell carcinoma. Scientific Reports, 5, 8071.*					

Cisplatin +UFUR

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	25 - 30 mg/m²	IV	D1	Weekly for 5 weeks	不願 24-48 小時注射或
UFUR	200-250 mg/m²/day	PO	Bid,D1-5		不適合放置人工血管
Ref.	*Iwase, H., Shimada, M., Nakamura, M., Nakarai, K., Iyo, T., Kaida, S., Indo, T., Kato, E., Horiuchi, Y., & Kusugami, K. (2003). Concurrent chemoradiotherapy for locally advanced and metastatic esophageal cancer: Long-term results of a phase II study of UFT/CDDP with radiotherapy. International Journal of Clinical Oncology, 8(5), 305–311.*					

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原文：

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) + nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	80 mg/m²	IV	D1	every 28days	
Fluorouracil (5-FU)	800 mg/m² /day	IV	continuous infusion over 24 hours daily,D1-5		
nivolumab	240mg	IV		every 14 days	per study maximum of 2 years
Ref.	*Doki Y, Ajani JA, Kato K, et al. Nivolumab combination therapy in advanced esophageal squamous-cell carcinoma. N Engl J Med 2022;386:449-462.*				

修改及新增

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) + nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	80 mg/m²	IV	D1	every 28days	
Fluorouracil (5-FU)	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4		
nivolumab	240mg	IV		every 14 days	per study maximum of 2 years
Ref.	*Doki Y, Ajani JA, Kato K, et al. Nivolumab combination therapy in advanced esophageal squamous-cell carcinoma. N Engl J Med 2022;386:449-462.*				

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原文：

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m²	IV	D1	every 21days for up to 6cycles	
Fluorouracil (5-FU)	800 mg/m² /day	IV	continuous infusion over 24 hours daily on Days 1–5		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

修改及新增

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m²	IV	D1	every 21days for up to 6cycles	
Fluorouracil (5-FU)	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

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NONE

新增

Tislelizumab-jsgr with (fluoropyrimidine or taxol) and (oxaliplatin or cisplatin)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
+					
Oxaliplatin	85 mg/m2	IV	on Day 1	Cycled every 14 days For 12cycles	
Leucovorin	200 mg/m2	IV	continuous infusion over 24 hours on D1		
Fluorouracil	1200 mg/m2/day	IV	continuous infusion over 24 hours on D1、D2		
or					
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)		
or					
Cisplatin	60-80 mg/m2	IV	on D 1	Cycled every 21 days for 6 cycles	
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours on Day 1-4		
or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14		
or					
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)	Cycled every 21 days	
Paclitaxel	175mg/m2	IV	D1		
or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Paclitaxel	175mg/m2	IV	D1		
Ref.	1. Qiu MZ, Oh DY, Kato K, et al. RATIONALE-305,Investigators. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first line treatment for advanced gastric or gastro- oesophageal junction adenocarcinoma:RATIONALE-305 randomised, double blind, phase 3 trial. BMJ 2024;385:e078876. 2. Xu J, Kato K, Raymond E, et al. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first-line treatment for advanced or metastatic oesophageal squamous cell carcinoma (RATIONALE-306): a global, randomised, placebo-controlled, phase 3 study. Lancet Oncol 2023;24:483-495.				

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Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	800mg/m2	IV	IV continuous infusion over 24 hours daily on Days 1-5	Cycled every 28 days	
Ref.	1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328. 2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59. 3. Hong YS, Song SY, Lee SI, et al. A phase II trial of capecitabine in previously untreated patients with advanced and/or metastatic gastric cancer. Ann Oncol 2004;15:1344-1347.				

修改及新增

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	D1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4	Cycled every 28 days	
Ref.	1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328. 2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59. 3. Hong YS, Song SY, Lee SI, et al. A phase II trial of capecitabine in previously untreated patients with advanced and/or metastatic gastric cancer. Ann Oncol 2004;15:1344-1347.				

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Trastuzumab and pembrolizumab with fluoropyrimidine and oxaliplatin or fluoropyrimidine and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	8 mg/kg loading dose on Day 1 of cycle 1, then 6 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 21 days	HER2 overexpression-positive
Pembrolizumab	200 mg	IV	on Day 1	Cycled every 3 weeks	
Ref.	1. Janjigian YY, Kawazoe A, Bai Y, et al. Pembrolizumab plus trastuzumab and chemotherapy for HER2-positive gastric or gastro-oesophageal junction adenocarcinoma: interim analyses from the phase 3 KEYNOTE-811 randomised placebo-controlled trial. Lancet 2023;402:2197-2208. 2. Bang YJ, Van Cutsem E, Feyereislova A, et al. Trastuzumab in combination with chemotherapy versus chemotherapy alone for treatment of HER2- positive advanced gastric or gastro-oesophageal junction cancer (ToGA): a phase 3, open-label, randomised controlled trial. Lancet 2010;376:687- 697. 3. Janjigian YY, Kawazoe A, Yanez P, et al. The KEYNOTE-811 trial of dual PD-1 and HER2 blockade in HER2-positive gastric cancer. Nature 2021;600:727-730.				
+					
Capecitabine	850–1000 mg/m2	PO	BID,D1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Fluorouracil	800 mg/m2/day	IV	continuous infusion over 24 hours daily on Days 1–5		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Capecitabine	850–1000 mg/m2	PO	Bid,D1–14		

修改及新增

Trastuzumab and pembrolizumab with fluoropyrimidine and oxaliplatin or fluoropyrimidine and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	8 mg/kg loading dose on Day 1 of cycle 1, then 6 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 21 days	HER2 overexpression-positive
Pembrolizumab	200 mg	IV	on Day 1	Cycled every 3 weeks	
Ref.	1. Janjigian YY, Kawazoe A, Bai Y, et al. Pembrolizumab plus trastuzumab and chemotherapy for HER2-positive gastric or gastro-oesophageal junction adenocarcinoma: interim analyses from the phase 3 KEYNOTE-811 randomised placebo-controlled trial. Lancet 2023;402:2197-2208. 2. Bang YJ, Van Cutsem E, Feyereislova A, et al. Trastuzumab in combination with chemotherapy versus chemotherapy alone for treatment of HER2- positive advanced gastric or gastro-oesophageal junction cancer (ToGA): a phase 3, open-label, randomised controlled trial. Lancet 2010;376:687- 697. 3. Janjigian YY, Kawazoe A, Yanez P, et al. The KEYNOTE-811 trial of dual PD-1 and HER2 blockade in HER2-positive gastric cancer. Nature 2021;600:727-730.				
+					
Capecitabine	850–1000 mg/m2	PO	BID,D1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Fluorouracil	750-1000 mg/m2/day	IV	continuous infusion over 24 hours daily on Days 1–4		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Capecitabine	850–1000 mg/m2	PO	Bid,D1–14		

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Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for 6cycles	
Fluorouracil (5-FU)	800 mg/m^2 /day	IV	continuous infusion over 24 hours daily on Days 1–5		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

修改及新增

Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for 6cycles	
Fluorouracil (5-FU)	750-1000 mg/m^2 /day	IV	continuous infusion over 24 hours daily on Days 1–4		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

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NONE

新增

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)
ADENOCARCINOMA (FIRST-LINE THERAPY)

Tislelizumab-jsgr with fluoropyrimidine and oxaliplatin or cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
+					
Oxaliplatin	85 mg/m2	IV	on Day 1	Cycled every 14 days For 12cycles	
Leucovorin	200 mg/m2	IV	continuous infusion over 24 hours on D1		
Fluorouracil	1200 mg/m2/day	IV	continuous infusion over 24 hours on D1、D2		
or					
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)		
or					
Cisplatin	60-80 mg/m2	IV	on D 1	Cycled every 21 days for 6 cycles	
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours on Day 1-4		
or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14		
Ref.	*1. Qiu MZ, Oh DY, Kato K, et al. RATIONALE-305,Investigators. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first line treatment for advanced gastric or gastro- oesophageal junction adenocarcinoma:RATIONALE-305 randomised, double blind, phase 3 trial. BMJ 2024;385:e078876. 2. Xu J, Kato K, Raymond E, et al. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first-line treatment for advanced or metastatic oesophageal squamous cell carcinoma (RATIONALE-306): a global, randomised, placebo-controlled, phase 3 study. Lancet Oncol 2023;24:483-495.*				

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Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	800mg/m2	IV	IV continuous infusion over 24 hours daily on Days 1-5	Cycled every 28 days	
Ref.	*1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328. 2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59.*				

修改及新增

Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	750-1000mg/m2	IV	IV continuous infusion over 24 hours daily on Days 1-4	Cycled every 28 days	
Ref.	*1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328. 2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59.*				

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NONE

新增

Tislelizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
Ref.	*1. Ajani J, El Hajbi F, Cunningham D, et al. Tislelizumab versus chemotherapy as second- line treatment for European and North American patients with advanced or metastatic esophageal squamous cell carcinoma: a subgroup analysis of the randomized phase III RATIONALE-302 study.ESMO Open 2024;9:102202.Esophageal Squamous Cell Carcinoma (RATIONALE-302): A Randomized Phase III Study. J Clin Oncol 2022;40:3065-3076. 2 Shen L, Kato K, Kim SB, et al. Tislelizumab Versus Chemotherapy as Second-Line Treatment for Advanced or Metastatic Esophageal Squamous Cell Carcinoma (RATIONALE-302): A Randomized Phase III Study. J Clin Oncol 2022;40:3065-3076.*				

第 70 頁	八、放射治療原則 **Treatment Regimen** CCRT： Definitive RT：Total dose of 45–66 Gy. Neoadjuvant / Adjuvant RT：Total dose of 41.4–54 Gy. Note：Radiotherapy should be delivered using intensity-modulated radiotherapy or more advanced techniques. Chun, S. G., Skinner, H. D., & Minsky, B. D. (2017). Radiation therapy for locally advanced esophageal cancer. Surgical Oncology Clinics, 26(2), 257-276.	修改及新增 八、放射治療原則 **Treatment Regimen** CCRT： Definitive RT：Total dose of 45–60 Gy. Neoadjuvant / Adjuvant RT：Total dose of 41.4–54 Gy. Note：Radiotherapy should be delivered using intensity-modulated radiotherapy or more advanced techniques. Chun, S. G., Skinner, H. D., & Minsky, B. D. (2017). Radiation therapy for locally advanced esophageal cancer. Surgical Oncology Clinics, 26(2), 257-276. 備註：若個別病人因不同臨床狀況，有需要其他非指引設定之劑量者，需提案至多專科團隊會議討論備案方可執行。

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一、前言

根據統計，癌症為台灣十大死因首位，其中食道癌為十大癌症死因第九位。台灣地區九成食道癌屬鱗狀上皮細胞癌，其次為腺癌，好發於 50-70 歲人群，男性多於女性，致病原因和個人體質、生活習慣、飲食及環境皆有關聯。以喜歡吃刺激、醃製性或溫度較高食物者；或攝取蔬菜水果或維他命 A、C 不足者、微量元素如鋅的缺乏；此外高梁、玉米及茶葉中的鞣酸（Tan-nin），也被列為與食道癌有關的物質；飲水及食物中若含有過量的亞硝基氨（Nitrosamine），亦被證實會增加食道癌發生的風險。喝酒亦是食道癌的高危險因子，統計顯示喝酒引發食道癌是一般人的 2-4 倍，若合併菸、檳榔則罹癌風險高達 40 倍。胃食道逆流症或巴瑞特氏食道的患者，由於胃液反覆逆流到食道，長期刺激下，在食道下 1/3 段亦使黏膜受損造成食道癌，此類以腺癌占多數。曾患頭頸癌的患者，根據統計其發生的第二癌症，有 1/3 是在食道發生，兩者皆與吸菸有關。食道弛緩不能（食道擴約肌的運動能力降低）的患者，比一般人發生食道癌的機率高出 6-14%。曾有食道腐蝕性傷害，也較易引起食道癌的產生，其位置常見於食道中段。食道有豐富淋巴結及血流供應，多數患者因胃食道逆流、吞嚥困難及疼痛就診時，已是食道癌中晚期，且常併有體重減輕和營養不良等問題。

二、臨床症狀

1. 吞嚥困難：大多數患者，第一個症狀是在吃肉、麵包或粗糙的食物（如生蔬菜）時會覺得不易下嚥且不順暢的感覺，甚至會感到食物卡在胸骨的後方。隨著腫瘤生長，會使得食道漸漸變狹窄，先是不能吃乾飯，繼而連稀飯及液體也難以下嚥。
2. 體重減輕：由於食道阻塞造成患者吞嚥困難，身體的營養吸收不足，造成身體衰弱、體重減輕是必然的現象。
3. 呼吸有臭味：若食道被腫瘤完全阻塞後，食物會蓄積在腫瘤的上方，使得食物發酵而散發出惡臭。
4. 咳嗽：因唾液聚積在腫瘤上方，造成聚積的唾液或食物被吸入氣管而引起咳嗽，夜晚平躺時常會加重而使患者無法入睡。當腫瘤持續變大，可能穿出食道壁而產生食道氣管瘻管，此時進食將會引發吸入性肺炎及相關合併症。
5. 聲音嘶啞：因腫瘤壓迫到聲帶。
6. 胸痛：如果腫瘤擴展至胸腔後壁，進而侵犯到肋間神經時，患者常會有無法忍受的胸痛。
7. 大出血：若腫瘤侵犯到鄰近的大動脈時，會使大動脈破裂而產生大出血情形，是食道癌常見的致命原因之一。

三、診斷檢查

1. 胸部 X 光（Chest X-ray）：由 X 光片中了解食道以及胸腔的形狀是否有異常。
2. 食道攝影（Esophagography）：患者必須喝下鋇劑顯影劑，以觀察食物流經食道的方式，因鋇劑可附著在食道表面，透過 X 光而使病灶顯現出來。另外，本檢查可以評估食道癌所侵犯的長度範圍以及食道癌和其他相關構造的關係。若是出現食道癌，則會出現出連續不規則、模糊的連黏膜邊緣或管腔狹窄，而在阻塞處上方會有擴張的現象。但若懷疑有食道氣管瘻管，則不宜使用鋇劑顯影劑，須改用水溶性顯影劑。
3. 上消化道泛內視鏡檢查（Upper G-I panendoscopy）及內視鏡超音波檢查 (endoscopic ultrasound)：可詳細的觀察癌之表面與其浸潤的廣度，評估發生的位置以及食道內阻塞的情形。做此檢查時，喉嚨會先採局部噴霧麻醉，以減少不適及嘔吐的感覺。然後醫師會以內視鏡從口腔經喉嚨進入食道，透過食道鏡取下食道腫瘤的部份組織病理切片檢查。故上消化道泛內視鏡檢查及病理切片檢查是確立診斷的最重要檢查。
4. 胸部電腦斷層攝影（Chest CT）或腹部電腦斷層攝影（Abdomen CT）：可得知腫瘤的厚度、長度、周圍組織的侵犯程度，及局部淋巴腺有無侵犯或有無其它器官轉移的情形。

5. 其他檢查：腹部超音波、正子放射斷層攝影（PET）、全身骨骼掃描（Whole body bone scan）等評估食道癌是否可能轉移。

四、病理組織分類、食道癌分期

食道癌分為鱗狀細胞癌（Squamous cell carcinoma）和腺癌（Adenocarcinoma）。目前有許多工具可用來做食道癌的分期，最常見的就是內視鏡超音波，依據內視鏡或上消化道攝影的發現，可獲得腫瘤的大小、位置、外觀等資訊。電腦斷層掃描也常用來分期，特別是腫瘤小於 5 公分時，用處更大。它可顯現癌細胞是否擴及附近的淋巴結或肺臟，腫瘤是否穿入氣管，或是有遠處轉移等。

在本院，則安排細徑（迷你）探頭式內視鏡超音波（Miniprobe Endoscopic Ultrasound；EUS），以了解腫瘤侵犯的深度。而侵犯深度是決定五年存活的重要因素，也是預測外科手術是否能介入的關鍵。

目前根據美國癌症聯合委員會（AJCC）第八版分期法，分期如下：

Primary Tumor(T)

TX	Primary tumor can not be assessed
T0	No evidence of primary tumor
Tis	High-grade dysplasia, defined as malignant cells confined to the epithelium by the basement membrane
T1	Tumor invades lamina propria, muscularis mucosae, or submucosa
T1a	Tumor invades lamina propria or muscularis mucosae
T1b	Tumor invades the submucosa
T2	Tumor invades muscularis propria
T3	Tumor invades adventitia
T4	Tumor invades adjacent structures
T4a	Tumor invades pleura, pericardium, azygos vein, diaphragm, or peritoneum
T4b	Tumor invades other adjacent structures, such as aorta, vertebral body,-or airway

Regional Lymph Nodes(N)

NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Metastasis in 1-2 regional lymph nodes
N2	Metastasis in 3-6 regional lymph nodes
N3	Metastasis in seven or more regional lymph nodes

Distant Metastasis(M)

M0	No distant metastasis
M1	Distant metastasis

Histologic Grade(G)

GX	Grade cannot be assessed
G1	Well differentiated
G2	Moderately differentiated
G3	Poorly differentiated, undifferentiated

Squamous Cell Carcinoma

Location	**Location Criteria**
X	Location unknown
Upper	Cervical esophagus to lower border of azygos vein
Middle	Lower border of azygos wein to lower border of inferior pulmonary vein
Lower	Lower border of inferior pulmonary vein to stomach, including gastroesophageal junction

Squamous Cell Carcinoma

Clinical Staging (cTNM)

	cT	cN	M
Stage 0	Tis	N0	M0
Stage I	T1	N0-1	M0
Stage II	T2	N0-1	M0
	T3	N0	M0
Stage III	T3	N1	M0
	T1-3	N2	M0
Stage IVA	T4	N0-2	M0
	Any T	N3	M0
Stage IVB	Any T	Any N	M1

Pathological (pTNM)

	pT	pN	M	G	Location
Stage 0	Tis	N0	M0	N/A	Any
Stage IA	T1a	N0	M0	G1/GX	Any
Stage IB	T1a	N0	M0	G2-3	Any
	T1b	N0	M0	G1-3/GX	Any
	T2	N0	M0	G1	Any
Stage IIA	T2	N0	M0	G2-3/GX	Any
	T3	N0	M0	G1-3	lower
	T3	N0	M0	G1	upper/middle
Stage IIB	T3	N0	M0	G2-3	upper/middle
	T3	N0	M0	GX	lower/upper/middle
	T3	N0	M0	Any	Location X
	T1	N1	M0	Any	Any
Stage IIIA	T1	N2	M0	Any	Any
	T2	N1	M0	Any	Any
Stage IIIB	T2	N2	M0	Any	Any
	T3	N1-2	M0	Any	Any
	T4a	N0-1	M0	Any	Any
Stage IVA	T4a	N2	M0	Any	Any
	T4b	N0-2	M0	Any	Any
	Any T	N3	M0	Any	Any
Stage IVB	Any T	Any N	M1	Any	Any

Postneoadjuvant Therapy (ypTNM)

	ypT	ypN	M
Stage I	T0-2	N0	M0
Stage II	T3	N0	M0
Stage IIIA	T0-2	N1	M0
Stage IIIB	T3	N1	M0
	T0-3	N2	M0
	T4a	N0	M0
Stage IVA	T4a	N1-2/NX	M0
	T4b	N0-2	M0
	Any T	N3	M0
Stage IVB	Any T	Any N	M1

Adenocarcinoma

Clinical Staging (cTNM)			
	cT	**cN**	**M**
Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage IIA	T1	N1	M0
Stage IIB	T2	N0	M0
Stage III	T2	N1	M0
	T3	N0-1	M0
	T4a	N0-1	M0
Stage IVA	T1-4a	N2	M0
	T4b	N0-2	M0
	Any T	N3	M0
Stage IVB	Any T	Any N	M1

Pathological (pTNM)				
	pT	**pN**	**M**	**G**
Stage 0	Tis	N0	M0	N/A
Stage IA	T1a	N0	M0	G1
	T1a	N0	M0	GX
Stage IB	T1a	N0	M0	G2
	T1b	N0	M0	G1-2
	T1b	N0	M0	GX
Stage IC	T1	N0	M0	G3
	T2	N0	M0	G1-2
Stage IIA	T2	N0	M0	G3
	T2	N0	M0	GX
Stage IIB	T1	N1	M0	Any
	T3	N0	M0	Any
Stage IIIA	T1	N2	M0	Any
	T2	N1	M0	Any
Stage IIIB	T2	N2	M0	Any
	T3	N1-2	M0	Any
	T4a	N0-1	M0	Any
Stage IVA	T4a	N2	M0	Any
	T4b	N0-2	M0	Any
	Any T	N3	M0	Any
Stage IVB	Any T	Any N	M1	Any

Postneoadjuvant Therapy (ypTNM)			
	ypT	**ypN**	**M**
Stage I	T0-2	N0	M0
Stage II	T3	N0	M0
Stage IIIA	T0-2	N1	M0
Stage IIIB	T3	N1	M0
	T0-3	N2	M0
	T4a	N0	M0
Stage IVA	T4a	N1-2	M0
	T4a	NX	M0
	T4b	N0-2	M0
	Any T	N3	M0
Stage IVB	Any T	Any N	M1

五、巴瑞特氏食道治療指引

Endoscopy

Barrett's Esophagus

Early ACA*

HGD*

LGD*

No dysplasia

Re-endoscopy 6 months

除 Radiofrequency Ablation (RFA)，也可考慮 EMR or ESD

Follow-up
Every 1 year

Tis and
T1N0

Esophagectomy

Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Radiofrequency Ablation (RFA)

Follow-up
Every 2-3 years

Can apply esophageal Radiofrequency Ablation (RFA) if exceed M3 Barrett's Esophagus

Endoscopic submucosal dissection (ESD)為主
Alternative:Endoscopic mucosal resection (EMR) or Radiofrequency Ablation (RFA)

*ACA, adenocarcinoma ;

*HGD, high-grade dysplasia ;

*LGD, Low-grade dysplasia

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

六、食道癌治療指引 (Squamous Cell Carcinoma)

WORK-UP	EVALUATION	TREATMENT

WORK-UP

主要檢查：
- History and physical examination
  CBC and chemistry profile
- EGD and biopsy
- Chest or Abdominal CT / MRI
- PET/CT scan(if no evidence of M1 disease)，排除 Tis、T1aN0

選擇性檢查：
- -EUS
- -Whole body bone scan
- - Esophagography and/or upper GI series
- -Upper abdominal sonography
- -bronchoscopy: for cervix, upper and/or middle third
- -next-generation sequencing (NGS)

EVALUATION → TREATMENT

- pTis → Ablation; or → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
- pT1aN0 → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
- cT1b-T2, N0 (low risk*) →
  - Medically unfit and resectable or p't refuses surgery → CCRT
  - Medically fit and resectable → Surgery →
    - R0 → pT+ N+ or ypT0,N0 → Observe and F/U
    - R0 → ypT+ and/or N+ → Nivolumab (category 1) or C/T
    - R1、R2 → CCRT (If no previous CCRT) Palliative management
- cT2N0 (high risk*) cT1b-T2, N+ →
  - Medically fit and resectable → Surgery
  - Neo-adjuvant CCRT → Re-evaluation → Medically fit and resectable → Surgery; or → Inoperable, or Surgery refused → Systemic therapy, and/or Palliative/Best supportive care
  - Definitive CCRT
  - unable to tolerate CCRT → Palliative RT; or → Systemic therapy, and/or Palliative/Best supportive care
- cT3-T4a, any N → Neo-adjuvant CCRT; Definitive CCRT; unable to tolerate CCRT; Systemic therapy, and/or Palliative/Best supportive care
- cT4b*, N+ → Definitive CCRT; unable to tolerate CCRT; Systemic therapy, and/or Palliative/Best supportive care
- cM1 → Systemic therapy, and/or Palliative/Best supportive care

***Low risk: <3cm, well differentiated.**
***High risk: ≥3cm, poorly differentiated,LVI(+)**
***cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels or heart**

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

食道癌治療指引 (Adenocarcinoma)

WORK-UP	EVALUATION	TREATMENT

主要檢查：
- History and physical examination
- CBC and chemistry profile
- EGD and biopsy
- Chest or Abdominal CT / MRI
- PET/CT scan(if no evidence of M1 disease) ，排除 Tis、T1aN0

選擇性檢查：
- -EUS
- -Whole body bone scan
- - Esophagography and/or upper GI series
- -Upper abdominal sonography
- -bronchoscopy: for cervix, upper and/or middle third
- -next-generation sequencing (NGS)

- pTis → Ablation; Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
- pT1a,N0 / Superficial pT1b → Endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) or Esophagectomy
- cT1b-T2, N0 (low risk*) → Medically unfit and resectable or p't refuses surgery → CCRT; Medically fit and resectable → Surgery
- cT2 N0(high risk*) / cT1b-T2, N+ → Medically fit and resectable → Surgery; Perioperative systemic therapy (preferred); Neo-adjuvant CCRT; neoadjuvant or perioperative ICI; Definitive CCRT
- cT3-T4a, any N → Perioperative systemic therapy (preferred); Neo-adjuvant CCRT; neoadjuvant or perioperative ICI; Definitive CCRT
- Perioperative systemic therapy / Neo-adjuvant CCRT / neoadjuvant or perioperative ICI → Re-evaluation → Surgery; Inoperable, or refused surgery → Systemic therapy, and/or Palliative/Best supportive care
- Surgery →
  - N(-) → pTis-pT1,2 → Observe and F/U; pT3, pT4a → CT/CCRT/Observe
  - N(+) → CT/CCRT/Observe
  - R0 → ypT0, N0 → Systemic therapy, if received perioperatively (category 1); ypT+, N+ → Systemic therapy, if received perioperatively (category 1); Nivolumab ,if neo-CCRT received (category 1)
  - R1、R2 resection → CCRT, If no previous CCRT; Palliative management
- cT4b, N+ → Definitive CCRT; unable to tolerate CCRT → Palliative RT; Systemic therapy, and/or Palliative/Best supportive care
- cM1 → Systemic therapy, and/or Palliative/Best supportive care

***Low risk: <3cm, well differentiated.**
***High risk: ≥3cm, poorly differentiated,LVI(+)**
***cT4b:Consider chemotherapy alone in the setting of invasion of trachea, great vessels , or heart**

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
註 2：Adenocarcinoma of EGJ 參考胃癌診療指引
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

FOLLOW-UP	RECURRENCE	PALLIATIVE THERAPY

主要檢查：
- History and physical examination
- CBC, Biochemistry Q3-6M
- Chest CT Q6M prn
- PET/CT scan(if no evidence of M1 disease) ，排除 Tis、T1aN0

選擇性檢查：
- Whole body bone scan
- ★CXR
- ★PES/ Esophagography

(★→ If symptomatic)

→ Local recurrence
- → Prior surgery / No previous CCRT → CCRT(preferred) or surgery or Systemic therapy or Palliative/Best supportive
- → Previous CCRT
  - → Resectable and medically operable → Esophagectomy
  - → Unresectable or medically operable → Systemic therapy, and/or Palliative/Best supportive care

→ Metastatic disease → Systemic therapy, and/or Palliative/Best supportive care

*Best supportive care：
- Obstruction: Stent, RT
- Nutrition: J-tube (for potential surgical candidate), PEG, G-tube
- Pain control: RT or medications

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

七、化學治療原則

(一) PRINCIPLES OF SYSTEMIC THERAPY

- 根據患者體能狀態、合併症和毒性反應選擇，對於晚期食道癌患者以三種藥物合併使用前，應確定患者的體能狀況良好（ECOG PS 0~1），並須定期進行毒性評估。
- 若有證據支持毒性更低且療效不受影響時，則優先選擇第 1 類（category 1）方案或使用第 2A、2B 類。
- 任何方案的劑量和用藥方案若不是來自第 1 類證據，則只能作為建議，應根據具體情況進行適當修改。
- 靜脈滴注 5-FU 和口服 capecitabine 可互換使用。與口服 capecitabine 相比，應優選靜脈持續滴注 5-FU。
- 完成化療後，應該評估療效和晚期併發症。

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PRINCIPLES OF SYSTEMIC THERAPY

Squamous Cell Carcinoma
Preoperative chemoradiation (Infusional Fluorouracil can be replaced with UFUR)
Preferred Regimens • Paclitaxel and carboplatin (category 1) • Fluorouracil and cisplatin (category 1) Other Recommended Regimens • Fluorouracil and carboplatin(eGFR≤60)
Neoadjuvant or Perioperative Immunotherapy
Useful in Certain Circumstances • MSI-H/Dmmr tumors • Nivolumab and iplimumab followed by nivolumab • Pembrolizumab • Tremelimumab and durvalumab for neoadjuvant therapy only
Definitive Chemoradiation (Infusional fluorouracil can be replaced with UFUR)
Preferred Regimens • Paclitaxel and Carboplatin • Fluorouracil and Cisplatin (category 1) Other Recommended Regimens • Cisplatin with Paclitaxel
Postoperative adjuvant CCRT (for direct operation without CCRT) (Infusional Fluorouracil can be replaced with UFUR)
Preferred Regimens • Paclitaxel and carboplatin • Fluorouracil and cisplatin Other Recommended Regimens • Fluorouracil and carboplatin(eGFR≤60)
Postoperative Systemic Therapy
Preferred Regimens • Nivolumab only after preoperative chemoradiation with R0 resection and residual disease (category 1)

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

Other Recommended Regimens for patient can't afford adjuvant ICI，may consider complete chemotherapy course(2-4 cycle)
Esophagogastric Junction adenocarcinoma
Perioperative Systemic Therapy (Infusional Fluorouracil can be replaced with Capecitabine or UFUR)
Preferred Regimens • Fluorouracil,leucovorin, oxaliplatin, and docetaxel (FLOT) (category 1) • FLOT + durvalumab for PD-L1 CPS ≥1 or TAP ≥1% (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma) Other Recommended Regimens • Fluorouracil and cisplatin (category 1) • Fluoropyrimidine and oxaliplatin

The selection, dosing, and administration of anticancer agents and the management of associated toxicities are complex. Modifications of drug dose and schedule and initiation of supportive care interventions are often necessary because of expected toxicities and because of individual patient variability, prior treatment, nutritional status, and comorbidity. The optimal delivery of anticancer agents therefore requires a health care delivery team experienced in the use of anticancer agents and the management of associated toxicities in patients with cancer.

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PRINCIPLES OF SYSTEMIC THERAPY
Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA
First-Line Therapy
Preferred Regimens • Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and nivolumab for PD-L1 CPS ≥1 (category 1) • Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1) • Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1) • Oxaliplatin, paclitaxel, and tislelizumab-jsgr for PD-L1 CPS ≥1 • Fluoropyrimidine (fluorouracil[a] l or capecitabine), cisplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 • Cisplatin, paclitaxel, and tislelizumab-jsgr for PD-L1 CPS ≥1 • Fluoropyrimidine (fluorouracil[a] or capecitabine) and cisplatin • Nivolumab and ipilimumab for PD-L1 CPS ≥1 • MSI-H/dMMR tumors (independent of PD-L1 status) Pembrolizumab Nivolumab and ipilimumab
Other Recommended Regimens • Fluorouracil[a] and irinotecan • Paclitaxel with or without carboplatin or cisplatin • Docetaxel with or without cisplatin • Fluoropyrimidine(fluorouracil[a]) • Docetaxel, cisplatin or carboplatin, and fluorouracil[a]

[a] Leucovorin is indicated with certain fluorouracil-based regimens. Depending on availability, these regimens may be used with or without leucovorin.

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PRINCIPLES OF SYSTEMIC THERAPY

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA
First-Line Therapy • **Oxaliplatin is generally preferred over Cisplatin due to lower toxicity.**
Preferred Regimens • HER2 overexpression positive Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and trastuzumab Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, trastuzumab, and pembrolizumab for PD-L1 CPS ≥1 (category 1) Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and trastuzumab (category 1) Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, trastuzumab and pembrolizumab for PD-L1 CPS ≥1 (category 1) • HER2 overexpression negative Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and nivolumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5) Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5) Fluoropyrimidine(fluorouracil[a] or capecitabine), oxaliplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5) Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and zolbetuximab-clzb for CLDN18.2 positivec (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma) Fluoropyrimidine (fluorouracil[a] or capecitabine) and oxaliplatin Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and pembrolizumab for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5) Fluoropyrimidine (fluorouracil[a] or capecitabine), cisplatin, and tislelizumab-jsgr for PD-L1 CPS ≥1 (category 1 for PD-L1 CPS ≥5) Fluoropyrimidine (fluorouracil[a] or capecitabine) and cisplatin • MSI-H/dMMR tumors (independent of PD-L1 status) Pembrolizumab Nivolumab and ipilimumab Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and nivolumab Fluoropyrimidine (fluorouracil[a] or capecitabine), oxaliplatin, and pembrolizumab
Other Recommended Regimens • Fluorouracil and irinotecan • Paclitaxel with or without carboplatin or cisplatin • Docetaxel with or without cisplatin • Fluoropyrimidine (fluorouracil[a] or capecitabine) • Docetaxel, cisplatin or oxaliplatin, and fluorouracil[a]

[a] Leucovorin is indicated with certain fluorouracil-based regimens. Depending on availability, these regimens may be used with or without leucovorin.

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

PRINCIPLES OF SYSTEMIC THERAPY

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated) a

SQUAMOUS CELL CARCINOMA
Second-Line or Subsequent Therapy • **Dependent on prior therapy and PS**
Preferred Regimens • Nivolumab (category 1) • Pembrolizumab for PD-L1 CPS ≥10 (category 1) • Docetaxel (category 1) • Paclitaxel (category 1) • Irinotecan (category 1) • Tislelizumab-jsgr (category 1) • Fluorouracil and irinotecan
Other Recommended Regimens • Irinotecan and cisplatin • Docetaxel and irinotecan (category 2B)
Useful in Certain Circumstances • Entrectinib, larotrectinib, or repotrectinib for NTRK gene fusion-positive tumors • Pembrolizumab for MSI-H/dMMR tumors • Nivolumab and ipilimumab for MSI-H/dMMR tumors • Pembrolizumab for TMB-high (TMB-H) (≥10 mutations/megabase) tumors • Dabrafenib and trametinib for BRAF V600E-mutated tumors • Selpercatinib for RET gene fusion-positive tumors

PRINCIPLES OF SYSTEMIC THERAPY

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA
Second-Line or Subsequent Therapy • **Dependent on prior therapy and PS**
Preferred Regimens • Ramucirumab and paclitaxel (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma) • Fam-trastuzumab deruxtecan-nxki for HER2 overexpression positive for adenocarcinoma • Docetaxel (category 1) • Paclitaxel (category 1) • Irinotecan (category 1) • Fluorouracil[a,g] and irinotecan • Trifluridine and tipiracil for third-line or subsequent therapy for EGJ adenocarcinoma (category 1)
Other Recommended Regimens • Ramucirumab for adenocarcinoma (category 1 for EGJ adenocarcinoma; category 2A for esophageal adenocarcinoma) • Irinotecan and cisplatin • Fluorouracil and irinotecan + ramucirumab • Irinotecan and ramucirumab • Docetaxel and irinotecan (category 2B)
Useful in Certain Circumstances • Entrectinib, larotrectinib, or repotrectinib for NTRK gene fusion-positive tumors • Pembrolizumab for MSI-H/dMMR tumors • Nivolumab and ipilimumab for MSI-H/dMMR tumors • Pembrolizumab for TMB-high (TMB-H) (≥10 mutations/megabase) tumors • Dabrafenib and trametinib for BRAF V600E-mutated tumors • Selpercatinib for RET gene fusion-positive tumors

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

NEOADJUVANT CHEMORADIATION

PREFERRED REGIMENS

Paclitaxel + Carboplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	50 mg/m^2	IV	D1	Weekly for 5 weeks	
Carboplatin	AUC 2	IV	D1		
Ref.	*van Hagen P, Hulshof MC, van Lanschot JJ, et al. Preoperative chemoradiotherapy for esophageal or junctional cancer. N Engl J Med 2012;366:2074-2084.*				

Fluorouracil and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	60 - 80 mg/m^2	IV	D1	Cycled every 28 days for 2 cycles	
Fluorouracil (5-FU)	600 - 800 mg/m^2/day	IV	continuous infusion over 24 hours daily,D1-4		
or					
Cisplatin/or carboplatin (AUC 3)	30 - 40 mg/m^2	IV	D1	Cycled every 14 days for 3 cycles	
Fluorouracil (5-FU)	1200 -1600 mg/m^2	IV	drip 46-48 hours, D1-2		
Ref.	*Tepper J, Krasna MJ, Niedzwiecki D, et al. Phase III trial of trimodality therapy with cisplatin, fluorouracil, radiotherapy, and surgery compared with surgery alone for esophageal cancer: CALGB 9781. J Clin Oncol 2008;26:1086-1092.*				

NEOADJUVANT CHEMORADIATION

Cisplatin +UFUR

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	25 - 30 mg/m^2	IV	D1	Weekly for 5 weeks	不願 24-48 小時注射或 不適合放置人工血管
UFUR	200-250 mg/m^2/day	PO	Bid,D1-5		
Ref.	*Iwase, H., Shimada, M., Nakamura, M., Nakarai, K., Iyo, T., Kaida, S., Indo, T., Kato, E., Horiuchi, Y., & Kusugami, K. (2003). Concurrent chemoradiotherapy for locally advanced and metastatic esophageal cancer: Long-term results of a phase II study of UFT/CDDP with radiotherapy. International Journal of Clinical Oncology, 8(5), 305–311.*				

NEOADJUVANT OR PERIOPERATIVE IMMUNOTHERAPY

USEFUL IN CERTAIN CIRCUMSTANCES

(MSI-H/dMMR tumors)

Nivolumab and ipilimumab followed by nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	240mg	IV	D1	every 2 weeks	(preoperative for at least 12 total weeks), followed by surgery and adjuvant nivolumab 480 mg IV every 4 weeks for 9 cycles
Ipilimumab	1 mg/kg	IV	D1	every 6 weeks	
Ref.	*Andre T, Tougeron D, Piessen G, et al. Neoadjuvant Nivolumab Plus Ipilimumab and Adjuvant Nivolumab in Localized Deficient Mismatch Repair/Microsatellite Instability-High Gastric or Esophagogastric Junction Adenocarcinoma: The GERCOR NEONIPIGA Phase II Study. J Clin Oncol 2023;41:255-265.*				

Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Pembrolizumab	200 mg	IV	D1	every 3 weeks for at least 12 total weeks	followed by surgery and adjuvant pembrolizumab 200 mg IV every 3 weeks for 16 cycles
Ref.	*Ludford K, Ho WJ, Thomas JV, et al. Neoadjuvant Pembrolizumab in Localized Microsatellite Instability High/Deficient Mismatch Repair Solid Tumors. J Clin Oncol 2023;41:2181-2190.*				

NEOADJUVANT OR PERIOPERATIVE IMMUNOTHERAPY

USEFUL IN CERTAIN CIRCUMSTANCES

(MSI-H/dMMR tumors)

Tremelimumab and durvalumabb (for neoadjuvant therapy only)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tremelimumab	300 mg	IV	D1	For 12 weeks preoperatively for 1 cycle only	
Durvalumab	1500mg	IV	D1, 29, and 57		
Ref.	*Kelly RJ, Lee J, Bang YJ, et al. Safety and Efficacy of Durvalumab and Tremelimumab Alone or in Combination in Patients with Advanced Gastric and Gastroesophageal Junction Adenocarcinoma. Clin Cancer Res 2020;26:846-854.* *Pietrantonio F, Raimondi A, Lonardi S, et al. INFINITY: A multicentre, single-arm, multi-cohort, phase II trial of tremelimumab and durvalumab as neoadjuvant treatment of patients with microsatellite instability-high (MSI) resectable gastric or gastroesophageal junction adenocarcinoma (GAC/ GEJAC). Journal of Clinical Oncology 2023;41:358- 358.*				

DEFINITIVE CHEMORADIATION

Preferred Regimens

Paclitaxel + Carboplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	50 mg/m^2	IV	D1	Weekly for 5 weeks	
Carboplatin	AUC 2	IV	D1		
Ref.	*van Hagen P, Hulshof MC, van Lanschot JJ, et al. Preoperative chemoradiotherapy for esophageal or junctional cancer. N Engl J Med 2012;366:2074-2084.*				

PF

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	60 - 80 mg/m^2	IV	D1	Cycled every 28 days for total 4 cycles	2 cycles with radiation followed by 2 cycles without radiation
Fluorouracil (5-FU)	600 - 800 mg/m^2 /day	IV	continuous infusion over 24 hours daily,D1-4		
or					
Cisplatin/or carboplatin (AUC3)	30 - 40 mg/m^2	IV	D1	Cycled every 14 days for 6-8 cycles	3-4 cycles with radiation followed by 3-4cycles without radiation
Fluorouracil (5-FU) ± Leucovorin(200mg)	1200 -1600 mg/m^2	IV	drip 46-48 hours, D1-2		
Ref.	*Minsky BD, Pajak TF, Ginsberg RJ, et al. INT 0123 (Radiation Therapy Oncology Group 94-05) phase III trial of combinedmodality therapy for esophageal cancer: high-dose versus standard-dose radiation therapy. J Clin Oncol 2002;20:1167-1174.*				

DEFINITIVE CHEMORADIATION

Preferred Regimens

Cisplatin +UFUR

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	25 - 30 mg/m^2	IV	D1	Weekly for 5 weeks	不願 24-48 小時注射或不適合放置人工血管
UFUR	200-250 mg/m^2/day	PO	Bid,D1-5		
Ref.	*Iwase, H., Shimada, M., Nakamura, M., Nakarai, K., Iyo, T., Kaida, S., Indo, T., Kato, E., Horiuchi, Y., & Kusugami, K. (2003). Concurrent chemoradiotherapy for locally advanced and metastatic esophageal cancer: Long-term results of a phase II study of UFT/CDDP with radiotherapy. International Journal of Clinical Oncology, 8(5), 305–311.*				

OTHER RECOMMENDED REGIMENS

Paclitaxel +cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	60 mg/m^2	IV	D1,8,15,22	1cycle	
cisplatin	75 mg/m^2	IV	D1		
Ref.	*Urba SG, Orringer MB, Ianettonni M, et al. Concurrent cisplatin, paclitaxel, and radiotherapy as preoperative treatment for patients with locoregional esophageal carcinoma. Cancer 2003;98:2177-2183.*				

Postoperative adjuvant CCRT (for direct operation without CCRT)

PREFERRED REGIMENS

Paclitaxel + Carboplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	50 mg/m^2	IV	D1	Weekly for 5 weeks	
Carboplatin	AUC 2	IV	D1		
Ref.	*Ni, W., Yu, S., Xiao, Z., Zhou, Z., Chen, D., Feng, Q., Liang, J., Lv, J., Gao, S., Mao, Y., Xue, Q., Sun, K., Liu, X., Fang, D., Li, J., Wang, D., Zhao, J., & Gao, Y. (2021). Postoperative adjuvant therapy versus surgery alone for stage IIB–III esophageal squamous cell carcinoma: A phase III randomized controlled trial. The Oncologist, 26(12), e2151–e2160.* *Chen, J., Pan, J., Liu, J., Li, J., Zhu, K., Zheng, X., Chen, M., Chen, M., & Liao, Z. (2013). Postoperative radiation therapy with or without concurrent chemotherapy for node-positive thoracic esophageal squamous cell carcinoma. International Journal of Radiation Oncology, Biology, Physics, 86(4), 671–677. https://doi.org/10.1016/j.ijrobp.2013.03.004*				

Fluorouracil and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	60 - 80 mg/m^2	IV	D1	Cycled every 28 days for 2 cycles	
Fluorouracil (5-FU)	600 - 800 mg/m^2/day	IV	continuous infusion over 24 hours daily,D1-4		
or					
Cisplatin/or carboplatin (AUC 3)	30 - 40 mg/m^2	IV	D1	Cycled every 14 days for 3 cycles	
Fluorouracil (5-FU)	1200 -1600 mg/m^2	IV	drip 46-48 hours, D1-2		
or					

Cisplatin	30mg/m^2	IV	D1	Weekly for 5 weeks	
Fluorouracil (5-FU)	800 mg/m^2	IV	continuous infusion over 24 hours daily,D1		
Ref.	*Adelstein, D. J., Rice, T. W., Rybicki, L. A., Saxton, J. P., Videtic, G. M. M., Murthy, S. C., Mason, D. P., Rodriguez, C. P., & Ives, D. I. (2009). Mature results from a phase II trial of postoperative concurrent chemoradiotherapy for poor prognosis cancer of the esophagus and gastroesophageal junction. Journal of Thoracic Oncology, 4(10), 1264–1269. https://doi.org/10.1097/JTO.0b013e3181b9c8f2* *Zhang, W.-W., Zhu, Y.-J., Yang, H., Wang, Q.-X., Wang, X.-H., Xiao, W.-W., Li, Q.-Q., Liu, M.-Z., & Hu, Y.-H. (2015). Concurrent radiotherapy and weekly chemotherapy of 5-fluorouracil and platinum agents for postoperative locoregional recurrence of oesophageal squamous cell carcinoma. Scientific Reports, 5, 8071.*				

Cisplatin +UFUR

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	25 - 30 mg/m^2	IV	D1	Weekly for 5 weeks	不願 24-48 小時注射或 不適合放置人工血管
UFUR	200-250 mg/m^2/day	PO	Bid,D1-5		
Ref.	*Iwase, H., Shimada, M., Nakamura, M., Nakarai, K., Iyo, T., Kaida, S., Indo, T., Kato, E., Horiuchi, Y., & Kusugami, K. (2003). Concurrent chemoradiotherapy for locally advanced and metastatic esophageal cancer: Long-term results of a phase II study of UFT/CDDP with radiotherapy. International Journal of Clinical Oncology, 8(5), 305–311.*				

POSTOPERATIVE ADJUVANT THERAPY

PREFERRED REGIMEN

Nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	240 mg or 自費 3mg/kg	IV	D1	every 14 days for 16 weeks	followed by Nivolumab 480 mg every 28 days，Maximum treatment duration of 1 year
Ref.	*Kelly R, Ajani J, Kuzdzal J, et al. Adjuvant nivolumab in resected esophageal or gastroesophageal junction cancer following neoadjuvant chemoradiation therapy: first results of the CheckMate 577 study. [abstract]. Presented at the Oral Presentation presented at the ESMO 2020 Annual Meeting; September 19-21, 2020; Virtual Meeting.*				

Other Recommended Regimens

for patient can't afford adjuvant ICI，may consider complete chemotherapy course(2-4 cycle)

PERIOPERATIVE SYSTEMIC THERAPY (Esophagogastric Junction adenocarcinoma)

Preferred Regimens

FLOT

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Fluorouracil (5-FU)	2600 mg/m^2	IV	drip 46-48 hours, D1-2	Cycled every 14days for total 8 cycles	4 cycles preoperative and 4 cycles postoperative
Leucovorin	200 mg/m^2	IV	drip 46-48 hours, D1-2		
Oxaliplatin	85 mg/m^2	IV	D1		
Docetaxel	30 mg/m^2	IV	D1		
Ref.	*Al-Batran S-E, Homann N, Pauligk C, et al. Perioperative chemotherapy with fluorouracil plus leucovorin, oxaliplatin, and docetaxel versus fluorouracil or capecitabine plus cisplatin and epirubicin for locally advanced, resectable gastric or gastrooesophageal junction adenocarcinoma (FLOG4): a randomised, phase 2/3 trial. Lancet 2019;393:1948-1957.*				

FLOT +durvalumab

Drug Combination(	Dosage	Route of administration	Times	Frequency/Duration	Notes
durvalumab	1500	IV	D1	Cycled every 28days for total 4cycles	2cycles preoperative and 2cycles postoperative followed by Durvalumab 1500 mg IV on Day 1 every 4 weeks for 10 additional cycles
Fluorouracil (5-FU)	2600 mg/m^2	IV	drip 46-48 hours, D1-2,15-16		
Leucovorin	200 mg/m^2	IV	drip 46-48 hours, D1-2,15-16		
Oxaliplatin	85 mg/m^2	IV	D1		
Docetaxel	30 mg/m^2	IV	D1		
Ref.	*Janjigian YY, Al-Batran SE, Wainberg ZA, etal. Perioperative durvalumab in gastric and gastroesophageal junction cancer. N Engl J Med 2025;393:217-230.*				

PERIOPERATIVE SYSTEMIC THERAPY (Esophagogastric Junction adenocarcinoma)

OTHER RECOMMENDED REGIMENS

Fluorouracil+Cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	50 mg/m^2	IV	D1	Cycled every 14days for total 8 cycles	4 cycles preoperative and 4 cycles postoperative
Fluorouracil (5-FU)	2000 mg/m^2	IV	drip 46-48 hours, D1-2		
Ref.	*National Comprehensive Cancer Network. (2025). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Esophageal and Esophagogastric Junction Cancers (Version 4.2025).*				

Fluoropyrimidine and oxaliplatin

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Fluorouracil (5-FU)	1200mg/m^2/day	IV	continuous infusion over 24 hours daily, D1 and 2	Cycled every 14days for total 8 cycles	4 cycles preoperative and 4 cycles postoperative
Fluorouracil (5-FU)	400mg/m^2	IV push	D1		
Leucovorin	400mg/m^2	IV	D1		
Oxaliplatin	85 mg/m^2	IV	D1		
Ref.	*Enzinger PC, Burtness BA, Niedzwiecki D, et al. CALGB 80403 (Alliance)/E1206: a randomized phase II study of three chemotherapy regimens plus cetuximab in metastatic esophageal and gastroesophageal junction cancers. J Clin Oncol 2016;34:2736-2742.*				

PERIOPERATIVE SYSTEMIC THERAPY (Esophagogastric Junction adenocarcinoma)

OTHER RECOMMENDED REGIMENS

Fluoropyrimidine and oxaliplatin

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Fluorouracil (5-FU)	2600 mg/m^2	IV	drip 46-48 hours, D1-2	Cycled every 14days for total 8 cycles	4 cycles preoperative and 4 cycles postoperative
Leucovorin	200 mg/m^2	IV	drip 46-48 hours, D1-2		
Oxaliplatin	85 mg/m^2	IV	D1		
Ref.	*Al-Batran S-E, Hartmann JT, Probst S, et al. Phase III trial in metastatic gastroesophageal adenocarcinoma with fluorouracil, leucovorin plus either oxaliplatin or cisplatin: a study of the Arbeitsgemeinschaft Internistische Onkologie. J Clin Oncol 2008;26:1435-1442.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	80 mg/m^2	IV	D1	every 28 days	
Fluorouracil (5-FU)	750 – 1000 mg/m^2 /day	IV	continuous infusion over 24 hours daily, D1-4		
Ref.	*Lorenzen S, Schuster T, Porschen R, et al. Cetuximab plus cisplatin-5-fluorouracil versus cisplatin-5-fluorouracil alone in first-line metastatic squamous cell carcinoma of the esophagus: a randomized phase II study of the Arbeitsgemeinschaft Internistische Onkologie. Ann Oncol 2009;20:1667-1673.*				

PFL

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC2)	40 - 50 mg/m^2	IV	D1	every 14 days	
Leucovorin	200 mg/m^2	IV	drip 46-48 hours, D1-2		
Fluorouracil (5-FU)	1600-2000 mg/m^2	IV	drip 46-48 hours, D1-2		
Ref.	*Hung TC et al. Weekly 24-hour infusional 5-fluorouracil as initial treatment for advanced gastric cancer with acute disseminated intravascular coagulation. Anticancer Res 2008;28:1293*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) + nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin/or carboplatin (AUC 6)	80 mg/m^2	IV	D1	every 28days	
Fluorouracil (5-FU)	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4		
nivolumab	240mg	IV	D1	every 14 days	per study maximum of 2 years
Ref.	*Doki Y, Ajani JA, Kato K, et al. Nivolumab combination therapy in advanced esophageal squamous-cell carcinoma. N Engl J Med 2022;386:449-462.*				

Cisplatin +Capecitabine + nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m2	IV	D1	every 21days	
Capecitabine	850-1000mg	PO	Bid,D1-14		
nivolumab	360mg	IV	D1		per study maximum of 2 years
Ref.	Kang YK, Kang WK, Shin DB, et al. Capecitabine/ cisplatin versus 5-fluorouracil/cisplatin as first-line therapy in patients with advanced gastric cancer: a randomised phase III noninferiority trial. Ann Oncol 2009;20:666-673.				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for up to 6cycles	
Fluorouracil (5-FU)	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

Cisplatin +Capecitabine +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for 6cycles(total of 18weeks)	
Capecitabine	850-1000mg	PO	Bid,D1-14		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Rha SY, Oh DY, Yanez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double- blind, phase 3 trial. Lancet Oncol 2023;24:1181- 1195.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

PREFERRED REGIMENS

Nivolumab+ipilimumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	3 mg/kg	IV	D1	every 2 weeks	(per study, maximum of 2 years)
Ipilimumab	1 mg/kg	IV	D1	every 6 weeks	
Ref.	*Doki Y, Ajani JA, Kato K, et al. Nivolumab Combination Therapy in Advanced Esophageal Squamous-Cell Carcinoma.N Engl J Med 2022;386:449-462.*				

Tislelizumab-jsgr with (fluoropyrimidine or taxol) and (oxaliplatin or cisplatin)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
+					
Oxaliplatin	85 mg/m2	IV	on Day 1	Cycled every 14 days For 12cycles	
Leucovorin	200 mg/m2	IV	continuous infusion over 24 hours on D1		
Fluorouracil	1200 mg/m2/day	IV	continuous infusion over 24 hours on D1 、D2		
or					
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)		
or					
Cisplatin	60-80 mg/m2	IV	on D 1	Cycled every 21 days for 6 cycles	
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours on Day 1-4		

or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14		
or					
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)	Cycled every 21 days	
Paclitaxel	175mg/m2	IV	D1		
or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Paclitaxel	175mg/m2	IV	D1		
Ref.	1. *Qiu MZ, Oh DY, Kato K, et al. RATIONALE-305,Investigators. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first line treatment for advanced gastric or gastro- oesophageal junction adenocarcinoma:RATIONALE-305 randomised, double blind, phase 3 trial. BMJ 2024;385:e078876.* 2. *Xu J, Kato K, Raymond E, et al. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first-line treatment for advanced or metastatic oesophageal squamous cell carcinoma (RATIONALE-306): a global, randomised, placebo-controlled, phase 3 study. Lancet Oncol 2023;24:483-495.*				

OTHER RECOMMENDED REGIMENS

Fluorouracil and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	180 mg/m2	IV	D1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	on Day 1		
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Guimbaud R, Louvet C, Ries P, et al. Prospective, randomized, multicenter, phase III study of fluorouracil, leucovorin, and irinotecan versus epirubicin, cisplatin, and capecitabine in advanced gastric adenocarcinoma: a French Intergroup (Federation Francophone de Cancerologie Digestive, Federation Nationale des Centres de Lutte Contre le Cancer, and Groupe Cooperateur Multidisciplinaire en Oncologie) study. J Clin Oncol 2014;32:3520-3526.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Paclitaxel with or without carboplatin or cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	175 mg/m2	IV	on Day 1	Cycled every 21 days	
Carboplatin	AUC 5	IV	on Day 1		
or					
Paclitaxel	60-80 mg/m2	IV	on D1,8,15	Cycled every 28 days	
Cisplatin	70-80 mg/m2	IV	on Day 1		
or					
Paclitaxel	135–200mg/m2	IV	on Day 1	Cycled every 21 days	
Cisplatin	75 mg/m2	IV	on Day 1		
or					
Paclitaxel	90 mg/m2	IV	on Day 1	Cycled every 14 days	
Cisplatin	50 mg/m2	IV	on Day 1		
or					
Paclitaxel	135-250mg/m2	IV	on Day 1	Cycled every 21 days	
or					
Paclitaxel	60-80 mg/m2	IV	on D1,8,15	Cycled every 28 days	
Ref.	*1. Gadgeel SM, Shields AF, Heilbrun LK, et al. Phase II study of paclitaxel and carboplatin in patients with advanced gastric cancer. Am J Clin Oncol 2003;26:37-41.* *2. Ilson DH, Forastiere A, Arquette M, et al. A phase II trial of paclitaxel and cisplatin in patients with advanced carcinoma of the esophagus. Cancer J 2000;6:316-323.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Ref.	*3. Petrasch S, Welt A, Reinacher A, et al. Chemotherapy with cisplatin and paclitaxel in patients with locally advanced, recurrent or metastatic oesophageal cancer. Br J Cancer 1998;78:511-514.* *4. Ajani JA, Ilson DH, Daugherty K, et al. Activity of taxol in patients with squamous cell carcinoma and adenocarcinoma of the esophagus. J Natl Cancer Inst 1994;86:1086-1091.* *5. Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial. J Clin Oncol 2013;31:4438-4444.*

Docetaxel with or without cisplatin

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxel	70-85 mg/m2	IV	D1	every 21 days	
Cisplatin	70–75 mg/m2	IV	D1		
or					
Docetaxel	30 - 35 mg/m^2	IV	D1、8	every 21 days	
or					
Docetaxel	22 - 25 mg/m^2	IV	D1、8、15	every 28 days	
or					
Docetaxel	60-75mg/m2	IV	D1	every 21 days	
Ref.	*1.Ajani JA, Fodor MB, Tjulandin SA, et al. Phase II multi-institutional randomized trial of docetaxel plus cisplatin with or without fluorouracil in patients with untreated, advanced gastric, or gastroesophageal adenocarcinoma. J Clin Oncol 2005;23:5660-5667.* *2.Kim JY, Do YR, Park KU, et al. A multi-center phase II study of docetaxel plus cisplatin as first-line therapy in patients with metastatic squamous cell esophageal cancer. Cancer Chemother Pharmacol 2010;66:31-36.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	D1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours daily,D1-4	Cycled every 28 days	
Ref.	*1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328.* *2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59.* *3. Hong YS, Song SY, Lee SI, et al. A phase II trial of capecitabine in previously untreated patients with advanced and/or metastatic gastric cancer. Ann Oncol 2004;15:1344-1347.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Docetaxel, cisplatin, and fluorouracil

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxel	40 mg/m2	IV	on Day 1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	on Day 1		
Fluorouracil	400 mg/m2	IV	on Day 1		
Fluorouracil	1000 mg/m2/day	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Cisplatin	40 mg/m2	IV	on Day 3		
Ref.	*1. Shah MA, Janjigian YY, Stoller R, et al. Randomized multicenter phase II study of modified docetaxel, cisplatin, and fluorouracil (DCF) versus DCF plus growth factor support in patients with metastatic gastric adenocarcinoma: a study of the US Gastric Cancer Consortium. J Clin Oncol 2015;33:3874-3879.* *2. Blum Murphy MA, Qiao W, Mewada N, et al. A phase I/II study of docetaxel, oxaliplatin, and fluorouracil (D-FOX) chemotherapy in patients with untreated locally unresectable or metastatic adenocarcinoma of the stomach and gastroesophageal junction. Am J Clin Oncol 2018;41:321-325.*				

S-1 (TS-1)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tegafur/potassium oxonate/gimeracil	40mg	PO	Bid	4 weeks on, 2 weeks off (or 2 weeks on, 1 weeks off), for 1 year	BSA < 1.25
OR					
Tegafur/potassium oxonate/gimeracil	50mg	PO	Bid		BSA 1.25 - 1.5

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Tegafur/potassium oxonate/gimeracil	60mg	PO	Bid		BSA ≧1.5
Ref.	*Sakuramoto S, et al. Adjuvant chemotherapy for gastric cancer with S-1, an oral fluoropyrimidine. N Engl J Med. 2007;357:1810. S-1 Monotherapy as Second- or Third-Line Chemotherapy for Unresectable and Recurrent Esophageal Squamous Cell Carcinoma Akutsu Y. · Kono T. · Uesato M. · Hoshino I. · Narushima K. · Hanaoka T. · Tochigi T. · Semba Y. · Qin W. · Matsubara H. Department of Frontier Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (FIRST-LINE THERAPY)

HER2 overexpression-positive

Trastuzumab with chemotherapy(Fluoropyrimidine and oxaliplatin)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	8 mg/kg IV loading dose on Day 1 of cycle 1, then 6 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 21 days	HER2 overexpression-positive
or					
Trastuzumab	6 mg/kg IV loading dose on Day 1 of cycle 1, then 4 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 14 days	
Ref.	*Bang YJ, Van Cutsem E, Feyereislova A, et al. Trastuzumab in combination with chemotherapy versus chemotherapy alone for treatment of HER2- positive advanced gastric or gastro-oesophageal junction cancer (ToGA): a phase 3, open-label, 41andomized controlled trial. Lancet 2010;376:687- 697.*				
+					
Oxaliplatin	85 mg/m2	IV	on Day 1	Cycled every 14 days	
Leucovorin	200 mg/m2	IV	continuous infusion over 24 hours on Day 1		
Fluorouracil	2600 mg/m2	IV	continuous infusion over 24 hours on Day 1		
or					
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1		

or					
Capecitabine	625 mg/m2 BID	PO	on D 1–14	Cycled every 21 days	
Oxaliplatin	85 mg/m2	IV	on Day 1		
Ref.	*1 Al-Batran S-E, Hartmann JT, Probst S, et al. Phase III trial in metastatic gastroesophageal adenocarcinoma with fluorouracil, leucovorin plus either oxaliplatin or cisplatin: a study of the Arbeitsgemeinschaft Internistische Onkologie. J Clin Oncol 2008;26:1435-1442.* *2 Enzinger PC, Burtness BA, Niedzwiecki D, et al. CALGB 80403 (Alliance)/E1206: a randomized phase II study of three chemotherapy regimens plus cetuximab in metastatic esophageal and gastroesophageal junction cancers. J Clin Oncol 2016;34:2736-2742.* *3 Kim GM, Jeung HC, Rha SY, et al. A randomized phase II trial of S-1-oxaliplatin versus capecitabine- oxaliplatin in advanced gastric cancer. Eur J Cancer 2012;48:518-526.* *4 Macdonald JS, Smalley SR, Benedetti J, et al. Chemoradiotherapy after surgery compared with surgery alone for adenocarcinoma of the stomach or gastroesophageal junction. N Engl J Med 2001;345:725-730.*				

Trastuzumab with chemotherapy(Fluoropyrimidine and cisplatin)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	8 mg/kg IV loading dose on Day 1 of cycle 1, then 6 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 21 days	HER2 overexpression-positive
or					
Trastuzumab	6 mg/kg IV loading dose on Day 1 of cycle 1, then 4 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 14 days	
Ref.	*Bang YJ, Van Cutsem E, Feyereislova A, et al. Trastuzumab in combination with chemotherapy versus chemotherapy alone for treatment of HER2- positive advanced gastric or gastro-oesophageal junction cancer (ToGA): a phase 3, open-label, 42andomized controlled trial. Lancet 2010;376:687- 697.*				

+				
Cisplatin	75–100 mg/m2	IV	on Day 1	Cycled every 28 days
Fluorouracil	750–1000 mg/m2/day	IV	continuous infusion over 24 hours daily on Days 1–4	
or				
Cisplatin	50 mg/m2	IV	on Day 1	Cycled every 14 days
Leucovorin	200 mg/m2	IV	IV continuous infusion over 24 hours daily on Day 1	
Fluorouracil	2600 mg/m2	IV	IV continuous infusion over 24 hours daily on Day 1	
or				
Cisplatin	80 mg/m2	IV	daily on Day 1	Cycled every 21 days
Capecitabine	850–1000 mg/m2	PO	BID,on D1–14	

Ref.

1.Lorenzen S, Schuster T, Porschen R, et al. Cetuximab plus cisplatin-5-fluorouracil versus cisplatin-5-fluorouracil alone in first-line metastatic squamous cell carcinoma of the esophagus: a randomized phase II study of the Arbeitsgemeinschaft Internistische Onkologie. Ann Oncol 2009;20:1667-1673.

2.Al-Batran S-E, Hartmann JT, Probst S, et al. Phase III trial in metastatic gastroesophageal adenocarcinoma with fluorouracil, leucovorin plus either oxaliplatin or cisplatin: a study of the Arbeitsgemeinschaft Internistische Onkologie. J Clin Oncol 2008;26:1435-1442.

Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328.

3.Kang YK, Kang WK, Shin DB, et al. Capecitabine/cisplatin versus 5-fluorouracil/cisplatin as first-line therapy in patients with advanced gastric cancer: a 43andomized phase III noninferiority trial. Ann Oncol 2009;20:666-673.

Trastuzumab and pembrolizumab with fluoropyrimidine and oxaliplatin or fluoropyrimidine and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	8 mg/kg loading dose on Day 1 of cycle 1, then 6 mg/kg	IV	drip 90 mins, then 60 mins, day 1	every 21 days	HER2 overexpression-positive
Pembrolizumab	200 mg	IV	on Day 1	Cycled every 3 weeks	
Ref.	*1. Janjigian YY, Kawazoe A, Bai Y, et al. Pembrolizumab plus trastuzumab and chemotherapy for HER2-positive gastric or gastro-oesophageal junction adenocarcinoma: interim analyses from the phase 3 KEYNOTE-811 randomised placebo-controlled trial. Lancet 2023;402:2197-2208.* *2. Bang YJ, Van Cutsem E, Feyereislova A, et al. Trastuzumab in combination with chemotherapy versus chemotherapy alone for treatment of HER2- positive advanced gastric or gastro-oesophageal junction cancer (ToGA): a phase 3, open-label, randomised controlled trial. Lancet 2010;376:687- 697.* *3. Janjigian YY, Kawazoe A, Yanez P, et al. The KEYNOTE-811 trial of dual PD-1 and HER2 blockade in HER2-positive gastric cancer. Nature 2021;600:727-730.*				
+					
Capecitabine	850–1000 mg/m2	PO	BID,D1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Fluorouracil	750-1000 mg/m2/day	IV	continuous infusion over 24 hours daily on Days 1–4		
or					
Cisplatin	80 mg/m2	IV	D 1	Cycled every 21 days	
Capecitabine	850–1000 mg/m2	PO	Bid,D1–14		

Ref.	*1.Kim GM, Jeung HC, Rha SY, et al. A randomizedphase II trial of S-1-oxaliplatin versus capecitabine- oxaliplatin in advanced gastric cancer. Eur J Cancer 2012;48:518-526.* *2.Janjigian YY, Kawazoe A, Yanez P, et al. TheKEYNOTE-811 trial of dual PD-1 and HER2 blockade in HER2-positive gastric cancer. Nature 2021;600:727-730.* *3.Kang YK, Kang WK, Shin DB, et al. Capecitabine/ cisplatin versus 5-fluorouracil/cisplatin as first-line therapy in patients with advanced gastric cancer: a randomised phase III noninferiority trial. Ann Oncol 2009;20:666-673.*

HER2 overexpression-negative

Fluoropyrimidine (fluorouracila or capecitabine), oxaliplatin, and nivolumabb

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Oxaliplatin	130 mg/m2	IV	D 1	every 21days	
Capecitabine	850-1000mg	PO	Bid,D1-14		
nivolumab	360mg	IV	D1		per study maximum of 2 years
Ref.	*1Janjigian YY, Shitara K, Moehler M, et al. First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastro-oesophageal junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. Lancet 2021;398:27-40.* *2 Doki Y, Ajani JA, Kato K, et al. Nivolumab combination therapy in advanced esophageal squamous-cell carcinoma. N Engl J Med 2022;386:449-462.*				

Oxaliplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Oxaliplatin	85mg/m2	IV	D1	Cycled every 14 days for up to 9 cycles (total 18 weeks)	
Leucovorin	400mg	IV	continuous infusion over 24 hours daily on Days 1		
Fluorouraci	400mg	IV push	D1		
Fluorouraci	1200mg/m^2/day	IV	continuous infusion over 24 hours daily on Days 1 and 2		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Rha SY, Oh DY, Yanez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double- blind, phase 3 trial. Lancet Oncol 2023;24:1181- 1195.*				

Oxaliplatin + Capecitabine +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Oxaliplatin	130mg/m2	IV	D1	every 21days for 6cycles(total of 18weeks)	
Capecitabine	850-1000mg	PO	Bid,D1-14		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Rha SY, Oh DY, Yanez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double- blind, phase 3 trial. Lancet Oncol 2023;24:1181- 1195.*				

Cisplatin + Fluorouracil (5-FU) +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for 6cycles	
Fluorouracil (5-FU)	750-1000 mg/m^2 /day	IV	continuous infusion over 24 hours daily on Days 1–4		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Sun JM, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet 2021;398:759-771.*				

Cisplatin +Capecitabine +Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Cisplatin	80 mg/m^2	IV	D1	every 21days for 6cycles(total of 18weeks)	
Capecitabine	850-1000mg	PO	Bid,D1-14		
Pembrolizumab	200mg	IV	D1	every 21 days	up to 2 years
Ref.	*Rha SY, Oh DY, Yanez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double- blind, phase 3 trial. Lancet Oncol 2023;24:1181- 1195.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (FIRST-LINE THERAPY)

Tislelizumab-jsgr with fluoropyrimidine and oxaliplatin or cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
+					
Oxaliplatin	85 mg/m2	IV	on Day 1	Cycled every 14 days For 12cycles	
Leucovorin	200 mg/m2	IV	continuous infusion over 24 hours on D1		
Fluorouracil	1200 mg/m2/day	IV	continuous infusion over 24 hours on D1 、D2		
or					
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	drip 120 mins, on Day 1 (per study maximum of 6 doses)		
or					
Cisplatin	60-80 mg/m2	IV	on D 1	Cycled every 21 days for 6 cycles	
Fluorouracil	750 – 1000 mg/m2/day	IV	continuous infusion over 24 hours on Day 1-4		
or					
Cisplatin	60-80 mg/m2	IV	on D 1(per study maximum of 6 doses)	Cycled every 21 days	
Capecitabine	850-1000 mg/m2	PO	BID. On D 1–14		
Ref.	1. *Qiu MZ, Oh DY, Kato K, et al. RATIONALE-305,Investigators. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first line treatment for advanced gastric or gastro- oesophageal junction adenocarcinoma:RATIONALE-305 randomised, double blind, phase 3 trial. BMJ 2024;385:e078876.* 2. *Xu J, Kato K, Raymond E, et al. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first-line treatment for advanced or metastatic oesophageal squamous cell carcinoma (RATIONALE-306): a global, randomised, placebo-controlled, phase 3 study. Lancet Oncol 2023;24:483-495.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (FIRST-LINE THERAPY)

HER2 Overexpression Negative, CLDN18.2 Positive

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Zolbetuximab-clzb	800 mg/m2 first-dose only, subsequent doses 400 mg/m2	IV	D1	Cycled every 14 days	
Oxaliplatin	85 mg/m2	IV	on D 1 (per study maximum of 12 doses)		
Leucovorin	400mg	IV	D1		
Fluorouraci	400mg	IV push	continuous infusion over 24 hours daily on Days 1		
Fluorouraci	1200mg/m^2/day	IV	continuous infusion over 24 hours daily on Days 1 and 2		
or					
Zolbetuximab-clzb	800 mg/m2 IV first-dose only, subsequent doses 600 mg/m2	IV	on Day 1	Cycled every 21 days	
Oxaliplatin	130 mg/m2	IV	on Day 1 (per study maximum of 8 doses)		
Capecitabine	850–1000 mg/m2 BID	PO	on Days 1–14		
Ref.	*1. Shitara K, Lordick F, Bang YJ, et al. Zolbetuximab plus mFOLFOX6 in patients with CLDN18.2- positive, HER2-negative, untreated,locally advanced unresectable or metastatic gastric or gastro-oesophageal junction adenocarcinoma (SPOTLIGHT): a multicentre, randomised, double- blind, phase 3 trial. Lancet 2023;401:1655-1668.* *2. Shah MA, Shitara K, Ajani JA, et al. Zolbetuximab plus CAPOX in CLDN18.2-positive gastric or gastroesophageal junction adenocarcinoma: the randomized, phase 3 GLOW trial. Nat Med 2023;29:2133-2141.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (FIRST-LINE THERAPY)

OTHER RECOMMENDED REGIMENS

Fluorouracil and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	180 mg/m2	IV	D1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	on Day 1		
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Guimbaud R, Louvet C, Ries P, et al. Prospective, randomized, multicenter, phase III study of fluorouracil, leucovorin, and irinotecan versus epirubicin, cisplatin, and capecitabine in advanced gastric adenocarcinoma: a French Intergroup (Federation Francophone de Cancerologie Digestive, Federation Nationale des Centres de Lutte Contre le Cancer, and Groupe Cooperateur Multidisciplinaire en Oncologie) study. J Clin Oncol 2014;32:3520-3526.*				

Paclitaxel with or without carboplatin or cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	175 mg/m2	IV	on Day 1	Cycled every 21 days	
Carboplatin	AUC 5	IV	on Day 1		
or					
Paclitaxel	60-80 mg/m2	IV	on D1,8,15	Cycled every 28 days	
Cisplatin	70-80 mg/m2	IV	on Day 1		
or					
Paclitaxel	135–200mg/m2	IV	on Day 1	Cycled every 21 days	

Cisplatin	75 mg/m2	IV	on Day 1	
or				
Paclitaxel	90 mg/m2	IV	on Day 1	Cycled every 14 days
Cisplatin	50 mg/m2	IV	on Day 1	
or				
Paclitaxel	135-250mg/m2	IV	on Day 1	Cycled every 21 days
or				
Paclitaxel	60-80 mg/m2	IV	on D1,8,15	Cycled every 28 days
Ref.	*1. Gadgeel SM, Shields AF, Heilbrun LK, et al. Phase II study of paclitaxel and carboplatin in patients with advanced gastric cancer. Am J Clin Oncol 2003;26:37-41.* *2. Ilson DH, Forastiere A, Arquette M, et al. A phase II trial of paclitaxel and cisplatin in patients with advanced carcinoma of the esophagus. Cancer J 2000;6:316-323.* *3. Petrasch S, Welt A, Reinacher A, et al. Chemotherapy with cisplatin and paclitaxel in patients with locally advanced, recurrent or metastatic oesophageal cancer. Br J Cancer 1998;78:511-514.* *4. Ajani JA, Ilson DH, Daugherty K, et al. Activity of taxol in patients with squamous cell carcinoma and adenocarcinoma of the esophagus. J Natl Cancer Inst 1994;86:1086-1091.* *5. Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial. J Clin Oncol 2013;31:4438-4444.*			

Docetaxel with or without cisplatin

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxel	70-85 mg/m2	IV	D1	every 21 days	
Cisplatin	70–75 mg/m2	IV	D1		
or					
Docetaxel	30 - 35 mg/m^2	IV	D1、8	every 21 days	
or					

Docetaxel	22 - 25 mg/m^2	IV	D1、8、15	every 28 days	
or					
Docetaxel	60-75mg/m2	IV	D1	every 21 days	
Ref.	*1.Ajani JA, Fodor MB, Tjulandin SA, et al. Phase II multi-institutional randomized trial of docetaxel plus cisplatin with or without fluorouracil in patients with untreated, advanced gastric, or gastroesophageal adenocarcinoma. J Clin Oncol 2005;23:5660-5667.* *2.Kim JY, Do YR, Park KU, et al. A multi-center phase II study of docetaxel plus cisplatin as first-line therapy in patients with metastatic squamous cell esophageal cancer. Cancer Chemother Pharmacol 2010;66:31-36.*				

Fluoropyrimidine

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Leucovorin	400 mg/m2	IV	D1	Cycled every 14 days	
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
or					
Capecitabine	850–1000 mg/m2	PO	BID,on D 1–14	Cycled every 21 days	
or					
Fluorouracil	750-1000mg/m2	IV	IV continuous infusion over 24 hours daily on Days 1-4	Cycled every 28 days	
Ref.	*1. Bouche O, Raoul JL, Bonnetain F, et al. Randomized multicenter phase II trial of a biweekly regimen of fluorouracil and leucovorin (LV5FU2), LV5FU2 plus cisplatin, or LV5FU2 plus irinotecan in patients with previously untreated metastatic gastric cancer: a Federation Francophone de Cancerologie Digestive Group Study-FFCD 9803. J Clin Oncol 2004;22:4319-4328.* *2. Ohtsu A, Shimada Y, Shirao K, et al. Randomized phase III trial of fluorouracil alone versus fluorouracil plus cisplatin versus uracil and tegafur plus mitomycin in patients with unresectable, advanced gastric cancer: The Japan Clinical Oncology Group Study (JCOG9205). J Clin Oncol 2003;21:54-59.*				

	3. Hong YS, Song SY, Lee SI, et al. A phase II trial of capecitabine in previously untreated patients with advanced and/or metastatic gastric cancer. Ann Oncol 2004;15:1344-1347.

Docetaxel, cisplatin or oxaliplatin, and fluorouracil

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxel	40 mg/m2	IV	on Day 1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	on Day 1		
Fluorouracil	400 mg/m2	IV	on Day 1		
Fluorouracil	1000 mg/m2/day	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Cisplatin	40 mg/m2	IV	on Day 3		
or					
Docetaxel	50 mg/m2	IV	on Day 1	Cycled every 14 days	
Oxaliplatin	85 mg/m2	IV	on Day 1		
Fluorouracil	1200 mg/m2/day	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*1. Shah MA, Janjigian YY, Stoller R, et al. Randomized multicenter phase II study of modified docetaxel, cisplatin, and fluorouracil (DCF) versus DCF plus growth factor support in patients with metastatic gastric adenocarcinoma: a study of the US Gastric Cancer Consortium. J Clin Oncol 2015;33:3874-3879.* *2. Blum Murphy MA, Qiao W, Mewada N, et al. A phase I/II study of docetaxel, oxaliplatin, and fluorouracil (D-FOX) chemotherapy in patients with untreated locally unresectable or metastatic adenocarcinoma of the stomach and gastroesophageal junction. Am J Clin Oncol 2018;41:321-325.*				

TS-1 (TS-1)

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tegafur/potassium oxonate/gimeracil	40mg	PO	Bid	4 weeks on, 2 weeks off (or 2 weeks on, 1 weeks off), for 1 year	BSA < 1.25
OR					
Tegafur/potassium oxonate/gimeracil	50mg	PO	Bid		BSA 1.25 - 1.5
Tegafur/potassium oxonate/gimeracil	60mg	PO	Bid		BSA ≧1.5
Ref.	*Sakuramoto S, et al. Adjuvant chemotherapy for gastric cancer with S-1, an oral fluoropyrimidine. N Engl J Med. 2007;357:1810. S-1 Monotherapy as Second- or Third-Line Chemotherapy for Unresectable and Recurrent Esophageal Squamous Cell Carcinoma Akutsu Y. · Kono T. · Uesato M. · Hoshino I. · Narushima K. · Hanaoka T. · Tochigi T. · Semba Y. · Qin W. · Matsubara H. Department of Frontier Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

(SQUAMOUS CELL CARCINOMA AND ADENOCARCINOMA)

MSI-H/dMMR tumors (independent of PD-L1 status)

Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Pembrolizumab	200 mg	IV	D1	Cycled every 21 days	(up to 2 years)
or					
Pembrolizumab	400 mg	IV	D1	Cycled every 6weeks	
Ref.	*1.Kojima T, Shah MA, Muro K, et al. Randomized Phase III KEYNOTE-181 Study of Pembrolizumab Versus Chemotherapy in Advanced Esophageal Cancer. J Clin Oncol 2020;38:4138-4148.* *2. Lala M, Li TR, de Alwis DP, et al. A six-weekly dosing schedule for pembrolizumab in patients with cancer based on evaluation using modelling and simulation. Eur J Cancer 2020;131:68-75.*				

Nivolumab and ipilimumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	240 mg	IV		every 2 weeks	For 16 weeks, followed by Nivolumab 240 mg IV every 2 weeks or Nivolumab 480 mg IV every 4 weeks (maximum of 2 years)
Ipilimumab	1 mg/kg	IV		every 6 weeks	
Ref.	*Janjigian YY, Shitara K, Moehler M, et al. First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastro-oesophageal junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. Lancet 2021;398:27-40.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

(ADENOCARCINOMA)

MSI-H/dMMR tumors (independent of PD-L1 status)

Fluoropyrimidine (fluorouracila or capecitabine), oxaliplatin, and nivolumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	360 mg	IV	on Day 1 (per study maximum of 2 years)	Cycled every 21 days	
Capecitabine	850–1000 mg/m2	PO	BID.on D 1–14		
Oxaliplatin	130 mg/m2	IV	on Day 1		
or					
Nivolumab	240 mg	IV	on Day 1 (per study maximum of 2 years)	Cycled every 14 days	
Oxaliplatin	85 mg/m2	IV	on Day 1		
Leucovorin	400mg	IV	continuous infusion over 24 hours daily on Days 1		
Fluorouraci	400mg	IV push	D1		
Fluorouraci	1200mg/m^2/day	IV	continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Janjigian YY, Shitara K, Moehler M, et al. First-line nivolumab plus chemotherapy versus chemotherapy alone for advanced gastric, gastro oeso junction, and oesophageal adenocarcinoma (CheckMate 649): a randomised, open-label, phase 3 trial. Lancet 2021;398:2740.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

(ADENOCARCINOMA)

MSI-H/dMMR tumors (independent of PD-L1 status)

Fluoropyrimidine, oxaliplatin, and pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Pembrolizumab	200 mg	IV	every 21 days for up to 2 years	Cycled every 21 days for up to 6 cycles (total 18 weeks)	
Capecitabine	850–1000 mg/m2	PO	BID, D1–14		
Oxaliplatin	130 mg/m2	IV	drip 90-120 mins, on Day 1		
or					
Pembrolizumab	200 mg	IV	every 21 days for up to 2 years	Cycled every 14 days for up to 9 cycles (total 18 weeks)	
Oxaliplatin	85 mg/m2	IV	on Day 1		
Leucovorin	400 mg/m2	IV	on Day 1		
Fluorouracil	400 mg/m2	IV Push	on Day 1		
Fluorouracil	1200 mg/m2	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Rha SY, Oh DY, Yanez P, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double- blind, phase 3 trial. Lancet Oncol 2023;24:1181- 1195.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(SECOND-LINE AND SUBSEQUENT THERAPY)

PREFERRED REGIMENS

Nivolumab

Drug Combinatio	Dosage	Route of administration	Times	Frequency/Duration	Notes
Nivolumab	240 mg/m2	IV	D1	every 14days	for second-line therapy for esophageal SCC
or					
nivolumab	480mg	IV	D1	every 28days	
Ref.	*Kato K, Cho BC, Takahashi M, et al. Nivolumab versus chemotherapy in patients with advanced oesophageal squamous cell carcinoma refractory or intolerant to previous chemotherapy(ATTRACTION-3): a multicentre, randomised, open- label, phase 3 trial. Lancet Oncol 2019;20:1506- 1517.*				

Pembrolizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Pembrolizumab	200mg/m2	IV	D1	every 21days	for second-line therapy for esophageal SCC with PD-L1 expression levels by CPS of >=10
or					
Pembrolizumab	400mg	IV	D1	every 6 weeks	
Ref.	*1.Kojima T, Shah MA, Muro K, et al. Randomized Phase III KEYNOTE-181 Study of Pembrolizumab Versus Chemotherapy in Advanced Esophageal Cancer. J Clin Oncol 2020;38:4138-4148.* *2. Lala M, Li TR, de Alwis DP, et al. A six-weekly dosing schedule for pembrolizumab in patients with cancer based on evaluation using modelling and simulation. Eur J Cancer 2020;131:68-75.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(SECOND-LINE AND SUBSEQUENT THERAPY)

Taxane

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxe	75-100mg/m2	IV	D1	every 21days	
or					
Paclitaxel	135-250mg/m2	IV	D1	every 21days	
or					
Paclitaxel	80mg/m2	IV	D1	weekly	
or					
Paclitaxel	80mg/m2	IV	D1,8,15	every 28days	
Ref.	*1Albertsson M, Johansson B, Friesland S, et al. Phase II studies on docetaxel alone every third week, or weekly in combination with gemcitabine in patients with primary locally advanced, metastatic, or recurrent esophageal cancer. Med Oncol 2007;24:407-412.* *2 Ford ER, Marshall A, Bridgewater JA, et al. Docetaxel versus active symptom control for refractory oesophagogastric adenocarcinoma (COUGAR-02): an open-label, phase 3 randomised controlled trial. Lancet Oncol 2014;15:78-86.* *3 Ajani JA, Ilson DH, Daugherty K, et al. Activity of taxol in patients with squamous cell carcinoma and adenocarcinoma of the esophagus. J Natl Cancer Inst 1994;86:1086-1091.* *4 Ilson DH, Wadleigh RG, Leichman LP, Kelsen DP. Paclitaxel given by a weekly 1-h infusion in advanced esophageal cancer. Ann Oncol 2007;18:898-902.* *5 Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial J Clin Oncol 2013;31:4438-4444.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(SECOND-LINE AND SUBSEQUENT THERAPY)

Irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	150-180mg/m2	IV	D1	every 14days	
or					
Irinotecan	125mg/m2	IV	D1,8	every 21days	
or					
Irinotecan	250-350mg/m2	IV	D1	every 21days	
Ref.	*1.Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial J Clin Oncol 2013;31:4438-4444.* *2. Sym SJ, Hong J, Park J, et al. A randomized phase II study of biweekly irinotecan monotherapy or a combination of irinotecan plus 5-fluorouracil/ leucovorin (mFOLFIRI) in patients with metastatic gastric adenocarcinoma refractory to or progressive after first-line chemotherapy. Cancer Chemother Pharmacol 2013;71:481-488.* *3 Fuchs CS, Moore MR, Harker G, et al. Phase III comparison of two irinotecan dosing regimens in second-line therapy of metastatic colorectal cancer. J Clin Oncol 2003;21:807-814.* *4.Thuss-Patience PC, Kretzschmar A, Bichev D, etal. Survival advantage for irinotecan versus best supportive care as second-line chemotherapy in gastric cancer--a randomised phase III study of the Arbeitsgemeinschaft Internistische Onkologie (AIO). Eur J Cancer 2011;47:2306-2314.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(SECOND-LINE AND SUBSEQUENT THERAPY)

Fluorouracil and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	180 mg/m2	IV	D1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	D1		
Fluorouracil	400 mg/m2	IV Push	D1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Sym SJ, Hong J, Park J, et al. A randomized phase II study of biweekly irinotecan monotherapy or a combination of irinotecan plus 5-fluorouracil/ leucovorin (mFOLFIRI) in patients with metastatic gastric adenocarcinoma refractory to or progressive after first-line chemotherapy. Cancer Chemother Pharmacol 2013;71:481-488.*				

Tislelizumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Tislelizumab	200mg	IV	D1	every 21 days	
Ref.	*1. Ajani J, El Hajbi F, Cunningham D, et al. Tislelizumab versus chemotherapy as second- line treatment for European and North American patients with advanced or metastatic esophageal squamous cell carcinoma: a subgroup analysis of the randomized phase III RATIONALE-302 study.ESMO Open 2024;9:102202.Esophageal Squamous Cell Carcinoma (RATIONALE-302): A Randomized Phase III Study. J Clin Oncol 2022;40:3065-3076.* *2 Shen L, Kato K, Kim SB, et al. Tislelizumab Versus Chemotherapy as Second-Line Treatment for Advanced or Metastatic Esophageal Squamous Cell Carcinoma (RATIONALE-302): A Randomized Phase III Study. J Clin Oncol 2022;40:3065-3076.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

SQUAMOUS CELL CARCINOMA(SECOND-LINE AND SUBSEQUENT THERAPY)

OTHER RECOMMENDED REGIMENS

Irinotecan and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	65mg/m2	IV	D1,8	Cycled every 21 days	
cisplatin	25-30 mg/m2	IV	D1,8		
Ref.	*1.Enzinger PC, Burtness BA, Niedzwiecki D, et al. CALGB 80403 (Alliance)/E1206: a randomized phase II study of three chemotherapy regimens plus cetuximab in metastatic esophageal and gastroesophageal junction cancers. J Clin Oncol 2016;34:2736-2742.* *2.Ilson DH. Phase II trial of weekly irinotecan/cisplatin in advanced esophageal cancer. Oncology (Williston Park) 2004;18:22-25.*				

Docetaxel and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	50mg/m2	IV	D1,8	Cycled every 21 days	
Docetaxel	35 mg/m2	IV	D1,8		
Ref.	*Burtness B, Gibson M, Egleston B, et al. Phase II trial of docetaxel-irinotecan combination in advanced esophageal cancer. Ann Oncol 2009;20:1242-1248.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (SECOND-LINE AND SUBSEQUENT THERAPY)

PREFERRED REGIMENS

Ramucirumab and paclitaxel

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Paclitaxel	80mg/m2	IV	D1,8,15	Cycled every 28 days	
Ramucirumab	8mg/kg	IV	D1,15		
Ref.	*Wilke H, Muro K, Van Cutsem E, et al. Ramucirumab plus paclitaxel versus placebo plus paclitaxel in patients with previously treated advanced gastric or gastro-oesophageal junction adenocarcinoma (RAINBOW): a double- blind, randomised phase 3 trial. Lancet Oncol 2014;15:1224-1235.*				

Fam-trastuzumab deruxtecan-nxki

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trastuzumab	6.4 mg/kg	IV	D1	every 21 days	(for HER2 overexpression-positive adenocarcinoma)
Ref.	*Shitara K, Bang YJ, Iwasa S, et al. Trastuzumab Deruxtecan in Previously Treated HER2-Positive Gastric Cancer. N Engl J Med 2020;382:2419-2430*				

Taxane

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Docetaxe	75-100mg/m^2	IV	D1	every 21days	
or					
Paclitaxel	135-250mg/m^2	IV	D1	every 21days	
or					
Paclitaxel	80mg/m^2	IV	D1	weekly	
or					

Paclitaxel	80mg/m²	IV	D1,8,15	every 28days	
Ref.	*1Albertsson M, Johansson B, Friesland S, et al. Phase II studies on docetaxel alone every third week, or weekly in combination with gemcitabine in patients with primary locally advanced, metastatic, or recurrent esophageal cancer. Med Oncol 2007;24:407-412.* *2 Ford ER, Marshall A, Bridgewater JA, et al. Docetaxel versus active symptom control for refractory oesophagogastric adenocarcinoma (COUGAR-02): an open-label, phase 3 randomised controlled trial. Lancet Oncol 2014;15:78-86.* *3 Ajani JA, Ilson DH, Daugherty K, et al. Activity of taxol in patients with squamous cell carcinoma and adenocarcinoma of the esophagus. J Natl Cancer Inst 1994;86:1086-1091.* *4 Ilson DH, Wadleigh RG, Leichman LP, Kelsen DP. Paclitaxel given by a weekly 1-h infusion in advanced esophageal cancer. Ann Oncol 2007;18:898-902.* *5 Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial J Clin Oncol 2013;31:4438-4444.*				

Irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	150-180mg/m²	IV	D1	every 14days	
or					
Irinotecan	125mg/m²	IV	D1,8	every 21days	
or					
Irinotecan	250-350mg/m²	IV	D1	every 21days	
Ref.	*1.Hironaka S, Ueda S, Yasui H, et al. Randomized,open-label, phase III study comparing irinotecan with paclitaxel in patients with advanced gastric cancer without severe peritoneal metastasis after failure of prior combination chemotherapy using fluoropyrimidine plus platinum: WJOG 4007 trial J Clin Oncol 2013;31:4438-4444.* *2. Sym SJ, Hong J, Park J, et al. A randomized phase II study of biweekly irinotecan monotherapy or a combination of irinotecan plus 5-fluorouracil/ leucovorin (mFOLFIRI) in patients with metastatic gastric adenocarcinoma refractory to or progressive after first-line chemotherapy. Cancer Chemother Pharmacol 2013;71:481-488.*				

	3 Fuchs CS, Moore MR, Harker G, et al. Phase III comparison of two irinotecan dosing regimens in second-line therapy of metastatic colorectal cancer. J Clin Oncol 2003;21:807-814. *4.Thuss-Patience PC, Kretzschmar A, Bichev D, etal. Survival advantage for irinotecan versus best supportive care as second-line chemotherapy in gastric cancer--a randomised phase III study of the Arbeitsgemeinschaft Internistische Onkologie (AIO). Eur J Cancer 2011;47:2306-2314.*

Fluorouracil and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	180 mg/m2	IV	D1	Cycled every 14 days	
Leucovorin	400 mg/m2	IV	D1		
Fluorouracil	400 mg/m2	IV Push	D1		
Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Sym SJ, Hong J, Park J, et al. A randomized phase II study of biweekly irinotecan monotherapy or a combination of irinotecan plus 5-fluorouracil/ leucovorin (mFOLFIRI) in patients with metastatic gastric adenocarcinoma refractory to or progressive after first-line chemotherapy. Cancer Chemother Pharmacol 2013;71:481-488.*				

Trifluridine and tipiracl

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Trifluridine and tipiracil	35 mg/m2 up to a maximum dose of 80 mg per dose	PO	Bid,on Days 1–5 and 8–12	Cycled every 28 days	(for third-line or subsequent therapy for EGJ adenocarcinoma)
Ref.	*Shitara K, Doi T, Dvorkin M, et al. Trifluridine/tipiracil versus placebo in patients with heavily pretreated metastatic gastric cancer (TAGS): a randomised, double-blind, placebo-controlled, phase 3 trial. Lancet Oncol 2018;19:1437-1448.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

ADENOCARCINOMA (SECOND-LINE AND SUBSEQUENT THERAPY)

OTHER RECOMMENDED REGIMENS

Ramucirumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Ramucirumab	8mg/kg	IV	D1	Cycled every 14 days	
Ref.	*Fuchs CS, Tomasek J, Yong CJ, et al. Ramucirumab monotherapy for previously treated advanced gastric or gastro-oesophageal junction adenocarcinoma (REGARD): an international, randomised, multicentre, placebo-controlled, phase 3 trial. Lancet 2014;383:31-39.*				

Irinotecan and cisplatin

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	65mg/m2	IV	D1,8	Cycled every 21 days	
cisplatin	25-30 mg/m2	IV	D1,8		
Ref.	*1.Enzinger PC, Burtness BA, Niedzwiecki D, et al. CALGB 80403 (Alliance)/E1206: a randomized phase II study of three chemotherapy regimens plus cetuximab in metastatic esophageal and gastroesophageal junction cancers. J Clin Oncol 2016;34:2736-2742.* *2.Ilson DH. Phase II trial of weekly irinotecan/cisplatin in advanced esophageal cancer. Oncology (Williston Park) 2004;18:22-25.*				

Fluorouracil and irinotecan + ramucirumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Ramucirumab	8mg/kg	IV	D1	Cycled every 14 days	(only for adenocarcinoma)
Irinotecan	180mg/m2	IV	D1		
Leucovorin	400 mg/m2	IV	D1		
Fluorouracil	400 mg/m2	IV Push	D1		

Fluorouracil	1200 mg/m2/days	IV	IV continuous infusion over 24 hours daily on Days 1 and 2		
Ref.	*Tabernero J, Yoshino T, Cohn AL, et al. Ramucirumab versus placebo in combination with second-line FOLFIRI in patients with metastatic colorectal carcinoma that progressed during or after first-line therapy with bevacizumab, oxaliplatin, and a fluoropyrimidine (RAISE): a randomised, double-blind, multicentre, phase 3 study. Lancet Oncol 2015;16:499-508.*				

irinotecan + ramucirumab

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Ramucirumab	8mg/kg	IV	D1	Cycled every 14 days	(only for adenocarcinoma)
Irinotecan	180mg/m2	IV	D1		
Ref.	*Sakai D, Boku N, Kodera Y, et al. An intergroup phase III trial of ramucirumab plus irinotecan in third or more line beyond progression after ramucirumab for advanced gastric cancer (RINDBeRG trial). J Clin Oncol 2018;36:TPS4138.*				

Docetaxel and irinotecan

Drug Combination	Dosage	Route of administration	Times	Frequency/Duration	Notes
Irinotecan	50mg/m2	IV	D1,8	Cycled every 21 days	
Docetaxel	35 mg/m2	IV	D1,8		
Ref.	*Burtness B, Gibson M, Egleston B, et al. Phase II trial of docetaxel-irinotecan combination in advanced esophageal cancer. Ann Oncol 2009;20:1242-1248.*				

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated) (SQUAMOUS CELL CARCINOMA AND ADENOCARCINOMA)

Useful in Certain Circumstances

For NTRK gene fusion-positive tumors

Regimen	**Entrectinib**
藥名(學名)	Entrectinib 600 mg PO once daily
Ref.	*Doebele RC, Drilon A, Paz-Ares L, et al. Entrectinib in patients with advanced or metastatic NTRK fusion- positive solid tumours: integrated analysis of three phase 1-2 trials. Lancet Oncol 2020;21:271-282.*

Regimen	Larotrectinib
藥名(學名)	Larotrectinib 100 mg PO twice daily
Ref.	*Drilon A, Laetsch TW, Kummar S, et al. Efficacy of larotrectinib in TRK fusion-positive cancers in adults and children. N Engl J Med 2018;378:731-739.*

Regimen	Repotrectinib
藥名(學名)	Repotrectinib 160 mg PO Daily Days 1–14 of cycle 1 160 mg PO BID Days 15–28 of cycle 1 160 mg PO BID Days 1-28 of cycle 2 and beyond Cycled every 28 days
Ref.	*Solomon BJ, Drilon A, Lin JJ, et al. 1372P Repotrectinib in patients (pts) with NTRK fusion- positive (NTRK+) advanced solid tumors, including NSCLC: Update from the phase I/II TRIDENT-1 trial. Annals of Oncology 2023;34:S787-S788.*

Systemic Therapy for Unresectable Locally Advanced, Recurrent, or Metastatic Disease (where local therapy is not indicated)

(SQUAMOUS CELL CARCINOMA AND ADENOCARCINOMA)

Useful in Certain Circumstances

For BRAF V600E-mutated tumors

Regimen	Dabrafenib and trametinib
藥名	Dabrafenib 150 mg PO twice daily Trametinib 2 mg PO daily
Ref.	*Salama AKS, Li S, Macrae ER, et al. Dabrafenib and trametinib in patients with tumors with BRAF(V600E) mutations: Results of the NCI-MATCH trial subprotocol H. J Clin Oncol 2020;38:3895-3904.*

For RET gene fusion-positive tumors

Regimen	Selpercatinib
藥名	Selpercatinib Patients >=50 kg: 160 mg PO twice daily Patients < 50 kg: 120 mg PO twice daily
Ref.	*Salama AKS, Li S, Macrae ER, et al. Dabrafenib and trametinib in patients with tumors with BRAF(V600E) mutations: Results of the NCI-MATCH trial subprotocol H. J Clin Oncol 2020;38:3895-3904.*

八、放射治療原則

Treatment Regimen
CCRT：
Definitive RT：Total dose of 45–60 Gy.
Neoadjuvant / Adjuvant RT：Total dose of 41.4–54 Gy.
Note：Radiotherapy should be delivered using intensity-modulated radiotherapy or more advanced techniques.

Chun, S. G., Skinner, H. D., & Minsky, B. D. (2017). Radiation therapy for locally advanced esophageal cancer. Surgical Oncology Clinics, 26(2), 257-276.
備註：若個別病人因不同臨床狀況，有需要其他非指引設定之劑量者，需提案至多專科團隊會議討論備案方可執行。

九、支持性治療(Supportive treatment)原則

- 避免因可控制的急性毒性而中斷治療或減少劑量。積極的監測及支持治療比中斷治療更好。
- 在放射治療過程中，至少每週檢查一次患者的狀態，記錄生命徵象、體重和全血球計數。
- 應在適當的時機以預防為基礎給予止吐藥。評估患者狀況後對症下藥，例如 :開立制酸劑或止瀉藥。
- 熱量攝入<1500 kcal/天，應考慮腸內或靜脈輸液營養。視患者狀況，放置空腸造廔或鼻胃管讓足夠的熱量攝入。
- 在整個放化療和恢復過程中，充分的腸內或靜脈輸液是必要的。

十、安寧緩和照護原則

若預期疾病難以治癒時，病人存活期小於6個月便適合安寧療護（Pomeranz & Brustman, 2005；Waldrop & Rinfrette, 2009）。若藉由症狀、檢驗數據、及確切的腫瘤診斷，證實臨床上該惡性腫瘤已經廣泛侵犯、或進展快速；功能分數（Palliative Performance Scale）低於70%；拒絕進一步腫瘤治癒性治療，或在治療之下仍持續惡化者，即可轉介緩和醫療團隊（彭等，2006）。

註 1：實際情況及手術與否需與胸腔外科/腫瘤內科及放射腫瘤科等多專科團隊討論
Note: All recommendations are category 2A unless otherwise indicated.
Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

十一、參考文獻

1. NCCN Clinical Practice Guidelines in Oncology (NCCN Guideline) Esophageal Cancers and Esophagogastric Junction Version 2.2026.
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3. Hoeppner J, Brunner T, Schmoor C, et al. Perioperative chemotherapy or preoperative chemoradiotherapy in esophageal cancer. N Engl J Med 2025;392:323-335.
4. Qiu MZ, Oh DY, Kato K, et al. RATIONALE-305Investigators. Tislelizumab plus chemotherapy versus placebo plus chemotherapy as first line treatment for advanced gastric or gastro-oesophageal junction adenocarcinoma:RATIONALE-305 randomised, double blind, phase 3 trial. BMJ 2024;385:e078876.
5. Andre T, Tougeron D, Piessen G, et al. Neoadjuvant Nivolumab Plus Ipilimumab and Adjuvant Nivolumab in Localized Deficient Mismatch Repair/Microsatellite Instability-High Gastric or Esophagogastric Junction Adenocarcinoma: The GERCOR NEONIPIGA Phase II Study. J Clin Oncol 2023;41:255-265
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十二、食道癌完治定義

<table>
<tr><th>癌別</th><th colspan="2">期別</th><th>治療方式</th><th>完治定義</th></tr>
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1 期</td><td>OP</td><td>EMR/ESD or OP：Margin free</td></tr>
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or
Neo-adjuvant CCRT+OP
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Definitive CCRT</td><td>1.術後 Margin free
2.Margin (+) → Adjuvant CCRT 結束日
3.Definitive CCRT 結束日</td></tr>
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Definitive CCRT</td><td>1.術後 Margin free
2.Margin (+) → Adjuvant CCRT 結束日
3.Definitive CCRT 結束日</td></tr>
<tr><td>4 期</td><td>Systemic therapy</td><td>1.Definitive CCRT 結束日
2.Palliative C/T 達三個月(含口服化療 Ufur)
3.Palliative C/T 未達三個月，評估病患治療反應不佳，改二線藥持續治療，第一次治療就可算完治
4.治療中轉安寧</td></tr>
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