Clinical Trials: The NCCN recommends cancer patient participation in clinical trials as the gold standard for treatment. Cancer therapy selection, dosing, administration, and the management of related adverse events can be a complex process that should be handled by an experienced healthcare team. Clinicians must choose and verify treatment options based on the individual patient; drug dose modifications and supportive care interventions should be administered accordingly. The cancer treatment regimens below may include both U.S. Food and Drug Administration-approved and unapproved indications/regimens. These regimens are only provided to supplement the latest treatment strategies.

These Guidelines are a work in progress that may be refined as often as new significant data becomes available. The NCCN Guidelines® are a consensus statement of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN Guidelines® is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

**Principles of Systemic Therapy**
Chemotherapy regimens should be chosen in the context of performance status, medical comorbidities, toxicity profile, and HER2-neu expression (for adenocarcinoma only). Two-drug cytotoxic regimens are preferred for patients with advanced disease because of lower toxicity. Three-drug cytotoxic regimens should be reserved for medically fit patients with good performance status and access to frequent toxicity evaluation. Doses and schedules for any regimen that is not derived from category 1 evidence is a suggestion, and subject to appropriate modifications depending on the circumstances. Infusional fluorouracil and capecitabine may be used interchangeably (except as indicated). Cisplatin and oxaliplatin may be used interchangeably depending on toxicity profile.

### Preferred Regimens

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paclitaxel + carboplatin</strong></td>
<td><strong>Day 1:</strong> Paclitaxel 50mg/m² IV + carboplatin AUC 2mg/mL × min IV. Repeat weekly for 5 weeks.</td>
</tr>
<tr>
<td><strong>Cisplatin + 5-fluorouracil (5-FU)</strong></td>
<td><strong>Days 1 and 29:</strong> Cisplatin 75–100mg/m² IV Repeat weekly for 5 weeks. <strong>Days 1–4 and 29–32:</strong> 5-FU 750–1000mg/m² IV continuous infusion over 24 hours. <strong>OR Days 1–5:</strong> Cisplatin 15mg/m² IV once daily plus 5-FU 800mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 21 days for 2 cycles.</td>
</tr>
<tr>
<td><strong>Oxaliplatin + 5-FU</strong></td>
<td><strong>Days 1, 15, and 29:</strong> Oxaliplatin 85mg/m² IV <strong>Days 1–33:</strong> 5-FU 180mg/m² IV. <strong>OR Day 1:</strong> Oxaliplatin 85mg/m² and leucovorin 400mg/m² followed by 5-FU 400mg/m² bolus, then 800mg/m² 24-hour continuous infusion over days 1 and 2; the first 3 cycles were delivered during radiotherapy (RT), the other 3 after RT; 6 bimonthly (14 days) cycles.</td>
</tr>
<tr>
<td><strong>Cisplatin + capecitabine</strong></td>
<td><strong>Day 1:</strong> Cisplatin 30mg/m² IV <strong>Days 1–5:</strong> Capecitabine 800mg/m² orally twice daily. Repeat cycle weekly for 5 weeks.</td>
</tr>
<tr>
<td><strong>Oxaliplatin + capecitabine</strong></td>
<td><strong>Days 1, 15, and 29:</strong> Oxaliplatin 85mg/m² IV <strong>Days 1–5:</strong> Capecitabine 625mg/m² orally twice daily for 5 weeks.</td>
</tr>
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</table>

### Other Regimens

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Irinotecan + cisplatin</strong></td>
<td><strong>Days 1, 8, 22, 29:</strong> Irinotecan 65mg/m² IV plus cisplatin 30mg/m² IV.</td>
</tr>
<tr>
<td><strong>Paclitaxel + 5-FU</strong></td>
<td><strong>Day 1:</strong> Paclitaxel 45–50mg/m² IV weekly <strong>Days 1–5:</strong> 5-FU 300mg/m² IV continuous infusion. Weekly for 5 weeks.</td>
</tr>
<tr>
<td><strong>Paclitaxel + capecitabine</strong></td>
<td><strong>Day 1:</strong> Paclitaxel 45–50mg/m² IV <strong>Days 1–5:</strong> Capecitabine 625–825mg/m² orally BID. Weekly for 5 weeks.</td>
</tr>
<tr>
<td><strong>Epirubicin + cisplatin + 5-FU (ECF)</strong></td>
<td><strong>Day 1:</strong> Epirubicin 50mg/m² IV bolus + cisplatin 60mg/m² IV <strong>Days 1–21:</strong> 5-FU 200mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 21 days for 3 cycles preoperatively and 3 cycles postoperatively.</td>
</tr>
<tr>
<td><strong>ECF modification: epirubicin + oxaliplatin + 5-FU</strong></td>
<td><strong>Day 1:</strong> Epirubicin 50mg/m² IV; oxaliplatin 130mg/m² IV <strong>Days 1–21:</strong> 5-FU 200mg/m² IV continuous infusion over 24 hours. Repeat cycle every 21 days for 3 cycles preoperatively and 3 cycles postoperatively.</td>
</tr>
<tr>
<td><strong>ECF modification: epirubicin + cisplatin + capecitabine</strong></td>
<td><strong>Day 1:</strong> Epirubicin 50mg/m² IV; cisplatin 60mg/m² IV <strong>Days 1–21:</strong> Capecitabine 625mg/m² orally twice daily. Repeat cycle every 21 days for 3 cycles preoperatively and 3 cycles postoperatively.</td>
</tr>
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</table>

**continued**
### Perioperative Chemotherapy (including esophagogastric junction)

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSSING</th>
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</table>
| ECF modification: epirubicin + oxaliplatin + capecitabine | **Day 1:** Epirubicin 50mg/m² IV; oxaliplatin 130mg/m² IV  
**Days 1–21:** Capecitabine 625mg/m² orally twice daily. Repeat cycle every 21 days for 3 cycles preoperatively and 3 cycles postoperatively. |
| 5-FU + cisplatin | **Day 1:** Cisplatin 75–80mg/m² IV  
**Days 1–5:** 5-FU 800mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 28 days for 2–3 cycles preoperatively and 3–4 cycles postoperatively for a total of 6 cycles. |

### Postoperative Chemoradiation (including esophagogastric junction)

<table>
<thead>
<tr>
<th>REGIMEN</th>
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</table>
| 5-FU + leucovorin (category 1) | **Cycles 1, 3, and 4 (before and after radiation)**  
**Days 1–5:** Leucovorin 20mg/m² IVP plus 5-FU 425mg/m²/day IVP  
Repeat cycle every 28 days.  
**Cycle 2 (with radiation)**  
**Days 1–4 and 31–33:** Leucovorin 20mg/m² IVP  
**Days 1–4:** 5-FU 400mg/m²/day IVP  
Repeat cycle every 35 days. |
| Capecitabine | **Days 1–14:** Capecitabine 750–1000mg/m² orally twice daily. Repeat cycle every 28 days; 1 cycle before and 2 cycles after chemoradiation. |
| 5-FU + leucovorin | **Days 1, 2, 15, and 16:** Leucovorin 400mg/m² IV followed by 5-FU 400mg/m² IVP and a 24-hour infusion of 5-FU 1200mg/m²; 1 cycle before and 2 cycles after chemoradiation. Repeat cycle every 28 days. |
| 5-FU with radiation | **Days 1–5 OR Days 1–7:** 5-FU 200–250mg/m² IV continuous infusion over 24 hours once daily; weekly for 5 weeks. |
| Capecitabine with radiation | **Days 1–5 OR Days 1–7:** Capecitabine 625–825mg/m² orally twice daily; weekly for 5 weeks. |

### Postoperative Chemotherapy

<table>
<thead>
<tr>
<th>REGIMEN</th>
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</table>
| Capecitabine + oxaliplatin | **Days 1–14:** Capecitabine 1000mg/m² orally twice daily  
**Day 1:** Oxaliplatin 130mg/m² IV. Repeat cycle every 21 days for 8 cycles. |
| Capecitabine + cisplatin | **Days 1–14:** Capecitabine 1000mg/m² orally twice daily  
**Day 1:** Cisplatin 60mg/m² IV. Repeat cycle every 21 days for 6 cycles. |

### Metastatic or Locally Advanced Cancer (where local therapy is not indicated)

<table>
<thead>
<tr>
<th>First-line Therapy</th>
<th>DOSSING</th>
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</thead>
</table>
| Trastuzumab + chemotherapy (NOTE: for HER2-neu malignancies) | **Day 1:** Trastuzumab 8mg/kg IV loading dose (Cycle 1 only); **followed by** trastuzumab 6mg/kg IV every 3 weeks, plus chemotherapy  
**OR**  
**Day 1 of Cycle 1:** Trastuzumab 6mg/kg IV loading dose, then 4mg/kg IV every 14 days.  
**Chemotherapy:**  
**Day 1:** Cisplatin 80mg/m² IV, **plus**  
**Days 1–14:** Capecitabine 1000mg/m² orally twice daily.  
**OR**  
**Days 1–5:** 5-FU 800mg/m² continuous IV infusion. Repeat cycle every 21 days for 6 cycles |
| Docetaxel + cisplatin + 5-FU (DCF) | **Day 1:** Docetaxel 75mg/m² IV + cisplatin 75mg/m² IV  
**Days 1–5:** 5-FU 1,000mg/m² IV continuous infusion over 24 hours, daily. Repeat cycle every 28 days. The panel does not recommend the above specified doses or schedule of cytotoxic agents because of concerns regarding toxicity. |
## GASTRIC CANCER TREATMENT REGIMENS (Part 3 of 7)

### Metastatic or Locally Advanced Cancer (where local therapy is not indicated)1

#### First-line Therapy (continued)

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
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</thead>
</table>
| **Modified DCF (docetaxel + cisplatin + leucovorin + 5-FU)23** | **Day 1:** Docetaxel 400mg/m² IV plus leucovorin 400mg/m² IV plus 5-FU 400mg/m²  
**Days 1 and 2:** 5-FU 1000mg/m² IV continuous infusion over 24 hours  
**Day 3:** Cisplatin 40mg/m² IV. Repeat cycle every 14 days. |
| **Modified DCF (docetaxel + oxaliplatin + 5-FU)24** | **Day 1:** Docetaxel 50mg/m² IV plus oxaliplatin 85mg/m²  
**Days 1 and 2:** 5-FU 1,200mg/m² IV continuous infusion over 24 hours. Repeat cycle every 14 days. |
| **Modified DCF (docetaxel + carboplatin + 5-FU)25** | **Day 1:** Docetaxel 75mg/m²  
**Day 2:** Carboplatin AUC 6mg/mL × min  
**Days 1-3:** 5-FU 1,200mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 21 days. |
| **ECF26** | **Day 1:** Epirubicin 50mg/m² IV bolus + cisplatin 60mg/m² IV  
**Days 1–21:** 5-FU 200mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 21 days. |
| **ECF modifications (epirubicin + oxaliplatin + 5-FU)27** | **Day 1:** Epirubicin 50mg/m² IV plus oxaliplatin 130mg/m² IV  
**Days 1–21:** Capecitabine 625mg/m² orally twice daily. Repeat cycle every 21 days. |
| **ECF modifications (epirubicin + cisplatin + capecitabine)27** | **Day 1:** Epirubicin 50mg/m² IV plus cisplatin 60mg/m² IV  
**Days 1–21:** Capecitabine 625mg/m²/m² orally twice daily. Repeat cycle every 21 days. |
| **Fluoropyrimidine and cisplatin (5-FU + cisplatin)23** | **Day 1:** Cisplatin 75–100mg/m² IV  
**Days 1–4:** 5-FU 1,000mg/m² IV continuous infusion over 24 hours daily. |
| **Fluoropyrimidine and cisplatin (5-FU + cisplatin + leucovorin)28–31** | **Day 1:** Cisplatin 50mg/m² IV plus leucovorin 200mg/m² IV plus 5-FU 2,000mg/m² IV continuous infusion over 24 hours. Repeat cycle every 14 days. |
| **Fluoropyrimidine and capecitabine (5-FU + cisplatin)28–31** | **Day 1:** Cisplatin 80mg/m² IV  
**Day 1–14:** Capecitabine 1000mg/m² orally twice daily. Repeat cycle every 3 weeks. |
| **Fluorouracil and irinotecan (irinotecan + leucovorin + 5-FU)34–36** | **Day 1:** Irinotecan 80mg/m² IV plus leucovorin 500mg/m² IV plus 5-FU 2000mg/m² IV continuous infusion over 24 hours. Weekly for 6 weeks followed by 1 week off treatment. OR weekly for 6 weeks followed by 2 weeks off treatment.  
**OR**  
**Day 1:** Irinotecan 150mg/m² IV plus leucovorin 20mg/m² IV  
**Days 1–2:** 5-FU 1000mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 14 days. |
### Metastatic or Locally Advanced Cancer (where local therapy is not indicated)  

#### Other Regimens

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
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</thead>
</table>
| **Paclitaxel + cisplatin or carboplatin**<sup>37-39</sup> | Day 1: Paclitaxel 135–200mg/m² IV  
Day 2: Cisplatin 75mg/m² IV.  
Repeat cycle every 21 days.  
**OR**  
Day 1: Paclitaxel 90mg/m² IV plus cisplatin 50mg/m² IV.  
Repeat cycle every 14 days.  
**OR**  
Day 1: Paclitaxel 200mg/m² IV plus carboplatin AUC 5mg/mL × min  
Repeat cycle every 21 days. |
| **Docetaxel + cisplatin**<sup>40,41</sup> | Day 1: Docetaxel 70–85mg/m² IV plus cisplatin 70–75mg/m² IV.  
Repeat cycle every 21 days. |
| **Docetaxel + irinotecan**<sup>42</sup> | Days 1 and 8: Docetaxel 35mg/m² IV plus irinotecan 50mg/m² IV.  
Repeat cycle every 21 days. |
| **Fluoropyridimine**<sup>32,43,44</sup> | Day 1: Leucovorin 400mg/m² IV plus 5-FU 400mg/m² IVP  
Days 1 and 2: 5-FU 1200mg/m² IV continuous infusion over 24 hours daily.  
Repeat cycle every 14 days.  
**OR**  
Days 1–5: 5-FU 800mg/m² IV continuous infusion over 24 hours daily.  
Repeat cycle every 28 days.  
**OR**  
Days 1–14: Capecitabine 1000–1250mg/m² orally twice daily.  
Repeat cycle every 21 days. |
| **Taxane**<sup>45-48</sup> | Day 1: Docetaxel 75–100mg/m² IV.  
Repeat cycle every 21 days.  
**OR**  
Day 1: Paclitaxel 135–250mg/m² IV.  
Repeat cycle every 21 days.  
**OR**  
Days 1, 8, 15 and 22: Paclitaxel 80mg/m² IV once weekly.  
Repeat cycle every 28 days. |

#### Second-line Therapy

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
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</thead>
</table>
| **Trastuzumab + chemotherapy** (NOT: for HER2-neu malignancies)<sup>23</sup> | Day 1: Trastuzumab 8mg/kg IV loading dose (Cycle 1 only); followed by trastuzumab 6mg/kg IV every 3 weeks, plus chemotherapy.  
**OR**  
Day 1 of Cycle 1: Trastuzumab 6mg/kg IV loading dose, then 4mg/kg IV every 14 days.  
**Chemotherapy:**  
Day 1: Cisplatin 80mg/m² IV, plus  
Days 1–14: Capecitabine 1000mg/m² orally twice daily  
OR  
Days 1–5: 5-FU 800mg/m² continuous IV infusion.  
Repeat cycle every 21 days for 6 cycles. |

#### Second-line Therapy (preferred regimens)

<table>
<thead>
<tr>
<th>REGIMEN</th>
<th>DOSING</th>
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</thead>
</table>
| **Ramucirumab for gastric and EGJ adenocarcinoma**<sup>49</sup> | Day 1: Ramucirumab 8mg/kg IV.  
Repeat cycle every 14 days. |
| **Ramucirumab + paclitaxel for gastric and EGJ adenocarcinoma**<sup>50</sup> | Day 1 and 15: Ramucirumab 8mg/kg IV  
Day 1, 8, and 15: Paclitaxel 80mg/m².  
Repeat cycle every 28 days. |
| **Docetaxel**<sup>49</sup> | Day 1: Docetaxel 75–100mg/m² IV.  
Repeat cycle every 21 days. |
| **Paclitaxel**<sup>50-52</sup> | Day 1: Paclitaxel 135–250mg/m² IV.  
Repeat cycle every 21 days.  
**OR**  
Day 1: Paclitaxel 80mg/m² IV once weekly.  
Repeat cycle every 28 days.  
**OR**  
Days 1, 8, and 15: Paclitaxel 80mg/m² IV.  
Repeat cycle every 28 days. |
**REGIMEN** | **DOsing**
--- | ---
**Irinotecan**<sup>35,51-53</sup> | **Day 1**: Irinotecan 250–350mg/m² IV. Repeat cycle every 21 days.  
**OR**  
**Day 1**: Irinotecan 150–180mg/m² IV. Repeat cycle every 14 days.  
**OR**  
**Days 1 and 8**: Irinotecan 125mg/m² IV. Repeat cycle every 21 days.

**Other Regimens**

**Irinotecan + cisplatin**<sup>32,54</sup> | **Days 1 and 8**: irinotecan 65mg/m² IV plus cisplatin 25–30mg/m² IV. Repeat cycle every 21 days.

**Irinotecan + fluoropyridimine**<sup>56,57</sup> | **Day 1**: Irinotecan 250mg/m² IV  
**Days 1–14**: Capecitabine 1000mg/m² PO BID daily. Repeat cycle every 21 days.

**Irinotecan + fluoropyridimine**<sup>56,57</sup> | **Day 1**: Irinotecan 180mg/m² IV plus leucovorin 400mg/m² IV plus 5-FU 400mg/m² IVP  
**Days 1 and 2**: 5-FU 600–1200mg/m²/day IV continuous infusion on Days 1 and 2. Repeat cycle every 14 days.

**Docetaxel + irinotecan**<sup>42</sup> | **Days 1 and 8**: Docetaxel 35mg/m² IV plus irinotecan 50mg/m² IV. Repeat cycle every 21 days.

**Alternative Regimens for Consideration**

**Mitomycin + irinotecan**<sup>57–59</sup> | **Day 1**: Mitomycin 6mg/m² IV  
**Days 2 and 9**: Irinotecan 125mg/m². Repeat cycle every 28 days.  
**OR**  
**Days 1 and 15**: Irinotecan 150mg/m² IV  
**Day 1**: Mitomycin 8mg/m² IV. Repeat cycle every 28 days.  
**OR**  
**Day 1**: Irinotecan 125mg/m² IV plus mitomycin 5mg/m² IV. Repeat cycle every 14 days.

**Mitomycin + leucovorin + 5-FU**<sup>60</sup> | **Days 1 and 22**: Mitomycin 10mg/m² IV  
**Day 1**: Leucovorin 500mg/m² IV plus 5-FU 2600mg/m²/day IV continuous infusion. Weekly for 6 weeks, followed by 2 weeks off treatment.

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**References**

References (continued)


References (continued)


