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### Integrating genomics for the diagnosis and prognosis of melanoma into clinical practice



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**Background:** Despite being readily available in the clinical setting and prevalent usage of diagnostic and prognostic gene expression profiles (GEP) for the management of melanoma, no recommendations exist to direct their integration into clinical practice. To meet this need, a set of expert-derived, consensus-based appropriate use criteria (AUC) recommendations for the usage of GEP profiling technology in the diagnosis and management of melanoma in specifically-defined situations commonly encountered by the practicing dermatologist was developed.

**Methods:** A systematic Medline literature search was performed to identify existing evidence relevant to the clinical efficacy and utility of three melanoma GEP assays that met the inclusion criteria (validated in peer-reviewed literature, CLIA-certified, and currently widely used) for review (2-GEP and 23-GEP for diagnosis and 31-GEP for prognosis). An expert panel of nine dermatologists/dermatologic surgeons/dermatopathologists evaluated clinical scenarios for the appropriate use of GEP assays and reviewed the available literature to make evidence-based recommendations for each indication. A modified Delphi technique was used to achieve consensus and standard SORT criteria were applied.

**Results:** 7 clinical indications having A, B or C SORT strength evidentiary support were determined for the 2-GEP test, 8 for the 23-GEP test and 14 for the 31-GEP test.

**Conclusions:** These AUC recommendations provide an evidence-based framework for the integration of these diagnostic and prognostic GEP tests into melanoma management in clinical practice.

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### Trends in the outpatient use of group C topical corticosteroids in the United States, 2003-2016



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**Background:** Topical corticosteroids (TCS) are widely used for their anti-inflammatory and anti-proliferative effects in the ambulatory setting. Despite their use in allergic contact dermatitis (ACD), corticosteroids themselves may cause immune mediated hypersensitivity reactions. Group C TCS have lower rates of allergenicity among corticosteroid groups.

**Objective:** Assess trends in group C TCS use in US ambulatory clinics and emergency departments and identify patient and prescriber attributes associated with its use.

**Methods:** Data from the National Ambulatory Medical Care Survey from 2003 to 2016, NHAMCS OPD from 2003 to 2011, and NHAMCS-ED from 2003 to 2016 were aggregated and analyzed for the number of group C TCS prescriptions.

**Results:** Approximately 2.4% of visits to dermatologists mentioned a group C TCS compared with 0.38% of visits to a non-dermatologist. First visits to dermatologists were 4.65 (95% CI 3.02-7.17) times more likely to mention a group C TCS than non-dermatologists. Respectively, patients 20-35 years old and those older than age 35 were 2.23 (95% CI 1.66-2.98) and 3.13 (95% CI 2.43-4.04) times more likely to be prescribed group C TCS than patients younger than 20 years old. Patients with private insurance were 1.28 (95% CI 1.11-1.48) times more likely to be prescribed a group C TCS than those without private insurance.

**Conclusions:** Prescribing differences among specialties may be due to dermatologists' familiarity with TCS ACD. There may be an increased incidence of TCS allergy as age increases. Costs of group C TCS likely affect its prescribing patterns.

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### Topical corticosteroid phobia among parents of children with atopic dermatitis: A survey study



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**Background:** Topical corticosteroids (TCS) are among the most frequently prescribed drugs in dermatologic practice. Parents and caregivers often have anxiety regarding TCS use for their children, which leads to decreased quality of life and treatment failure. **Objective:** To assess beliefs and concerns regarding TCS among parents of children with dermatologic conditions. Also, we investigate the degree of phobia related to the potency of TCS prescribed.

**Methods:** Parents and caregivers were invited to complete the twelve item TOPICOP questionnaire after their visit in the pediatric dermatology clinic. This questionnaire quantifies the degree of corticophobia, expressed as a percentage, with higher scores representing greater corticophobia. Following survey completion, the specific TCS and potency prescribed were recorded. Potency was subdivided into three classes: high (class 1/2), medium (class 3-5), and low potency (class 6/7).

**Results:** Of 41 parents surveyed, the high-potency group (n = 5) had a mean score of 17.8 compared with the medium-potency group (n = 30; score = 12.8) ( $P = .063$ , 95% CI -0.28-10.28). Parents of the low-potency group (n = 6) had significantly greater phobia (score 18.16) than the medium-potency group (n = 30; score = 12.8) ( $P = .032$ , 95% CI 0.47-10.25).

**Conclusions:** Despite their extensive use in treating pediatric skin diseases, corticophobia continues to exist in parents. Greater corticophobia was present in parents of children on high potency topical corticosteroids compared with medium potency, but the difference was not statistically significant. Parents in the low potency group had higher corticophobia scores than those in the medium potency group.

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### Efficacy of bleomycin application on periungual warts after treatment with ablative carbon dioxide fractional laser: A pilot study



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**Background:** Treating periungual warts is a therapeutic challenge. Treatments are often ineffective and may cause complications including permanent nail changes, pain, and scarring. Translesional bleomycin delivery via the multipuncture technique is now reported.

**Methods:** Warts were treated with ablative carbon dioxide fractional laser, after which bleomycin was applied. Patients were treated every 2 weeks until the lesions disappeared. Treatment was discontinued if adverse events occurred or the patient wanted to stop. **Result:** Seventeen patients (11 women, mean age 16.23 years) with a total of 37 warts were enrolled from May 2017 to August 2018. Twenty-six lesions (68.4%) achieved complete clearance; 3 (7.8%) had excellent partial response (>75% improvement). The warts clearing completely did not recur over the follow-up period of 6 months. No significant long-term adverse effects occurred. One lesion showed postinflammatory hyperpigmentation, resolving within 1 month; 5 patients (29%) had short-term localized moderate pain after treatment.

**Conclusions:** Bleomycin solution after ablative carbon dioxide fractional laser can be considered as an alternative treatment for periungual warts. Further large controlled studies are necessary to validate effectiveness and find an optimal regimen.

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