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<p>Cutaneous squamous cell carcinoma (cSCC) is one of the most common cancers in the United States. Outcomes are generally favorable, but a subset of cSCC is biologically distinct and requires a different approach because of its higher risk of local recurrence, metastasis, and death. This article focuses on the recent literature regarding identification of this high-risk subset, efforts to validate and improve the prognostic ability of staging systems, and updates in management.</p>	
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<p>Atypical fibroxanthoma and undifferentiated pleomorphic sarcoma, or pleomorphic dermal sarcoma, are rare malignant cutaneous neoplasms existing along a clinicopathologic spectrum. Although these tumors share many similarities, recognition of distinguishing characteristics may predict differences in clinical behavior and outcomes. Salient features defining atypical fibroxanthoma include superficial tumors with minimal high-risk histologic features. Deeper tumors with high-risk histologic features are often clinically aggressive and should be appropriately designated as pleomorphic dermal sarcoma. Surgery remains gold standard in management; tumor extirpation with complete margin control is critical. In the high-risk tumor cohort, comprehensive evaluation and multidisciplinary management is paramount for optimal outcomes.</p>	
<b>Extramammary Paget Disease</b> Bradley G. Merritt, Catherine A. Degesys, and David G. Brodland	<b>261</b>
<p>Extramammary Paget disease is an intraepidermal adenocarcinoma, most often limited to the epidermis, with typical cases affecting genital skin. When limited to the epidermis, primary extramammary Paget disease is not life-threatening, but invasive disease may portend a poor prognosis. Surgical excision remains the mainstay of treatment of extramammary Paget disease, and Mohs micrographic surgery is the surgical treatment of choice. Alternative treatments include topical 5-fluorouracil and imiquimod, photodynamic therapy, laser vaporization, chemotherapy, and radiation therapy but data are limited. Implementation of cytokeratin 7 immunostain has increased the ability to detect extramammary Paget disease on frozen section.</p>	
<b>Merkel Cell Carcinoma: Updates on Staging and Management</b> Christine Cornejo and Christopher J. Miller	<b>269</b>
<p>Merkel cell carcinoma is an aggressive neuroendocrine carcinoma with increasing incidence over the past few decades. The TNM Staging System used for Merkel</p>	

cell carcinoma was updated by the American Joint Committee on Cancer in 2017. Clinical practice guidelines were updated by the National Comprehensive Cancer Network on August 31, 2018. This article reviews the most recent evidence-based updates on staging and management.

### **Management of Skin Cancer in the Elderly**

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Michael Renzi Jr, Josh Schimmel, Ashley Decker, and Naomi Lawrence

Over the next 30 years, dermatologists face a rising population of elderly patients, causing a marked increase in the incidence of cutaneous malignancies. For this reason, it is important to review the approach to the management of skin cancer in the elderly. In the current medical environment, there has been debate as to how cutaneous malignancy should be treated in elderly patients, especially those with multiple comorbid conditions. Clinicians should use a comprehensive approach that accounts for functional status, impact on quality of life, cost, and potential adverse outcomes when managing high- and low-morbidity skin cancers in the elderly.

### **Topical and Systemic Modalities for Chemoprevention of Nonmelanoma Skin Cancer**

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Kathleen M. Nemer and M. Laurin Council

Chemoprevention of nonmelanoma skin cancer should be considered in patients likely to develop numerous, invasive, or metastatic nonmelanoma skin cancers. This article reviews the various topical and systemic substances studied as chemopreventive agents.

### **Medications Associated with Increased Risk of Keratinocyte Carcinoma**

297

Lauren D. Crow, Katherine A. Kaizer-Salk, Hailey M. Juszczak, and Sarah T. Arron

A number of medications for short-term and long-term use have been linked to an increased risk for keratinocyte carcinoma (KC). Immunosuppressive medications are associated with an increased risk for KC and melanoma due to reduction of anti-tumor immune surveillance, and some immunosuppressive agents directly impact DNA replication and repair. Clinical and epidemiologic studies have shown an increased risk for KC in users of photosensitizing medications. Additional mechanisms include drug-induced modulation of DNA damage repair, enhancement of keratinocyte proliferation, and direct carcinogenic effect. Alternatively, some medications potentially decrease KC risk. This article reviews the literature on medications associated with KC risk.

### **Cutaneous Surgery in Patients Who Are Pregnant or Breastfeeding**

307

Jeffrey N. Li, Rajiv I. Nijhawan, and Divya Srivastava

Dermatologic surgery in pregnant/postpartum patients requires deliberate consideration. Although surgery can be safely performed during any trimester, the second trimester and immediate postpartum period is optimal. Surgery should not be delayed for melanoma/high-risk skin cancers. Perioperative positioning, analgesic, antiseptic, and antibiotic selection should be deliberate to avoid risk to the patient/fetus/infant. The left lateral tilt position reduces aortocaval compression syndrome. Lidocaine and epinephrine can be used safely. Alcohol and chlorhexidine are considered safe. Antibiotics commonly used in skin surgery are safe in pregnancy and lactation. Acetaminophen is first line for pain management. Nonsteroidal antiinflammatory drugs should be avoided.

**Optimizing Patient Safety in Dermatologic Surgery** 319

Cory Smith, Divya Srivastava, and Rajiv I. Nijhawan

Overall, dermatologic surgery performed in the outpatient setting is very low risk to patients and safer than similar procedures performed under general anesthesia, and is also more cost-effective. There are several approaches to mitigating the risk of complications while optimizing patient outcomes. Strict oversight of the dermatology clinic helps to ensure team members all adhere to standards of care. Vial safety, strict hand hygiene, limiting the use of topical antibiotics, generally continuing all blood thinners perioperatively, and prebiopsy photographs are all examples of approaches to help maximize patient safety.

**Perioperative Antibiotic Use in Cutaneous Surgery** 329

Hillary Johnson-Jahangir and Neha Agrawal

Oral antibiotic prophylaxis is overly prescribed for procedures involving the integumentary system (skin, hair, nails, and related subcutaneous tissue) and mucosa. Preoperative antibiotic prophylaxis preventing infective endocarditis or hematogenous prosthetic joint infection is recommended only when operating on infected or mucosal sites of select, high-risk patients. There are limited data supporting oral antibiotic use to prevent surgical site infections, and antibiotics are not recommended for routine use. Alternatives to oral antibiotics that may reduce infection risk, such as wound antisepsis, are sought. Altogether, risk stratification and antibiotic stewardship are both necessary for appropriate perioperative oral antibiotic use for dermatologic surgery.

**Postoperative Pain Management in Dermatologic Surgery: A Systematic Review** 341

Michael Saco and Nicholas Golda

Given the opposing pressures placed on dermatologists and dermatologic surgeons by the need for adequate postoperative analgesia and the current US opioid epidemic, a systematic review was performed to analyze postoperative pain management in outpatient dermatologic surgery. Dermatologic procedures are generally associated with minor postoperative pain of short duration. Anxiety reduction may lead to less postoperative pain. Studies vary on which anatomic locations and repair types are more or less associated with pain. Evidence supports the use of acetaminophen and ibuprofen for first-line postoperative analgesia in dermatologic surgery. Opioids, if given, should only be prescribed in small quantities.

**Surgical Dressings and Novel Skin Substitutes** 349

Eileen Axibal and Mariah Brown

Dressings are integrally tied to wound outcomes in dermatologic surgery. Due to the wide range of wound types and dressing options available, dressing selection can be a formidable task. An understanding of dressing materials and their unique properties allows for a tailored approach to postoperative wound care. Conventional layered dressings often are suitable for uncomplicated dermatologic surgery wounds. Occlusive dressings and tissue-engineered skin substitutes may be warranted in more complex cases. This review is intended to equip the reader with the knowledge and confidence to successfully manage surgical wounds in dermatology.

**Patient-Centered Care in Dermatologic Surgery: Practical Strategies to Improve the Patient Experience and Visit Satisfaction**

367

Michael P. Lee, Shannon W. Zullo, Joseph F. Sobanko, and Jeremy R. Etzkorn

Patient-centered care in dermatologic surgery emphasizes addressing the preferences, values, and concerns of the surgical patient in an effort to improve the overall experience. Impediments affecting the delivery of Mohs micrographic surgical treatment of skin cancers are present throughout the perioperative period. Defining actionable strategies to improve outcomes can be challenging due to sparse literature and minimal high-quality scientific studies. This review focuses on the current evidence supporting practical recommendations in each surgical setting to improve the patient experience and increase visit satisfaction.

**Surgical and Noninvasive Modalities for Scar Revision**

375

Rachel E. Ward, Lindsay R. Sklar, and Daniel B. Eisen

Scar revision is of premier importance to the dermatologic surgeon. Some of the least invasive modalities include use of silicone gel sheets, resurfacing with electro-surgical instruments, dermabrasion, chemical peels, and subcision. Laser technology also has been implemented to selectively target and ablate fibrous scar tissue via selective thermolysis. Other lasers have been used to target dyschromia associated with scar formation. Lastly, invasive modalities of scar revision include excisional modalities and/or rearrangement of skin to enhance cosmesis of unsightly or morbid scars. Herein is a discussion of the multiple modalities of scar revision as well as advantages and disadvantages of each.

**Pearls for Dermatologic Surgery in Pediatric Patients**

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Nnenna G. Agim and Kishan M. Shah

To achieve successful dermatologic surgery in a pediatric patient, several factors should be considered, including recognizing a child's inherent anxiety, ability to understand/comply with instructions, engaging their caregiver, and minimizing pain. Distraction techniques, including use of smart devices or classic play, have been shown to reduce anxiety, perception of pain, and increase overall satisfaction with the needed procedure. Customizing the child's need based on their stage of development and family preferences further improves how effectively the techniques are deployed. Because children are naturally playful, suturing techniques and dressing of surgical wounds may also require modification for best possible outcome.