**Epithelial Ovarian Cancer**

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Note: If available, clinical trials should be considered as preferred treatment options for eligible patients (www.mdanderson.org/gynontrials). Other comorbidities are taken into consideration prior to treatment selection.

### CLINICAL PRESENTATION
- Pelvic mass
- Diagnosis by previous surgery or biopsy

### INITIAL EVALUATION
- Pelvic ultrasound
- CA 125
- Chest x-ray
- CT chest, abdomen, and pelvis with IV/PO contrast if concern for malignancy
- Other tumor markers if indicated
- Colonoscopy if indicated
- Family history with referral to genetic counseling and testing

### PRIMARY TREATMENT
- Hysterectomy/BSO with comprehensive staging or
- If Stage I, consider fertility sparing surgery and Oncofertility consult
- If Stage II - IV, cytoreductive surgery

### END OF PRIMARY TREATMENT EVALUATION
- CT chest, abdomen, and pelvis with IV/PO contrast
- CA 125
- Consider laparoscopy

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1 Consider MD Anderson approved biomarkers
2 Consider both germline and somatic mutation testing
3 See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice
4 If Stage I and patient desires fertility preservation – consider unilateral salpingo-oophorectomy (USO) and staging
5 See Appendix A for FIGO staging
7 Gynecology Oncology clinical trials

EOC = epithelial ovarian cancer
BSO = bilateral salpingo-oophorectomy
Epithelial Ovarian Cancer

STAGE

- Stage Ia, Ib
  - Low risk\(^1\)
  - No adjuvant therapy

- Stage Ic, II
  - High risk\(^2\)
  - Taxane and platinum doublet\(^3\) for at least 6 cycles
  - Reassessment
    - CA 125
    - CT chest, abdomen, and pelvis with IV/PO contrast

- Stage III, or IV
  - Greater than or equal to 1 cm residual tumor - Stage IVa or IVb
  - Taxane and platinum doublet\(^3\) with or without bevacizumab for at least 6 cycles

TREATMENT

See maintenance and/or relapsed/progression treatment on Page 3

Note: If available, clinical trials should be considered as preferred treatment options for eligible patients (www.mdanderson.org/gynonc trials). Other comorbidities are taken into consideration prior to treatment selection.

\(^1\) Low risk – Grade 1 endometrioid or low grade serous histology
\(^2\) High risk – Grade 2 or 3 endometrioid, high grade serous, clear cell, or carcinosarcoma
\(^3\) See Appendix B for Chemotherapy Regimens

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Maintenance Treatment

Stage III and IV Complete Remission
- Surveillance or Maintenance bevacizumab or Consider clinical trial

Stage III and IV Partial Remission
- Continue taxane and/or platinum agent or Second line chemotherapy or Hormonal therapy or Recommend next generation sequencing (NGS), MSI by PCR, and HLA testing for primary tumor

Relapsed/Progression Treatment

Serially rising CA 125
- Delay until clinical relapse treat as clinically indicated or BRCA testing, if not already performed or HRD tumor testing if germline BRCA testing negative
- NGS, MSI by PCR, and HLA testing for primary tumor or Available clinical trial

Progression or no response on primary chemotherapy or Relapse less than 6 months after stopping platinum-based chemotherapy (taxane and platinum resistant)
- Consider supportive care for selected patients or Salvage chemotherapy/biotherapy with or without bevacizumab or Hormonal therapy
- NGS, MSI by PCR, and HLA testing for primary tumor or Available clinical trial

Relapse greater than or equal to 6 months after stopping platinum-based chemotherapy
- Consider cytoreductive surgery or radiation therapy in selected patients
- Platinum-based doublet with or without bevacizumab plus bevacizumab maintenance therapy or Platinum doublet followed by PARP inhibitor maintenance therapy or BRCA testing, if not already performed or HRD tumor testing if germline BRCA testing negative or NGS, MSI by PCR, and HLA testing for primary tumor or Available clinical trial

NGS = next generation sequencing
MSI = microsatellite instability
HRD = homologous recombination deficiency
HLA = human leukocyte antigen

1 If given during primary therapy
2 Gynecology Oncology clinical trials
3 Symptomatic or radiologic
4 See Appendix B for Chemotherapy Regimens
5 Available clinical trial

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Department of Clinical Effectiveness V8
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## APPENDIX A: FIGO Staging

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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| I     | Tumor confined to ovaries or fallopian tube(s)  
IA: Tumor limited to one ovary (capsule intact) or fallopian tube; no tumor on ovarian or fallopian tube surface; no malignant cells in the ascites or peritoneal washings  
IB: Tumor limited to both ovaries (capsules intact) or fallopian tubes; no tumor on ovarian or fallopian tube surface; no malignant cells in the ascites or peritoneal washings  
IC: Tumor limited to one or both ovaries or fallopian tubes, with any of the following:  
IC1: Surgical spill  
IC2: Capsule ruptured before surgery or tumor on ovarian fallopian tube surface  
IC3: Malignant cells in ascites or peritoneal washings |
| II    | Tumor involves one or both ovaries or fallopian tubes with pelvic extension (below pelvic brim) or primary peritoneal cancer  
IIA: Extension and/or implants on uterus and/or fallopian tubes and/or ovaries  
IIB: Extension to other pelvic intraperitoneal tissues |
| III   | Tumor involves one or both ovaries or fallopian tubes, or primary peritoneal cancer, with cytologically or histologically confirmed spread to the peritoneum outside the pelvis and/or metastasis to the retroperitoneal lymph nodes  
IIIA1: Positive retroperitoneal lymph nodes only (cytologically or histologically proven)  
(ii) Metastasis more than 10 mm in greatest dimension  
IIIA2: Microscopic extrapelvic (above the pelvic brim) peritoneal involvement with or without positive retroperitoneal lymph nodes  
IIIB: Macroscopic peritoneal metastasis beyond the pelvis up to 2 cm in greatest dimension, with or without metastasis to the retroperitoneal lymph nodes  
IIIC: Macroscopic peritoneal metastasis beyond the pelvis more than 2 cm in greatest dimension, with or without metastasis to the retroperitoneal lymph nodes (includes extension of tumor to capsule of live and spleen without parenchymal involvement of either organ) |
| IV    | Distant metastasis excluding peritoneal metastases  
IVA: Pleural effusion with positive cytology  
IVB: Parenchymal metastases and metastases to extra-abdominal organs (including inguinal lymph nodes and lymph nodes outside of the abdominal cavity) |
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## APPENDIX B: Chemotherapy Regimens

### Adjuvant Therapy

- Paclitaxel 135 mg/m² IV over 3 hours on Day 1 with cisplatin 75-100 mg/m² IP on Day 2 and paclitaxel 60 mg/m² IP on Day 8 every 3 weeks for 6 cycles
- Paclitaxel 175 mg/m² IV over 3 hours with carboplatin AUC 5-6 IV over 1 hour every 3 weeks for 6 cycles
- Docetaxel 75 mg/m² IV over 1 hour with carboplatin AUC 5 IV over 1 hour every 3 weeks for 6 cycles
- Paclitaxel 80 mg/m² IV over 1 hour on Days 1, 8 and 15 with carboplatin AUC 5-6 IV over 1 hour on Day 1 every 3 weeks for 6 cycles
- Paclitaxel 175 mg/m² IV over 3 hours with carboplatin AUC 5-6 IV over 1 hour every 3 weeks for 6 cycles. Starting Day 1 of cycle 2 give bevacizumab 15 mg/kg IV over 30 minutes every 3 weeks
- Option for patients with mucinous ovarian cancer:
  - Oxaliplatin 130 mg/m² IV over 2 hours on Day 1 and capcitabine 850 mg/m² PO twice daily on Days 1 through 14 followed by 7 day rest period every 3 weeks

### Neoadjuvant Therapy

- Paclitaxel 175 mg/m² IV over 3 hours with carboplatin AUC 5-6 IV over 1 hour every 3 weeks for 3 to 6 cycles
- Docetaxel 75 mg/m² IV over 1 hour with carboplatin AUC 5 IV over 1 hour every 3 weeks for 3 to 6 cycles
- Paclitaxel 80 mg/m² IV over 1 hour on Days 1, 8 and 15 with carboplatin AUC 5-6 IV over 1 hour on Day 1 every 3 weeks for 3 to 6 cycles
- Paclitaxel 175 mg/m² IV over 3 hours with carboplatin AUC 5-6 IV over 1 hour and bevacizumab 15 mg/kg IV over 30 minutes every 3 weeks for 3 to 6 cycles. Bevacizumab should not be given in the cycle prior to surgery.

### Maintenance Therapy

- Bevacizumab 15 mg/kg IV over 30 minutes every 3 weeks for at least 1 year or until progression
- Approved PARP inhibitor therapy until progression (BRCA positive or HRD positive)
- Aromatase inhibitors (low grade serous ovarian cancer)

### Recurrence Therapy

- Paclitaxel and carboplatin
- Carboplatin and weekly paclitaxel
- Carboplatin and docetaxel
- Carboplatin and gemcitabine
- Carboplatin and gemcitabine
- Carboplatin and liposomal doxorubicin
- Carboplatin single agent
- Bi-weekly cisplatin and gemcitabine
- Approved PARP inhibitor therapy (BRCA positive)

### Platinum Resistant

- All systemic chemotherapy agents can be given alone or with bevacizumab
- Paclitaxel
- Carboplatin and weekly paclitaxel
- Carboplatin and gemcitabine
- Carboplatin and gemcitabine
- Carboplatin and liposomal doxorubicin
- Carboplatin single agent
- Bi-weekly cisplatin and gemcitabine
- Approved PARP inhibitor therapy (BRCA positive or HRD positive)

### Platinum Sensitive

- Docetaxel
- Oral etoposide
- Gemcitabine
- Liposomal doxorubicin
- Weekly paclitaxel
- Bi-weekly cisplatin and gemcitabine
- Approved PARP inhibitor therapy (BRCA positive or HRD positive)

- Oral cyclophosphamide
- Bevacizumab single agent
- Topotecan
- Vinorelbine
- Hormonal therapy

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1 Excludes PARP inhibitors

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SUGGESTED READINGS
SUGGESTED READINGS - continued


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