



Evaluation & Management of Patients with Melanoma and Advanced Cutaneous Malignancies

Description of the Activity	Surgical oncologists are expected to evaluate and manage patients who present with signs and symptoms of cutaneous malignancies. Surgical oncologists must be able to accurately and cost-effectively diagnose, treat, and provide surveillance for melanoma, squamous cell carcinoma, basal cell carcinoma, Merkel cell carcinoma, and cutaneous adnexal tumors, recognizing complex disease that requires multidisciplinary treatment.
Functions	<ul style="list-style-type: none">❖ Nonoperative/Preoperative<ul style="list-style-type: none">➤ Synthesize essential information from a patient’s records, history, physical examination, and initial diagnostic evaluations (eg, biopsy) to develop a differential diagnosis, including benign, borderline, and malignant cutaneous lesions.➤ Describe different biopsy techniques and the indications for and limitations of each.➤ Complete cost-effective, evidence-based diagnostic and staging evaluations based on histopathology, including tissue diagnosis and imaging studies as indicated and the use of available molecular testing as applicable.➤ Determine the need to refer a patient to genetic counseling after screening regarding hereditary syndromes that predispose patients to cutaneous malignancy.➤ Communicate a diagnosis and potential treatment options to the patient/caregiver(s) and consultants. Use shared decision-making to develop a treatment plan consistent with a patient’s goals and beliefs.➤ Identify treatment goals, such as curative intent, life prolongation without curative option, palliation, or end-of-life care. Communicate in a culturally sensitive manner when de-escalation of care is warranted because of poor prognosis or based on the patient/caregiver’s goals of care.➤ Use evidence-based literature in a multidisciplinary fashion to plan the sequencing of oncologic treatment, including surgery; neoadjuvant or adjuvant immunotherapy or targeted therapy; radiation; and other treatments (topical therapies, Mohs surgery), depending on histology.➤ Collaborate with other specialties to manage comorbidities that will affect treatment, such as chronic anticoagulation, cardiac disease, immunosuppression, and immunotherapy-induced toxicity (eg, endocrine insufficiencies, hepatitis, myocarditis, colitis, pneumonitis). For planned lymphadenectomy, refer patients to physical therapy for lymphedema education.➤ Adapt management to specific patient populations, including pregnant and immunocompromised patients and patients with comorbidities that may limit treatment options.➤ Anticipate the potential need for delayed closure and reconstruction, and consult the plastic surgery team preoperatively when indicated.➤ Describe and document the indications, risks, benefits, alternative therapies, and potential complications of the planned procedure, and incorporate a discussion of the goals of care and end-of-life decision-making in a culturally sensitive manner, ensuring a full understanding and taking patient/caregiver preferences into account.❖ Develop a multidisciplinary treatment plan for patients with locoregionally advanced (satellite, in-transit, nodal), recurrent, or metastatic disease. Debate the role of modalities, including intralesional therapy, surgery, cell-mediated therapies, and surgical resection.❖ Identify patients who qualify for clinical trials.❖ Intraoperative



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- Manage the perioperative environment, including room setup, medications (eg, blue dye), equipment check, preprocedural time-out, specimen orientation and processing, counts, wound classification, and debriefing functions.
 - Implement a safe anesthetic approach for the clinical situation in collaboration with in-office staff or the anesthesiology team, depending on the environment selected for the performance of the procedure. In particular, communicate with the anesthesia team to avoid long-acting muscle relaxation for lymphadenectomy.
 - Create and maintain an intraoperative environment that promotes safety and patient-centered care.
 - Position the patient to expose the operative field, including applicable nodal basins based upon interpretation of lymphoscintigraphy, and avoid iatrogenic injuries.
 - Coordinate with other members of the operating room team to use specialized equipment or procedures, such as the gamma probe and dye for injection (eg, isosulfan blue, methylene blue).
 - Perform the procedures required to manage cutaneous malignancies:
 - Select margins and orient incisions.
 - Manage the resection defect.
 - Perform sentinel lymph node biopsy with or without lymphoscintigraphy preoperatively, and interpret imaging results.
 - Perform lymphadenectomy when appropriate.
 - Perform metastasectomy when appropriate.
 - Adapt the operative plan to new information, involving consulting services as necessary.
 - Anticipate common postoperative complications, and mitigate them if possible (eg, drain placement).
- ❖ Postoperative
- Manage common early and late complications, including wound infection, dehiscence, seromas, hematomas, paresthesia/nerve injury, and lymphedema.
 - Review intraoperative and pathologic findings in a multidisciplinary tumor board to develop an adjuvant treatment plan, including additional resection if indicated. Recognize when additional imaging is required based on pathologic stage, and refer patients to the radiation and medical oncology teams per consensus guidelines.
 - Communicate a postoperative plan to the patient/caregiver(s) and other health care team members that considers pathologic findings, outcome expectations, and short- and long-term follow-up, including indications for adjuvant therapy per guidelines.
 - Debate completion lymphadenectomy using evidence-based literature.
 - Identify the role of adjuvant therapy following neoadjuvant therapy and curative-intent oncologic surgery.
 - Describe and mitigate patient-specific barriers to care, specifically with respect to long-term surveillance.
 - Coordinate care with other specialties per guidelines, such as medical oncology, radiation oncology, dermatology, and plastic surgery, and with ancillary care teams, such as physical therapy, lymphedema therapy, wound care, rehabilitation, and nutrition services.
 - Discuss lifestyle modification and risk reduction with the patient/caregiver(s), such as sun-protective strategies and skin surveillance.



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Scope

- ❖ In scope
 - Diagnoses
 - Cutaneous adnexal tumors
 - Hereditary syndromes with increased melanoma risk
 - High-risk basal cell carcinoma
 - High-risk squamous cell carcinoma
 - Melanoma: invasive and noninvasive
 - Merkel cell carcinoma
 - Unknown, suspicious cutaneous lesions
 - Procedures
 - Amputation
 - Excisional biopsy
 - Incisional biopsy
 - Intratumoral injections of therapeutic agents
 - Metastasectomy
 - Punch biopsy
 - Sentinel lymph node biopsy, including injection of blue dye, use of a gamma probe, and interpretation of preoperative lymphoscintigraphy
 - Therapeutic or completion lymphadenectomy
 - Wide local excision
 - Wound closure: skin graft, synthetic skin graft products, rotational flaps, complex wound closures
 - Populations
 - Immunocompromised patients
 - Patients with autoimmune disorders
 - Pregnant patients
- ❖ Out of scope
 - Diagnoses
 - Benign lesions
 - Congenital nevi
 - Cutaneous sarcomas
 - Dermatofibrosarcoma protuberans
 - Desmoid tumors
 - Mucosal melanoma (eg, anorectal)



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- Neurofibroma
- Ocular melanoma

- Procedures
 - Free flaps
 - Isolated hepatic infusion
 - Isolated limb infusion
 - Isolated limb perfusion

- Populations
 - Pediatric patients



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<p style="text-align: center;">1</p> <p><u>Limited Participation</u></p> <p>Demonstrates understanding of information and has very basic skills.</p> <p>Framework: Performs at the general surgery resident level, lower than expected for a typical residency graduate. Has some experience with simple cases but has been an observer of complex cases.</p>	<ul style="list-style-type: none"> • Synthesizes essential information from a patient’s records, H&P, family history, and initial diagnostic evaluations to develop a differential • Describes indications for biopsy and how to perform various biopsy techniques • Recognizes the need for and describes common staging studies • Explains surgical treatment but needs assistance with margin selection and indications for nodal staging • Describes the risks, benefits, and potential complications of surgery • Considers the role of a multidisciplinary tumor board and participates in but cannot lead a case discussion; needs guidance to develop a multidisciplinary treatment plan including indications for neoadjuvant therapy and which agents to use • Describes the basics of clinical study design and levels of evidence as they apply to the selection of a treatment plan • When prompted, accesses available evidence to develop the correct sequence of treatment (eg, surgery, systemic or regional therapies) 	<ul style="list-style-type: none"> • Describes but may need assistance with intradermal blue dye or isotope injection, lymphoscintigraphy interpretation, and gamma probe use • Performs the initial steps of the operation; requires guidance to select the correct depth/margins for wide resection and specimen orientation • Orients an incision along the correct anatomic axis and performs a simple primary or layered closure with assistance • Demonstrates basic understanding of relevant operative anatomy • Creates a basic operative note but omits some important information; may need prompting for timeliness 	<ul style="list-style-type: none"> • Develops a basic surveillance plan for a patient with early-stage disease • Demonstrates basic understanding of the role of adjuvant therapy but may need guidance to recognize indications for it • Reviews pathology results but needs assistance with staging and management decisions that incorporate recognition of low-risk vs high-risk disease • Describes the basics of clinical study design and levels of evidence as they apply to selecting a treatment plan • Accesses evidence-based guidelines for postop care and surveillance but needs assistance to formulate a plan based on tumor factors • Documents postop care but may omit nuances of progress or minor complications; may choose an inappropriate means of communication (paging for minor details or email for urgent issues)



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	<ul style="list-style-type: none"> Records information in a patient's record but may omit some important information or include some extraneous information; may need prompting for timeliness 		
<p style="text-align: center; font-weight: bold;">2</p> <p><u>Direct Supervision</u></p> <p>Manages cases at the level of a newly graduated general surgery resident. Manages less complicated cases independently but needs active guidance for complex cases.</p> <p><u>Framework:</u> The learner can manage simple or straightforward cases.</p> <p>The learner may require guidance in managing multidisciplinary care (eg, planning neoadjuvant treatment or postoperative chemotherapy).</p> <p>During surgery, the attending gives active</p>	<ul style="list-style-type: none"> Obtains a detailed history, including risk factors for cutaneous malignancy and the impact of any previous therapy, and performs a thorough physical exam, recognizing lymphadenopathy or other suspicious skin lesions Explains surgical treatment in straightforward cases, including margin status and indications for nodal staging Participates in a multidisciplinary tumor board discussion to develop a treatment plan but needs assistance to guide the discussion; demonstrates awareness of multidisciplinary treatment options but needs guidance to formulate multimodality treatment Recognizes indications for additional staging studies but needs prompting to identify cost-effective or evidence-based imaging Demonstrates an understanding of the different phases of oncologic clinical trials Accesses available evidence to develop the correct sequence of treatment (eg, surgery, systemic or regional therapies) but needs assistance to elicit patient preferences 	<ul style="list-style-type: none"> Positions the patient and performs intradermal injections, interprets lymphoscintigraphy, and uses a gamma probe to localize a sentinel lymph node with minimal assistance Determines margins and depth for wide local excision and independently performs the operation, including sentinel lymph node biopsies, with minimal assistance in straightforward cases Orients an incision along the correct anatomic axis and performs a simple primary or layered closure without assistance Needs assistance to determine the level of amputation for subungual melanoma Demonstrates understanding of operative anatomy, anticipating critical structures and landmarks to prevent postop complications Creates an operative note with a complete description of the procedure 	<ul style="list-style-type: none"> Develops a basic surveillance plan for a patient with early-stage disease but needs assistance to develop a plan for a patient with more advanced disease or a rarer cutaneous malignancy Requires prompting to describe the indications for and guideline-based elements of staging for more advanced disease Recognizes the indications for adjuvant therapy but requires prompting to consider the impact of prior treatment or tumor-related factors when recommending specific treatment options Recognizes high-risk disease and stages a patient in the context of pathologic findings but needs assistance to devise a treatment strategy for a straightforward case Demonstrates understanding of the different phases of oncologic clinical trials Requires prompting to elicit patient preferences and values to guide



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<p>help throughout the case to maintain forward progression.</p>	<p>when guiding care (eg, consideration for sentinel lymph node biopsy)</p> <ul style="list-style-type: none"> • Demonstrates organized diagnostic and therapeutic reasoning through notes in a patient's record; demonstrates timely and efficient use of the EHR to communicate with the health care team 		<p>evidence-based adjuvant care and surveillance</p> <ul style="list-style-type: none"> • Thoroughly documents a patient's postop progression and the presence of any complications within the plan of management
<p>3</p> <p><u>Indirect Supervision</u></p> <p>Can do a basic operation but will not recognize abnormalities and does not understand the nuances of an advanced case.</p> <p>Manages multidisciplinary care of straightforward cases. Seeks assistance in managing complex cases.</p> <p><u>Framework:</u> The learner can perform the operation in straightforward circumstances.</p> <p>The attending gives passive help. This help may be given while</p>	<ul style="list-style-type: none"> • Independently recognizes the need for and performs an additional biopsy when needed (eg, suspicious lesion, concern for sampling error) • Integrates oncologic information with patient-specific factors to develop a treatment plan, including indications for neoadjuvant therapy; requires guidance for a more complex presentation, such as recurrent, in-transit, or advanced disease • Discusses consent in a patient-centered manner, including oncologic outcomes and specific risks such as paresthesia, lymphedema, and scarring • Recognizes the need to involve other surgical specialties • Leads a discussion of routine cases at an interdisciplinary cancer care conference, incorporating multimodality treatment options in the formulation of a treatment plan; requires assistance to develop a plan for a complex case or when conflicting opinions exist 	<ul style="list-style-type: none"> • Consistently performs all steps of wide local excision and sentinel lymph node biopsy but may require assistance for a patient with challenging anatomy or atypical nodal localization • Demonstrates careful tissue handling of critical structures and landmarks (eg, neurovascular bundles) but requires some assistance with dissection • Orients an incision along the correct anatomic axis without prompting and performs a complex closure, including the creation of an advancement flap for a tension-free closure • Communicates clearly with staff regarding the labeling and handling of pathologic specimens • Creates an operative note with a complete description of the procedure, including key intraoperative findings; documents anatomic or disease variants in a thorough and understandable way 	<ul style="list-style-type: none"> • Communicates indications for additional staging and adjuvant therapy (eg, considers adjuvant therapy following neoadjuvant therapy and curative-intent oncologic surgery) or surgical intervention in a guideline-concordant manner • Recognizes and manages postop complications to minimize their impact on adjuvant therapy • Develops a surveillance plan for straightforward and complex cases that incorporates tumor stage and prior treatment • With assistance, recognizes high-risk disease, stages patients in the context of pathologic findings, and consistently develops a treatment strategy for straightforward cases • Demonstrates general knowledge of clinical trial design and clinical trial infrastructure; identifies a patient who



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<p>scrubbed for more complex cases or during check-in for more routine cases.</p>	<ul style="list-style-type: none"> Leads a multidisciplinary discussion, critically appraising literature and incorporating input from other services to develop a comprehensive treatment plan; integrates clinical trial data and adapts the plan based on therapeutic response With assistance, identifies gaps in a diagnostic workup and stages a patient in a guideline-concordant manner Demonstrates general knowledge of clinical trial design and clinical trial infrastructure; identifies a patient who qualifies for clinical trials and assists research coordinators in enrollment Independently integrates oncologic information with patient-specific factors to design a succinct diagnostic and workup plan in a straightforward case and adjusts the plan based on available evidence; requires guidance for a more complex presentation, such as recurrent, in-transit, or advanced disease Concisely integrates all relevant data from outside systems and prior encounters and reports diagnostic and therapeutic reasoning in the patient's record 		<p>qualifies for clinical trials and assists research coordinators in enrollment</p> <ul style="list-style-type: none"> Locates and applies the best available evidence for adjuvant therapies and surveillance, integrated with patient preferences Selects direct (telephone, in-person) and indirect (progress notes, secure text messages) forms of communication based on context and urgency
<p>4 <u>Practice Ready</u></p>	<ul style="list-style-type: none"> Obtains a thorough history, integrating comorbidities and histologic risk factors, including molecular markers and genetic profiling, to develop a succinct differential 	<ul style="list-style-type: none"> Communicates with staff regarding positioning and room setup; establishes a safe anesthetic plan and exposes the operative field to avoid iatrogenic injury 	<ul style="list-style-type: none"> Reviews pathology results, including mutational analysis, and tailors postop treatment and the surveillance plan accordingly



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<p>Manages complex disease presentations and performs complex operations independently. Guides a multidisciplinary approach to complex cases. Performs as an expert consultant in surgical oncology.</p> <p>Framework: The learner can treat all common variations of the disease and has a strong understanding of surgical and medical options for different presentations.</p> <p>The attending is available at the request of the learner but is not routinely needed for common presentations, though input may be needed for more complex or unusual presentations.</p>	<ul style="list-style-type: none"> Performs a thorough physical exam, recognizing satellitosis, in-transit disease, lymphadenopathy, or other suspicious skin lesions; detects subtle abnormalities and adapts the treatment plan when needed Describes indications for treatment of recurrent, in-transit, and advanced disease, including intratumoral therapies, nodal dissection, and metastasectomy Leads a multidisciplinary cancer care conference to synthesize patient care plans for routine and complex cases, resolving conflict when needed; independently coordinates multidisciplinary care; integrates clinical trial data and adapts a care plan based on therapeutic response Independently recognizes gaps in a diagnostic workup and stages a patient in a guideline-concordant manner Demonstrates advanced knowledge of clinical trial design and infrastructure; identifies potential clinical research questions and designs a clinical trial to address them, either real or hypothetical Independently integrates oncologic information with patient-specific factors to design a succinct diagnostic and workup plan and adjusts the plan based on available evidence in a complex or unusual 	<ul style="list-style-type: none"> Requests and troubleshoots equipment and modifies the operative plan based on instrument availability Navigates an uncommon intraop scenario, such as a nonlocalizing sentinel lymph node or management of a pregnant or immunosuppressed patient Coaches a surgical assistant or trainee through an excision and sentinel lymphadenectomy, considering patient positioning, ergonomics, exposure, tissue handling, and specimen orientation Leads dissection of neurovascular bundles and critical structures; navigates a procedure in a reoperative or irradiated field and following neoadjuvant therapy Creates an operative note with a complete description of the procedure, a rationale for modifications of the operative plan, and documentation of anatomic or disease variants 	<ul style="list-style-type: none"> Independently coordinates postop care, including adjuvant therapy, staging imaging, and nodal basin surveillance Independently recognizes high-risk disease, stages a patient in the context of pathologic findings, and consistently develops a treatment strategy for straightforward and complex cases Demonstrates advanced knowledge of clinical trial design and clinical trial infrastructure; identifies potential clinical research questions and designs a clinical trial to address them, either real or hypothetical Critically appraises evidence-based rationales for adjuvant therapies, even in the face of uncertain or conflicting evidence and or a patient with significant comorbidities (eg, immunosuppressed patient) Communicates clearly, concisely, promptly, and in an organized written form, including anticipatory guidance so the postop plan of care is clear to other members of the health care team



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	<p>presentation, including the palliative setting</p> <ul style="list-style-type: none">Communicates diagnostic and therapeutic reasoning clearly, concisely, promptly, and in an organized written form, including anticipatory guidance; written or verbal communication (eg, patient notes, email) serves as an example for others to follow		