

Ovarian

Non-Metastatic, Newly Diagnosed or Recurrent Disease (somatic)

NCCN Ovarian Cancer V3.2026
NCCN Uterine Neoplasms V2.2026

When and what should be tested?

- Treatment eligible
- All patients with non-metastatic disease
- Performance status of ECOG 0-2
- At initial diagnosis or upon progression
- Patients with hereditary risk syndromes
- Tissue sample preferred
- Consider liquid biopsy if lack of tissue

FDA/NCCN approved

- Germline mutation testing
 - BRCA 1/2
 - In absence of BRCA1/2 mutation, HRD status may provide information on magnitude of benefit of PARPi therapy
- Somatic mutation testing along with limited NGS panel for MSI, TMB, dMMR, BRAF, NTRK, BRCA 1/2 in tissue, other homologous recombination repair genes**, LOH score
 - Consider comprehensive germline mutation panel
- Hereditary Ovarian Syndrome
 - Germline mutation testing
 - BRCA 1/2 negative – reflex to comprehensive NGS panel

Emerging

- Comprehensive NGS panel
- MRD

Regular monitoring including, but not limited to CEA, AFP, CA-125, LDH and CA19-9 is required as standard of care.

**CHEK2, BARD1, BRIP1, PALB2, RAD50, RAD51C, ATM, ATR, EMSY, Fanconi anemia genes, MMR genes,.

Ovarian

Advanced Disease or Progressed on Treatment (somatic)

When and what should be tested?

- Treatment eligible
- Stage IV, PS of ECOG 0-2
- Advanced disease or progression on treatment
- Patients with hereditary risk syndromes
- Tissue sample preferred
- Consider liquid biopsy if lack of tissue

→ FDA/NCCN approved

- BRCA 1/2 (to guide treatment selection)
- MSI-H/dMMR
- TMB
- NTRK 1/2/3
- ER
- HER2
- HRRm analysis/Loss of heterozygosity
- FR-alpha
- RET gene arrangement
- BRAF V600E
- HRD
- Hereditary Ovarian Syndrome
 - Germline mutation testing
 - BRCA 1/2 negative – reflex to comprehensive NGS panel
- Recurrent Disease
 - Somatic mutation testing along with limited NGS panel for MSI, TMB, dMMR, NTRK*, HRD, BRCA 1/2 in tissue, other homologous recombination repair genes**, LOH score, KRAS
 - Consider comprehensive germline mutation panel

→ Emerging

- Comprehensive NGS panel
- RAF, MEK, NaPi2b

→ Informational Considerations

- Cu isotope (serum), exosomes (ascites), lncRNA and mRNA, ALDH1, GSTP

Regular monitoring including, but not limited to CEA, AFP, CA-125, LDH and CA19-9 is required as standard of care.

**CHEK2, BARD1, BRIP1, PALB2, RAD50, RAD51C, ATM, ATR, EMSY, Fanconi anemia genes, MMR genes,.

Uterine Cancer

Newly diagnosed disease

When and what should be tested?

- At diagnosis
- Tissue sample preferred
- Consider liquid biopsy if there is a lack of tissue

Who should be tested?

- All treatment eligible patients



Uterine Cancer

Metastatic or Recurrent disease

When and what should be tested?

- At time of metastasis or disease recurrence
- Tissue sample preferred
- Consider liquid biopsy if there is a lack of tissue

Who should be tested?

- All treatment eligible patients

FDA/NCCN Approved

- ER/PR
- NTRK
- MSI/MMR
- TMB
- RET
- ALK
- BRCA
- HER2

Emerging

Endometrial Cancer

Newly diagnosed disease

When and what should be tested?

- At diagnosis
- Tissue sample preferred
- Consider liquid biopsy if there is a lack of tissue

Who should be tested?

- All treatment eligible patients

FDA/NCCN Approved

- ER/PR for stage III/IV
- HER2 for all p53 aberrant carcinomas regardless of histology
- POLE
- MMR
- MSI
- p53 by IHC

Emerging

Endometrial Cancer

Metastatic or Recurrent disease

When and what should be tested?

- At time of disease recurrence
- Tissue sample preferred
- Consider liquid biopsy if there is a lack of tissue

Who should be tested?

- All treatment eligible patients

FDA/NCCN Approved

- ER/PR
- HER2 for all p53 aberrant carcinomas regardless of histology
- POLE
- MMR
- MSI
- TMB
- NTRK
- p53 by IHC
- RET

Emerging