373 Do less satisfied patients utilize more healthcare resources? A population study among U.S. adults with psoriasis
C Read1, ANW Zhang1, V Lee1, S Peracca2, Q Lai2, B Zheng1, LY Ye3, S Wen4, Y Yan5, P Elias1 and B Yang1 1 Dermatology, University of Southern California, Los Angeles, California, United States and 2 Medicine, Imperial College London, London, United Kingdom
How satisfied patients perceive their healthcare utilization is rarely studied in adults with skin diseases. Healthcare utilization, such as hospitalizations, accounts for one-third of the annual economic burden of psoriasis. We sought to determine the impact of patient satisfaction on healthcare utilization among U.S. adult patients with psoriasis. One way that patient satisfaction is measured is through evaluation of patients’ perception of provider–patient communication. We performed a cross-sectional study using the Medical Expenditure Panel Survey (MEPS) from 2000–2017. Among 10,011,316 (weighted) U.S. adults ≥18 years with psoriasis during the 18-year period, 428,786 (4%) reported low patient satisfaction; 5,673,170 (57%) reported medium patient satisfaction, and 3,911,550 (39%) reported high patient satisfaction. Healthcare utilization was measured using emergency room (ER) visit and overnight inpatient hospitalization frequencies. We adjusted for socio-demographic characteristics, patient-related factors, and health status. The lowest rates of ER visit in the past year were seen among patients with low patient satisfaction (0.21 visits per person-year), followed by medium satisfaction (0.28 visits per person-year) and high satisfaction (0.30 visits per person-year; p < 0.001). Compared to patients reporting high patient satisfaction, patients reporting low patient satisfaction had a 3.6 times greater likelihood of having an ER visit (Adjusted OR: 1.64 (95% CI: 1.83-1.76); p < 0.001). Compared to patients reporting high patient satisfaction, patients reporting low patient satisfaction had 3.1 more overnight inpatient hospitalizations (β = 3.05 (95% CI 2.12-1.76); p < 0.001); and a 4.7 times greater likelihood of having an overnight inpatient hospitalization (Adjusted OR: 4.65 (95% CI 4.32-5.05); p < 0.001). Conclusion: Low patient satisfaction with healthcare providers is associated with greater healthcare utilization among U.S. adults with psoriasis.

375 The association between antibiotics for acne and subsequent infection sequelae and antimicrobial resistance: A systematic review
K Bhate1, J Lin1, J Barbieri, R Mahur1, S Simnott1 and S Langan1 1 University of Pennsylvania, Philadelphia, Pennsylvania, United States and 2 London School of Hygiene and Tropical Medicine, London, United Kingdom
Background: Antimicrobial resistance (AMR) is a major global health priority and antibiotics are the leading contributor to increasing AMR. Acne is highly prevalent and antibiotics are used to treat acne over millions of years. The dominant role antibiotics play in the treatment of healthy people with acne leads to questions about associations with AMR. Aim: To systematically search for and synthesise evidence around whether long-term oral antibiotic use in the treatment of acne in those over 8 years of age contributes to increased risk of infection or other outcomes suggestive of AMR. Method: We searched the following databases: Embase, MEDLINE, Cochrane and Web of Science using strategies developed with a librarian. Searches ran in July 2019 and were back to database inception. Inclusion criteria: RCT, cohort or case-control studies investigating oral antibiotics for minimum of 28 days compared to those with acne not treated with oral antibiotics or the general population. Primary outcome: antibiotic treatment failure or infection or other outcomes suggestive of AMR. Data were extracted and analysed using the Cochrane Collaboration’s Review Manager software. Results: 6996 abstracts and titles were screened for eligibility, 73 full text papers were read, and seven papers were included. Most were short term (≤6 months) with low patient satisfaction. Results from these studies are therefore not generalisable to longer term oral antibiotic usage. Conclusion: Long-term oral antibiotic usage for acne is associated with adverse infection sequelae and antimicrobial resistance with a high prevalence of cutaneous infections reported in these studies. A role for antibiotics in preventing infections remains unclear but must be balanced with the high prevalence of AMR.

377 Factors associated with late initiation of adjuvant radiotherapy in Merkel cell carcinoma
AO King1, Y Lee1, FN Mirza2 and Y An1 1 Dermatology, Yale School of Medicine, New Haven, Connecticut, United States and 2 Therapeutic Radiology, Yale School of Medicine, New Haven, Connecticut, United States
Introduction: Merkel Cell Carcinoma (MCC) is a rare skin malignancy with risk for locoregional recurrence and metastasis after definitive surgery. Several retrospective studies have suggested a survival benefit to be associated with the use of adjuvant radiotherapy (RT) after primary surgical resection and adjuvant RT is considered standard of care for high risk patients. Ideally, adjuvant RT should be initiated promptly after resection as delays in adjuvant therapy may allow tumor to regrow. Methods: We examined 4,615 cases of MCC in the National Cancer Database (NCDB). Patients that were diagnosed at age ≥18, pathologic stage 1, and pathologic stage 2 were included. Patients with nodal involvement, no surgery, or palliative radiation were excluded. Patients who started RT more than 42 days after definitive surgery were considered to have received late adjuvant RT. Results: Factors associated with later initiation of adjuvant radiotherapy included: primary tumor status at the upper limbs and shoulder vs. the head and neck (Odds Ratio [OR] 0.73; 95% Confidence Interval [CI] 0.54-0.98; p = 0.041), tumor size of 1-2 cm vs. tumor size < 1 cm (OR 0.69, 95% CI 0.50-0.94; p = 0.020), a tumor size ≥2 cm vs. tumor size <1 cm (OR 0.67, 95% CI 0.48-0.93; p = 0.018), and lymphovascular invasion (OR 0.70, 95% CI 0.52-0.92; p = 0.012). Discussion: An understanding of factors associated with a greater time interval following primary resection to initiation of adjuvant RT may shed light on how timeliness of RT initiation is prioritized for patients. Further studies may provide guidance for patients and caregivers on how to initiate adjuvant radiation treatment earlier in patients with more severe disease.

379 Implementing a teledermatology patient-facing mobile application in the VA
AO Foote1, S Peracca2, Q Lachica1, M Morris1, H King1, G Jackson1, A White1, DH On2 and MA Weinstein1,2 1 Dermatology, Brown University, Providence, Rhode Island, United States, 2 Center for Dermatoepidemiology, Providence Veterans Affairs Medical Center, Providence, Rhode Island, United States, 3 Dermatology, University of California, San Francisco, San Francisco, California, United States, 4 San Francisco Veterans Affairs Health care system, San Francisco, California, United States, 5 Duke University School of Medicine, Durham, North Carolina, United States and 6 Durham Veterans Affairs Health Care Center, Durham, North Carolina, United States
Enhancing access to care is a general problem for health care and understanding how technological interventions are successfully implemented is increasingly important in a digital health care world. To identify key factors for implementing a teledermatology app in a large, complex, integrated health care system, we performed a qualitative formative evaluation of a patient-facing app that is being deployed by the U.S. Department of Veterans Affairs (VA) to provide dermatology care. The app allows patients to follow up with dermatologists remotely using their mobile devices. We analyzed a primary care provider random sample of 33 staff dermatologists who completed interviews and questionnaires about the use of the app. We performed a thematic analysis of the data to identify themes. We found that VA staff dermatologists had high levels of satisfaction with the use of the app and they described the app as a valuable tool that increased access to dermatology care. The results suggest that it is important to consider the following factors: 1) providing in-person as well as virtual training to dermatologists and providing easily accessible resources on use of the app, 2) considering clinician and staff workflow and availability, 3) introducing additional incentives for providers, and 4) advertising the availability and requirements of the app to appropriate patients.