**Endometrial Cancer**

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

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**INITIAL EVALUATION**

- History and physical
- Chest x-ray
- Pathology review
- Nutrition consult
- Labs
- Consider CA125 and pre-operative imaging of abdomen and pelvis
- Screen for Lynch Syndrome by family history or molecular testing
- Lifestyle risk assessment

Does the patient desire fertility?

- Yes
  - Dilation and curettage to confirm low-grade disease if initial diagnosis was from endometrial biopsy
  - Pelvic MRI to rule out myometrial invasion

- No
  - Hysterectomy

**CLINICAL PRESENTATION**

- Disease confined to uterus
- Pelvic MRI to rule out myometrial invasion

Does the patient have low-grade disease and no myometrial invasion?

- Yes
  - Hysterectomy

- No
  - Consider CA125 and pre-operative imaging of abdomen and pelvis

**PRIMARY TREATMENT**

- Progesterone therapy (oral or progestin-containing IUD)
- Re-sample at every 3-6 month interval

Grade 1-2, less than or equal to 50% invasion and tumor diameter less than or equal to 2 cm

- Yes
  - Conclude procedure with/without lymph node dissection

- No
  - Side specific staging with pelvic and para-aortic node sampling (omentumal biopsy for non-endometrioid cell type)

Grade 1-2, greater than 50% invasion or

- Tumor diameter greater than 2 cm with any invasion
- Grade 3 and non-endometrioid cell type (papillary serous, clear cell, carcinosarcoma)

- Yes
  - Hysterectomy

- No
  - Conclude procedure with/without lymph node dissection

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1 See MD Anderson Approved Biomarkers (Click here)
2 See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice
3 Hysterectomy may be performed through open or minimally invasive techniques based on surgeon/patient discretion

**SLN = sentinel lymph nodes**

**BSO = bilateral salpingo-oophorectomy**

Please refer to American College of Obstetricians and Gynecologists (ACOG) Guidelines for referral

Department of Clinical Effectiveness V10

Approved by the Executive Committee of the Medical Staff on 06/26/2018
**Endometrial Cancer**

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**CLINICAL PRESENTATION**

- Stage II with gross cervical involvement
- Disease not confined to uterus

**PRIMARY TREATMENT**

- 45 Gy pelvic radiation therapy plus reduced dose of brachytherapy
- Hysterectomy¹ and BSO with para-aortic node sampling (omentalis biopsy for non-endometroid cell type)
- Radical hysterectomy¹, BSO, pelvic and para-aortic node sampling and/or sentinel lymph node mapping (omentalis biopsy for non-endometroid cell type)
- Consider surgical debulking

See Pages 3-4 for Endometroid Cell Type and Page 5 for Serous Cell Type

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¹ Hysterectomy may be performed through open or minimally invasive techniques based on surgeon/patient discretion

BSO = bilateral salpingo-oophorectomy

Please refer to American College of Obstetricians and Gynecologists (ACOG) Guidelines for referral
Endometrial Cancer (Endometroid Cell Type)

STAGE 1

Stage 1A (less than 50% myometrial invasion)

Adverse risk-factors² present?

Yes

No

Stage 1B (greater than or equal to 50% myometrial invasion)

Adverse risk-factors² present?

Yes

No

ADJUVANT THERAPY

Grade 1
- Observe or vaginal brachytherapy

Grade 2
- Observe or vaginal brachytherapy³ and/or pelvic radiation therapy

Grade 3
- Vaginal brachytherapy³ and/or pelvic radiation therapy

Grade 1/Grade 2
- Observe

Grade 3
- Observe or vaginal brachytherapy

Grade 1/Grade 2
- Vaginal brachytherapy³ and/or pelvic radiation therapy

Grade 3
- Pelvic radiation therapy with or without chemotherapy³ or vaginal brachytherapy with or without chemotherapy

Grade 1
- Observe or vaginal brachytherapy³

Grade 2
- Vaginal brachytherapy

Grade 3
- Vaginal brachytherapy and/or pelvic radiation therapy³

Grade 1
- Vaginal brachytherapy and/or pelvic radiation therapy

Grade 2
- Pelvic radiation therapy with vaginal brachytherapy

Grade 3
- Pelvic radiation therapy with vaginal brachytherapy with or without chemotherapy

¹ See Appendix A for FIGO Staging
² Potential adverse risk factors include the following: age, positive lymphovascular invasion, tumor size, and lower uterine (cervical/glandular) involvement

³ Preferred

⁴ Depends on depth of invasion in uterus and cervical stroma plus other risk factors

⁵ This does not influence the choice of adjuvant treatment

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STAGE I

Stage IIIA with serosal involvement
- 45 Gy pelvic radiation therapy and vaginal brachytherapy with or without concurrent chemotherapy and/or adjuvant chemotherapy 2

Stage IIIA with adnexal involvement
- Adjuvant chemotherapy 2, consider vaginal brachytherapy, or external beam radiation therapy

Stage IIIB, Stage IIIC1
- 45 Gy pelvic radiation therapy and vaginal brachytherapy with or without concurrent chemotherapy, followed by adjuvant chemotherapy 2
- Higher dose than 45 Gy needs to be given for sites of ECE and for any other residual suspicious nodes seen on post-op CT

Stage IIIC2
- Extended-field radiation therapy and vaginal brachytherapy with or without concurrent chemotherapy, followed by adjuvant chemotherapy 2

Stage IV
- Chemotherapy 2

ADJUVANT THERAPY

See Surveillance on Page 6

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ECE = extra-capsular (nodal) extension
1 See Appendix A for FIGO Staging
2 See Appendix B for Systemic Therapy

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STAGE 1

Stage IA (no invasion or superficial invasion)
- Vaginal brachytherapy\(^2\) followed by adjuvant chemotherapy.\(^3\) Consider surveillance alone if no residual cancer in hysterectomy specimen.

Stage IB
- Vaginal brachytherapy\(^2\) or pelvic radiation therapy\(^4\) with or without concurrent chemotherapy followed by adjuvant chemotherapy\(^3\).

Stage II
- Pelvic radiation therapy\(^2,4\) or vaginal brachytherapy with or without concurrent chemotherapy followed by adjuvant chemotherapy\(^3\).

Stage IIIA
- Vaginal brachytherapy\(^2\) or pelvic radiation therapy with or without concurrent chemotherapy followed by adjuvant chemotherapy\(^3\).

Stage IIIB
- Pelvic radiation therapy\(^2,4\) or vaginal brachytherapy with or without concurrent chemotherapy followed by adjuvant chemotherapy\(^3\).

Stage IIC
- Disease present in ovaries?
  - Yes: Chemotherapy\(^3\)
  - No: Pelvic radiation therapy\(^2,4\) or vaginal brachytherapy with or without concurrent chemotherapy followed by adjuvant chemotherapy\(^3\)

Stage VI
- Chemotherapy\(^3\)

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1 See Appendix A for FIGO Staging
2 Preferred
3 See Appendix B for Systemic Therapy
4 Consider concurrent paclitaxel for disease confined to the pelvis

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Surveillance

After completion of treatment

- Visits every 3-6 months for Years 1 and 2, then every 6 months for Years 3 to 5
- Physical and pelvic exam every visit
- CA125 (if initially elevated) every visit
- Imaging as clinically indicated

Systemic recurrence?

Chemotherapy

Yes

No – isolated recurrence

Consider radiation therapy and/or resection with or without chemotherapy

1 See Appendix B for Systemic Therapy

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**Endometrial Cancer**

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**APPENDIX A: International Federation of Gynecology and Obstetrics (FIGO) Staging**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
</table>
| I\(^1\) | Tumor confined to the corpus uteri  
IA: No or less than half myometrial invasion  
IB: Invasion equal to or more than half of the myometrium |
| II\(^1\) | Tumor invades cervical stroma, but does not extend beyond the uterus\(^2\) |
| III\(^1\) | Local and/or regional spread of the tumor  
IIIA: Tumor invades the serosa of the corpus uteri and/or adnexae\(^3\)  
IIIB: Vaginal and/or parametrial involvement\(^3\)  
IIIC: Metastases to pelvic and/or para-aortic lymph nodes\(^3\)  
IIIC1: Positive pelvic nodes  
IIIC2: Positive para-aortic lymph nodes with or without positive pelvic lymph nodes |
| IV\(^1\) | Tumor invades bladder and/or bowel mucosa, and/or distant metastases  
IVA: Tumor invasion of bladder and/or bowel mucosa  
IVB: Distant metastases, including intra-abdominal metastases and/or inguinal lymph nodes |

\(^1\) Either G1, G2, or G3  
\(^2\) Endocervical glandular involvement only should be considered as Stage I and no longer as Stage II  
\(^3\) Positive cytology has to be reported separately without changing the stage

**APPENDIX B: Systemic Therapy**

<table>
<thead>
<tr>
<th>Multi-agent Chemotherapy</th>
<th>Single Agents</th>
</tr>
</thead>
</table>
| Paclitaxel and carboplatin | Cisplatin  
Carboplatin  
Doxorubicin  
Liposomal doxorubicin  
Paclitaxel  
Hormonal agents |
| Docetaxel and carboplatin | Topotecan  
Bevacizumab  
Temsirilimus  
Docetaxel  
Ifofamide (carcinosarcoma)  
Pembrolizumab (for MSI-H and MMR-D tumors) |
| Ifosfamide and paclitaxel ( carcinosarcoma)  
Cisplatin and ifosfamide ( carcinosarcoma)  
Cisplatin and gemcitabine  
Everolimus and letrozole | |
SUGGESTED READINGS


This practice consensus algorithm is based on majority expert opinion of the Endometrial cancer faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following medical, radiation and surgical oncologists.

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