Uterine Sarcoma Treatment Regimens

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 National Comprehensive Cancer Network 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 NCCN 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.

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

▶Systemic Therapy for Uterine Sarcoma[1]

REGIMEN	DOSING
Adjuvant Chemotherapy for High-Risk Disease or Primary Therapy for Initially Unresectable Disease[a]	
Preferred Regimens	
Docetaxel + Gemcitabine[2,3]	**Days 1,8:** Gemcitabine 900mg/m^2 IV at a rate of 10mg/m^2/minute, **followed by**: **Day 8:** Docetaxel 75-100mg/m^2 IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles. **OR** **Days 1,8:** Gemcitabine 675mg/m^2 (if prior pelvic radiation) IV at a rate of 10mg/m^2/minute, **followed by**: **Day 8:** Docetaxel 75mg/m^2 IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Doxorubicin[4]	**Day 1:** Doxorubicin 60-75mg/m^2 IV push. Repeat cycle every 3 weeks for 4-6 cycles.
Other Recommended Regimens	
Dacarbazine[5,6]	**Days 1-5:** Dacarbazine 250mg/m^2 IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. **OR** **Days 1-5:** Dacarbazine 187mg/m^2 (if prior pelvic radiation) IV over 30 minutes. Repeat cycle every 3 weeks for 4-6 cycles. **OR** **Day 1:** Dacarbazine 1,000mg/m^2 IV over 60 minutes. Repeat cycle every 3 weeks for 4-6 cycles.
Doxorubicin + Decarbazine[7,8]	**Days 1-4:** Doxorubicin 15mg/m^2 IV continuous infusion over 24 hours daily **Days 1-4:** Dacarbazine 187.5-250mg/m^2 IV continuous infusion over 24 hours daily. Repeat cycle every 3 weeks for 4-6 cycles.
Doxorubicin + Ifosfamide[9,10,b]	**Days 1-3:** Doxorubicin 25mg/m^2 IV push **Days 1-3:** Ifosfamide 3,000mg/m^2 IV continuous infusion over 24 hours daily **Days 1-3:** Mesna 3,000mg/m^2 IV continuous infusion over 24 hours concurrently with Ifosfamide (additional Mesna may be administered following the completion of Ifosfamide per institutional standard). Repeat cycle every 3 weeks for 4-6 cycles.
Epirubicin[11]	**Day 1:** Epirubicin 75mg/m^2 IV push. Repeat cycle every 3 weeks for 4-6 cycles.
Gemcitabine[12]	**Days 1,8,15:** Gemcitabine 1,000mg/m^2 IV over 30 minutes. Repeat cycle every 4 weeks for 4-6 cycles.
Gemcitabine + Dacarbazine[13]	**Day 1:** Gemcitabine 1,800mg/m^2 IV at a rate of 10mg/m^2/minute **Day 1:** Dacarbazine 500mg/m^2 IV over 60 minutes. Repeat cycle every 2 weeks for 4-6 cycles.
Gemcitabine + Vinorelbine[14]	**Days 1,8:** Vinorelbine 25mg/m^2 IV over 5-10 minutes **Days 1,8:** Gemcitabine 800mg/m^2 IV at a rate of 10mg/m^2/minute. Repeat cycle every 3 weeks for 4-6 cycles.

continued

Uterine Sarcoma Treatment Regimens

▶Systemic Therapy for Uterine Sarcoma[1] (continued)

REGIMEN	DOSING
Adjuvant Chemotherapy for High-Risk Disease or Primary Therapy for Initially Unresectable Disease (continued)	
Other Recommended Regimens (continued)	
Ifosfamide[15,16,b]	**Days 1-5:** Ifosfamide 1,500mg/m² IV over 3 hours **Days 1-5:** Mesna 300mg/m² IV over 15 minutes before Ifosfamide, then at 4 and 8 hours from the start of each Ifosfamide dose. Repeat cycle every 3 weeks for 4-6 cycles. **OR** **Days 1-3:** Ifosfamide 3,000mg/m² IV continuous infusion over 24 hours daily **Days 1-3:** Mesna 3,000mg/m² IV continuous infusion over 24 hours concurrently with Ifosfamide (addition Mesna may be administered following the completion of Ifosfamide per institutional standard). Repeat cycle every 3 weeks for 4-6 cycles.
Liposomal Doxorubicin[17,18]	**Day 1:** Liposomal Doxorubicin 50mg/m² IV. Repeat cycle every 4 weeks for 4-6 cycles.
Systemic Therapy for Recurrent or Metastatic Disease[a]	
Preferred Regimens	
Chemotherapy	
Docetaxel + Gemcitabine[2,3]	**Days 1,8:** Gemcitabine 900mg/m² IV at a rate of 10mg/m²/minute, **followed by:** **Day 8:** Docetaxel 75-100mg/m² IV over 60 minutes. Repeat cycle every 3 weeks. **OR** **Days 1,8:** Gemcitabine 675mg/m² (if prior pelvic radiation) IV at a rate of 10mg/m²/minute, **followed by:** **Day 8:** Docetaxel 75mg/m² IV over 60 minutes. Repeat cycle every 3 weeks.
Doxorubicin[4]	**Day 1:** Doxorubicin 60-75mg/m² IV push. Repeat cycle every 3 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Other Recommended Regimens	
Chemotherapy	
Dacarbazine[5,6]	**Days 1-5:** Dacarbazine 250mg/m² IV over 30 minutes. Repeat cycle every 3 weeks. **OR** **Days 1-5:** Dacarbazine 187mg/m² (if prior pelvic radiation) IV over 30 minutes. Repeat cycle every 3 weeks. **OR** **Day 1:** Dacarbazine 1,000mg/m² IV over 60 minutes. Repeat cycle every 3 weeks.
Doxorubicin + Decarbazine[7,8]	**Days 1-4:** Doxorubicin 15mg/m² IV continuous infusion over 24 hours daily **Days 1-4:** Dacarbazine 187.5-250mg/m² IV continuous infusion over 24 hours daily. Repeat cycle every 3 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Doxorubicin + Ifosfamide[9,10,b]	**Days 1-3:** Doxorubicin 25mg/m² IV push **Days 1-3:** Ifosfamide 3,000mg/m² IV continuous infusion over 24 hours daily **Days 1-3:** Mesna 3,000mg/m² IV continuous infusion over 24 hours concurrently with Ifosfamide (additional Mesna may be administered following the completion of Ifosfamide per institutional standard). Repeat cycle every 3 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Epirubicin[11]	**Day 1:** Epirubicin 75mg/m² IV push. Repeat cycle every 3 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Gemcitabine[12]	**Days 1,8,15:** Gemcitabine 1,000mg/m² IV over 30 minutes. Repeat cycle every 4 weeks.

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Uterine Sarcoma Treatment Regimens

Systemic Therapy for Uterine Sarcoma[1] (continued)

REGIMEN	DOSING
Systemic Therapy for Recurrent or Metastatic Disease (continued)	
Other Recommended Regimens (continued)	
Chemotherapy (continued)	
Gemcitabine + Dacarbazine[13]	**Day 1:** Gemcitabine 1,800mg/m^2 IV at a rate of 10mg/m^2/minute **Day 1:** Dacarbazine 500mg/m^2 IV over 60 minutes. Repeat cycle every 2 weeks.
Gemcitabine + Vinorelbine[14]	**Days 1,8:** Vinorelbine 25mg/m^2 IV over 5-10 minutes **Days 1,8:** Gemcitabine 800mg/m^2 IV at a rate of 10mg/m^2/minute. Repeat cycle every 3 weeks.
Ifosfamide[15,16,b]	**Days 1-5:** Ifosfamide 1,500mg/m^2 IV over 3 hours **Days 1-5:** Mesna 300mg/m^2 IV over 15 minutes before Ifosfamide, then at 4 and 8 hours from the start of each Ifosfamide dose. Repeat cycle every 3 weeks. **OR** **Days 1-3:** Ifosfamide 3,000mg/m^2 IV continuous infusion over 24 hours daily **Days 1-3:** Mesna 3,000mg/m^2 IV continuous infusion over 24 hours concurrently with Ifosfamide (addition Mesna may be administered following the completion of Ifosfamide per institutional standard). Repeat cycle every 3 weeks.
Liposomal Doxorubicin[17,18]	**Day 1:** Liposomal Doxorubicin 50mg/m^2 IV. Repeat cycle every 4 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Trabectedin (for patients with uterine leiomyosarcoma treated with a prior anthracycline-containing regimen)[6]	**Day 1:** Trabectedin 1.5mg/m^2 IV continuous infusion over 24 hours. Repeat cycle every 3 weeks.
Subsequent Systemic Therapy for Recurrent or Metastatic Disease[a,c]	
Chemotherapy	
Eribulin (Category 2B)[19,20]	**Days 1,8:** Eribulin 1.4mg/m^2 IV push. Repeat cycle every 3 weeks.
Temozolomide[21,22]	**Days 1-5:** Temozolomide 150-300mg/m^2 orally. Repeat cycle every 4 weeks. **OR** **Days 1-42:** Temozolomide 75-100mg/m^2 orally. Repeat cycle every 56 days.
Targeted Therapy	
Pazopanib[23,24]	**Days 1-28:** Pazopanib 800mg orally. Repeat cycle every 4 weeks.
Hormone Therapy for Low-Grade Endometrial Stromal Sarcoma or Hormone Receptor-Positive (ER and/or PR) Uterine Leiomyosarcoma	
Preferred Regimens for Low-Grade Endometrial Stromal Sarcoma[d]	
Anastrozole[25]	See NCCN Uterine Neoplasms Guidelines[1]
Exemestane[26]	
Letrozle[27]	
Other Recommended Regimens for Low-Grade Endometrial Stromal Sarcoma[d]	
Fulvestrant[28]	See NCCN Uterine Neoplasms Guidelines[1]
GnRH Analogs (Category 2B)	
Megestrol Acetate	
Medroxyprogesterone Acetate	

continued

Uterine Sarcoma Treatment Regimens

▶Systemic Therapy for Uterine Sarcoma[1] (continued)

REGIMEN	DOSING
Hormone Therapy for Low-Grade Endometrial Stromal Sarcoma or Hormone Receptor-Positive (ER and/or PR) Uterine Leiomyosarcoma (continued)	
Other Recommended Regimens for ER and/or PR-Positive Uterine Leiomyosarcoma[e]	
Anastrozole[25]	See NCCN Uterine Neoplasms Guidelines[e]
Exemestane[26]	
Fulvestrant[28]	
GnRH Analogs (Category 2B)	
Letrozle[27]	
Megestrol Acetate (Category 2B)	
Medroxyprogesterone Acetate (Category 2B)	

a. See section on hormone therapy for patients with low-grade endometrial stromal sarcoma or hormone receptor-positive uterine leiomyosarcoma.
b. Hydration is required pre- and postadministration of Ifosfamide.
c. Pazopanib, temzolomide, and eribulin may be considered for use in patients with recurrent or metastatic disease who have progressed on prior cytotoxic chemotherapy.
d. For low-grade endometrial stromal sarcoma, the first choice of systemic therapy is estrogen blockade.
e. These hormonal therapies may be considered for patients with uterine leiomyosarcoma that is ER/PR-positive, preferably with small tumor volume or an indolent growth pace.

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