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**Infantile hemangioma referral delays persist despite 2019 American Academy of Pediatrics Clinical Practice Guideline: Experience at a single quaternary pediatric institution**L Montoya, K Johnson, JA O'Haver and HN Price *Dermatology, Phoenix Children's Hospital, Phoenix, Arizona, United States*

Infantile hemangiomas (IH) are vascular tumors that often require timely treatment to reduce morbidity.<sup>1,2</sup> The 2019 American Academy of Pediatrics (AAP) Clinical Practice Guidelines (CPG) for the Management of IH recommend referral to dermatology prior to 4 weeks of age, enabling timely treatment initiation.<sup>1</sup> This study examines adherence to national guidelines and aims to identify barriers to appropriate referral timing & treatment. This retrospective cohort study examined IH patients, ages 0 to 24 months, referred to Phoenix Children's Hospital (PCH) Dermatology from 1/1/2019 to 12/31/2020, following release of AAP CPG. Patients were categorized into age appropriate ( $\leq 4$  wks) or late ( $> 4$  wks) referral groups. Associations of referral age w/ demographics/treatments were examined. Among 791 patients identified, 46 (6%) were appropriately referred at  $\leq 4$  weeks of age, 680 (86%) were referred late at  $> 4$  weeks of age, and 65 (8%) had missing referral dates. For the group of 343 patients who were referred and treated w/ propranolol, mean age at referral, initial dermatology visit, and propranolol initiation was 3.2, 3.8, & 4.2 months, respectively. No statistical differences ( $p \leq 0.05$ ) were detected in gender, race, insurance, language, or rates of propranolol/timolol treatment between referral groups. Despite AAP recommendations, the vast majority of infants with IH are referred to PCH Dermatology after 4 weeks of age. Late referral has led to treatment initiation after the rapid growth phase in most patients, which is problematic for those w/ high-risk hemangiomas. Patient demographics were not correlated w/ referral category suggesting that other factors, such as primary care provider referral practices and the COVID-19 pandemic, may have contributed to delayed referrals. Based on mean age at referral and treatment initiation, patients may have already experienced complications from their hemangiomas, which could result in increased healthcare utilization, costs, & morbidity. References: 1) Krowchuk DP et al. Clinical Practice Guideline for the Management of Infantile Hemangiomas: American Academy of Pediatrics. Pediatrics, Jan 2019; 143(1). 2) Tollefson MM and JJ Frieden. Early growth of infantile hemangiomas: what parents; photographs tell us. Pediatrics, Aug 2012; 130(2): e314-20.

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**Qualitative study of medical decision making among patients with hidradenitis suppurativa**Y Sow<sup>2</sup>, N Salame<sup>1</sup>, M Siira<sup>3</sup>, N Flowers<sup>1</sup>, A Garg<sup>4</sup>, D Kavalieratos<sup>3</sup>, R Patzer<sup>3</sup>, SC Chen<sup>5</sup> and L Orenstein<sup>1</sup> *1 Emory University School of Medicine, Atlanta, Georgia, United States, 2 Morehouse School of Medicine, Atlanta, Georgia, United States, 3 Emory University School of Public Health, Atlanta, Georgia, United States, 4 Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, New York, United States and 5 Duke University School of Medicine, Durham, North Carolina, United States*

Hidradenitis suppurativa (HS) is a chronic inflammatory disease characterized by recurrent, painful tunnels and abscesses predominantly in intertriginous sites. Despite the Food and Drug Administration's approval of adalimumab for HS, prescription rates remain low. Low biologic prescription rates may result from patient preferences, provider comfort, inadequacy of real-world outcomes, or health systems factors. Poor disease control may increase need for analgesics and alternative pain-relief seeking strategies. This qualitative study aims to elucidate HS patient attitudes and knowledge about opioid and biologic therapies, preferences for provider communication, and factors influencing treatment decisions. Interviews were conducted with English-speaking patients  $\geq 18$  years of age with average Numeric Rating Scale (NRS) pain score in the past 7 days of  $\geq 1$ . Data collection continued until thematic saturation was reached at 21 interviews. Mean age was 38.5 years (IQR 27.9-43.4); 76% of participants were female and 71% were African American. Almost all (96%) participants had Hurley Stage II or III disease. Mean NRS score for pain over the preceding week was 6 (IQR 3-7) and 62% of patients had Dermatology Life Quality Index scores  $\geq 11$ . Factors that influenced patients' medical decision making include perceived therapeutic risks, social influences, and access barriers. Personal factors such as disease severity, effectiveness of current regimen, and attitudes towards healthcare also influenced the decision to pursue therapies. Elucidating patient medical decision-making may uncover opportunities for improved patient-provider communication, adherence to treatment plans, and, potentially, outcomes in HS.

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**Trends in teledermatology utilization in the United States**A Patel<sup>2</sup>, C Rundle<sup>1</sup>, B Liu<sup>1</sup>, C Green<sup>3</sup> and M Khetarpal<sup>1</sup> *1 Department of Dermatology, Duke University School of Medicine, Durham, North Carolina, United States, 2 Duke University School of Medicine, Durham, North Carolina, United States and 3 Department of Biostatistics & Bioinformatics, Duke University School of Medicine, Durham, North Carolina, United States*

Background: Teledermatology is an effective healthcare delivery model that has seen tremendous expansion over the last decade, which has been particularly pronounced during the Coronavirus Disease 2019 (COVID-19) pandemic. Objective: To better understand teledermatology utilization and patient demographic trends throughout the COVID-19 pandemic. Methods: National-level data were curated for all practices enrolled in the American Academy of Dermatology's DataDerm registry from April 1, 2020, through June 30, 2021. Encounter utilization rates were collected for visit type (i.e., teledermatology versus in-person), sex, race, age, insurance provider, and location. Results: Data from up to 13,964,816 encounters across the United States were analyzed. Sex, race, age, insurance provider, and location were each found to have a significant association with telemedicine utilization (adjusted  $p < 0.001$ ). The proportion of women who utilized services via teledermatology ( $n=65,023$ , 66.0%) was greater than those who utilized in-person services ( $n=2,940,122$ , 58.3%). Non-white patients made up a higher percentage of teledermatology utilizers ( $n=8,920$ , 14.3%) when compared to in-person utilizers ( $n=394,680$ , 11.2%). Younger patients (age  $< 40$ ) contributed more to teledermatology service utilization ( $n=62,695$ , 83.2%) when compared to in-person services ( $n=1,329,218$ , 40.3%). Medicare and Private were larger payor contributors for in-person services ( $n=1,089,777$ , 25.2%;  $n=2712594$ , 62.6%) than for teledermatology services ( $n=8232$ , 5.4%;  $n=73940$ , 48.2%). Utilization by out-of-state patients was proportionally higher for teledermatology services ( $n=19,422$ , 14.6%) compared to in-person services ( $n=580,358$ , 4.2%). Conclusions: Teledermatology services may reach and benefit certain populations (females, younger patients, non-White races, out-of-state patients) more so than others.

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**Skin cancer treatment delays during the COVID-19 pandemic**CB Lau, K Yang, CX Pan, WC Lau, B Kassamali and V Nambudiri *Department of Dermatology, Brigham and Women's Hospital, Boston, Massachusetts, United States*

The COVID-19 pandemic has considerably disrupted health care delivery, presenting challenges for dermatologists. We investigated the scope of delayed treatment for melanoma and non-melanoma skin cancers in relation to other cancer types during the COVID-19 pandemic. Respondent data from the National Health Interview Survey (NHIS) was analyzed for the year 2020. Data included demographic information as well as delays and cancellations of cancer treatments due to the coronavirus pandemic. Multivariate odds ratios were calculated using the statistical software, IBM SPSS. P-values  $< .05$  were considered statistically significant. The study cohort comprised a weighted frequency of 5,120,506 respondents with non-melanoma skin cancer (NMSC) and 2,171,953 respondents with melanoma. The average age for patients with NMSC and melanoma was 67 and 65.9, respectively. Patients with NMSC were found to have more delays/cancellations with cancer treatment during the pandemic compared to patients with breast cancer, brain cancer, lung cancer, colon cancer, colorectal cancer, and bladder cancer. Patients with melanoma had more delays and cancellations of treatment compared to patients with breast cancer, leukemia, brain cancer, lung cancer, colon cancer, pancreatic cancer, colorectal cancer, and bladder cancer. Notably, patients with melanoma were found to have more delays in treatment than patients with NMSC (OR 1.23,  $P < .001$ ). Treatments for NMSC and melanoma were delayed more often compared to most other cancers during the pandemic. These observations suggest that skin cancer care may be particularly vulnerable to care disparities during the pandemic as delays in skin cancer treatments may potentially lead to adverse outcomes. Our finding that melanoma treatment was delayed significantly more often compared to NMSC treatment is surprising given the higher likelihood of metastasis and mortality associated with melanoma. Our study provides valuable insight into the delays of skin cancer treatments experienced by patients in relation to other cancer treatments.

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**Public sunscreen dispenser distribution in the United States: Continued COVID-19 trends during 2021**MD Szeto<sup>1</sup>, R Kokoska<sup>2</sup>, J Maghfour<sup>3</sup>, C Rundle<sup>4</sup>, C Presley<sup>5</sup>, T Harp<sup>6</sup>, A Hamp<sup>7</sup>, V Wegener<sup>8</sup>, J Hught<sup>9</sup> and R Dellavalle<sup>1,10</sup> *1 Department of Dermatology, University of Colorado, Aurora, Colorado, United States, 2 Indiana University School of Medicine, Indianapolis, Indiana, United States, 3 Dermatology, Henry Ford Hospital, Detroit, Michigan, United States, 4 Dermatology, Duke University Hospital, Durham, North Carolina, United States, 5 Division of Dermatology, Lehigh Valley Health Network, Allentown, Pennsylvania, United States, 6 College of Osteopathic Medicine, Rocky Vista University, Parker, Colorado, United States, 7 College of Osteopathic Medicine, Midwestern University, Glendale, Arizona, United States, 8 Pre-Medical Postbaccalaureate Program, University of California Berkeley, Berkeley, California, United States, 9 Dermatology, Colorado Kaiser Permanente Medical Group, Centennial, Colorado, United States and 10 Dermatology, VA Eastern Colorado Health Care System, Aurora, Colorado, United States*

The COVID-19 pandemic may have significantly affected consumer preferences and societal behavior regarding sun protection and skin cancer. IMPACT Melanoma is a United States nonprofit organization for skin cancer prevention/education, and a prominent nationwide sunscreen distributor. Substantial decreases in the distribution of public dispensers and sunscreen were noted at the onset of the pandemic in 2020, especially to public health departments and parks/recreation facilities. Analysis of 2021 data has revealed that total distribution remained at similar levels relative to 2020. However, private business (-77%), public health department (-71%), and healthcare facility (-41%) orders decreased the most, while nonprofits (+612%) and educational institutions (+86%) greatly increased orders. 2021 orders continued to demand only hybrid (physical combined with chemical formulation) sunscreens. Maine, Massachusetts, and Wyoming received the greatest total numbers of dispensers and sunscreen in 2021. Despite organizational and regional fluctuations, these persistent overall reductions in public access to sunscreen are concerning, and corroborate broader pandemic patterns of falling retail consumer sunscreen sales. Dermatologists should be made aware of this pandemic-era erosion of consumer attitudes towards sun protection and sun damage risk, and encouraged to continue advocating for sunscreen use during the pandemic.

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**Utilization of resources for cellulitis in hospitalized patients: Predictors of cutaneous abscess diagnosed on ultrasound**B Cucka, B Biglione, S Chand, R Rapi, C Gabel, S Song and D Kroshinsky *Dermatology, Massachusetts General Hospital, Boston, Massachusetts, United States*

Cellulitis and cutaneous abscess are the most common skin and soft tissue infections (STI), accounting for 4 million emergency department (ED) visits and 1.5 million incision and drainage (I&D) procedures. Ultrasound (US) may differentiate cellulitis from abscess more accurately than clinical evaluation and reduces inappropriate I&D procedures, unnecessary antibiotics, and failure to resolve post-drainage. However, there are currently no standardized guidelines for imaging patients. This study assesses the use of imaging in patients diagnosed with cellulitis and the association with clinical risk factors to predict the likelihood of cutaneous abscess diagnosed on US. A retrospective chart review of adult inpatients treated for cellulitis from 2013 through 2018 was conducted. Of the 788 patients who met inclusion criteria, 300 (38.1%) obtained an ultrasound for evaluation of cellulitis, of which 34(11.3%) received a diagnosis of cutaneous abscess. Infection over permanent hardware(8.8%,  $p=0.018$ , OR 10.5), infection of groin and buttocks(17.6%,  $p=0.008$ , OR 6.86), and active intravenous drug use (IVDU)(44.1%,  $p=0.003$ , OR 2.44) were identified as positive predictors of cutaneous abscess on ultrasound. A history of heart disease(5.9%,  $p=0.014$ , OR 0.26), tachycardia at presentation(41.2%,  $p=0.029$ , OR 0.32) and hemoglobin less than 11.5 g/dl( $p=0.003$ , OR 0.32) were identified as negative predictors of cutaneous abscess on ultrasound. This study is retrospective at a single academic medical center, which may limit its generalizability on a national level. These findings may guide the clinical decision to obtain imaging preferentially in patients with cellulitis overlying permanent hardware, cellulitis of groin and buttocks, and a history of active IVDU and limit use of imaging in cases of cellulitis that lack specific clinical features concerning for abscess.