**Poster 1**

**LONGITUDINAL RESIDENT CLINICS IN THE UBC DERMATOLOGY RESIDENCY PROGRAM**

Saima Ali, Allison Gregory

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

Continuity of care for patients leads to improved health outcomes and long-term follow-up is a key component in the management of many dermatologic diseases. In the current UBC dermatology residency curriculum, residents rotate through 1-month blocks; however, regular dermatology outpatient follow-ups generally occur at 2–4-month intervals. Thus, residents are unable to become proficient in competencies of chronic disease management via ongoing follow-up which is required in the Canadian dermatology residency curriculum.

To determine if weekly longitudinal clinics improve residents' management of chronic dermatologic diseases and provide preparedness for community practice.

A non-experimental study design with a mixed methods convergent approach will be used in which the 4$^{th}$ year dermatology resident cohort will each be matched to a community preceptor for a one-year longitudinal half-day clinic every two weeks. Competence of chronic dermatologic disease management and preparedness for practice will be measured through the "Transition-to-Practice EPAs #2 & #3: managing patients with a dermatologic disease in an outpatient setting & managing a longitudinal clinic" completed by the preceptor at 0, 3, 6, 9, 12 months. Residents will collect clinic demographics daily. Resident experience will be quantitatively assessed through an online modified Learners' Perception Survey completed at the end of the program. Qualitative assessment of resident and preceptor experience will be sought through semi-structured interviews scheduled every 4 months.

Results to come as survey responses are still being completed.

CONCLUSION: To be determined.

Category: Early experiments

**Poster 2**

# IS PHOTOTHERAPY ASSOCIATED WITH HIGH MEDICO-LEGAL RISK? AN ANALYSIS OF CANADIAN MEDICO-LEGAL TRENDS

Yvonne Deng1, Sunil Kalia 2,3,4,5,6, Jeffrey Toy2, Laura Payant7, Gary E Garber7,8, Tashmeeta Ahad2,3

1 Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada.
2 Department of Dermatology and Skin Science, University of British Columbia, Vancouver, British Columbia, Canada.
3 Photomedicine Institute, Vancouver Coastal Health Research Institute, Vancouver, BC, Canada
4 Centre for Clinical Epidemiology and Evaluation, Vancouver Coastal Health Research Institute, Vancouver, British Columbia, Canada
5 Department of Cancer Control and Integrative Oncology, BC Cancer, Vancouver, British Columbia, Canada
6 British Columbia Children's Hospital Research Institute, Vancouver, British Columbia, Canada
7 Department of Safe Medical Care Research, Canadian Medical Protective Association, Ottawa, Ontario, Canada
8 Department of Medicine and the School of Epidemiology and Public Health University of Ottawa, Ottawa, Ontario, Canada

Research exploring medico-legal risks associated with phototherapy is currently limited. Previous studies performed in the Scottish population suggest that phototherapy is a frequently litigated area in dermatology. We aim to characterize the Canadian medico-legal landscape for physicians offering phototherapy and highlight factors contributing to patient complaints.

Medico-legal data were extracted from the Canadian Medical Protective Association's (CMPA) national database for cases closed from 01/01/2013-12/31/2022 with Canadian Classification of Health Interventions code for phototherapy and CMPA expansion code for light therapy. Cases included civil-legal actions, hospital complaints, and regulatory authority complaints.

CMPA closed 11 phototherapy-related cases, of which 8 involved ultraviolet phototherapy and 3 involved photodynamic therapy (PDT). These cases represented 2.7% of all medico-legal cases involving dermatologists (n=410). The most common physicians involved were dermatologists (92.3%). Burn complications were described in <5 cases using ultraviolet phototherapy, in which most cases were acknowledged to be secondary to inherent risks of the procedure as opposed to physician error. No burns were sustained in PDT cases. Expert-reviewed factors contributing to complaints included inadequate consent, inadequate administrative processes, documentation issues, deficient assessment, and procedural violations.

Medico-legal cases involving phototherapy appear to be rare in Canada, despite the high volume of patients receiving phototherapy and relatively common adverse effect of burning. This suggests medico-legal risk associated with phototherapy may ***vary*** depending on the country or healthcare system. Engaging in robust informed consent discussions, including advising patients on the risks of the procedure, and ensuring thorough clinical documentation, may reduce medico-legal risk and improve patient safety

**Poster 3**

**OUTPATIENT CUTANEOUS BIOPSY FOLLOW-UP**

Neil Kitson, Marianna Jacob

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

Cutaneous biopsies are often obtained in dermatology practice to aid in the diagnosis of a variety of dermatological conditions including infectious and inflammatory dermatoses, as well as cutaneous cancers. There is a number of diagnostic tests that can be organized to investigate different dermatological conditions, yet skin biopsy is the most commonly utilized tool in every dermatology practice. The number of annual skin biopsies is on the rise, and it is expected to continue to grow over the coming years, especially with the growing prevalence of skin cancer. (1) (2) Unlike other organ biopsies in medicine, skin biopsies can easily be planned and efficiently done in an outpatient setting and every dermatology office is well-equipped for these procedures. Although there is a standard approach for performing all skin biopsy procedures, there does not seem to be a standardized process for biopsy result follow-ups. Every practice operates differently, and many factors come into play including the manpower, electronic medical records (EMR) system and its functionalities, practice volume, number of providers in each practice and encounters modalities. In this study, we tried to identify potential deficiencies in our system and barriers to the delivery of biopsy results and communicating these results with our patients in a timely manner. Patient care and skin disease prognosis, especially skin cancer, can be significantly impaired by delays in communicating these results. Our goal is to develop a reliable and consistent approach in our practice to ensure efficient and timely follow-ups with patients.

Category: Pilot/exploratory experiments (Quality improvement project)

**Poster 4**

# TOPICAL TOFACITINIB REDUCES TISSUE RESIDENT MEMORY T-CELL NUMBERS AND IL-15-RECEPTOR EXPRESSION FOLLOWING CONTACT HYPERSENSIIVITY

Touraj Khosravi-Hafshejani[1], Mehran Ghoreishi[1], Jan P. Dutz[1]

[1]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, BC, Canada

Systemic therapy for eczema targets the immune system during active inflammation. Disease inevitably returns to previously inflamed skin due to the persistence of tissue resident memory T (Trm) cells responding to autoantigens/allergens. The survival of Trm cells is regulated by IL-15. We previously showed that tissue resident memory T (Trm) cells expressing IL-15-receptors accumulate in skin following repeat contact hypersensitivity reactions. Topical tofacitinib, a JAK1/3 blocker, inhibits the IL-15-receptor signalling cascade and may provide further insights into long-term remission of inflammatory skin diseases.

Mice were sensitized on the abdomen with the allergen 2,4-dinitrofluorobenzene (DNFB) (day -5), and then challenged on their ears on day 0. Mice then received topical application of tofacitinib twice a day for four weeks, and then re-challenged with DNFB on day-30. The control group did not receive treatment. Ear swelling was measured every 12-hours for 96-hours post challenge. Ear skin was harvested 2-days (inflamed skin) and 15-days (healed skin) after DNFB ear re-challenge.

The topical tofacitinib group resulted in significantly less ear swelling at 30-day re-challenge compared to the control group ($p<0.05$). The number of Trm cells expressing IL-15-receptors in both inflamed and healed skin post 30-day re-challenge was significantly reduced in the topical tofacitinib group compared to control ($p<0.05$).

Trm cells expressing IL-15-receptors accumulate in the skin following inflammation. Inhibition of the IL-15-receptor with topical tofacitinib during disease quiescence reduces skin inflammation that correlates with reduction of Trm cells expressing IL-15-receptors. This ruther underscores the need for more targeted IL-15-receptor inhibitors to maintain long-term remission of inflammatory skin diseases.

Category: (2) Early experiments with well-defined objectives/hypotheses

**Poster 5**

# VIEWS OF TELEDERMATOLOGY AMONGST DERMATOLOGISTS AND DERMATOLOGY RESIDENTS IN BRITISH COLUMBIA – A QUALITATIVE STUDY

Kaitlyn Lam[1], Clifford Neil Kitson[1]

[1]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

BACKGROUND: There has been rapid global growth in demand and use of teledermatology as a model of care delivery, mainly due to the COVID-19 pandemic. This delivery method has the capacity to reduce wait times, enable dermatology care in rural and remote communities, and provide education for referring doctors. Despite this demand and potential, there seems little enthusiasm for this form of practice among dermatologists, even though several platforms and established services are available for use.

OBJECTIVE: To explore the views, usage, and experiences with teledermatology amongst dermatologists and dermatology residents in British Columbia.

PROPOSED METHODS: We will conduct an anonymous online survey of dermatologists and dermatology residents to gather their opinions of the challenges and benefits of teledermatology, as well as their experiences with using such services in their practice. Data will be compiled and thematically analyzed. The insights gathered from this study will aid our understanding of the potential barriers to adopting this model of care as well as opportunities for improvement and future development of teledermatology services.

Category: Exploratory

**Poster 6**

# INVESTIGATION OF THE MICROBIOME IN SCALP BIOPSIES OF DIFFERENT FORMS OF ALOPECIA

Navid Zahedi Niaki[1], Toby Schmitt[1], Richard I. Crawford[1]

[1] University of British Columbia, Department of Dermatology and Skin Science

It is thought that the scalp microbiome may play a role in hair loss through several mechanisms including collapse of immune privilege and perpetuating a pro-inflammatory environment.1,2 Micro-inflammation has been found around the infundibulum where a great number of microorganisms reside.1 So far, swabs have served as the most common method for scalp microbiome analyses whilst studies on the deeper portions of the scalp remain scarce.3,4,5

This exploratory retrospective cohort study aims to investigate microbial community composition in scalp biopsies of different types of alopecia. Morphologic observation of microorganisms has been conducted retrospectively on biopsy specimens obtained from the Vancouver General Hospital pathology laboratory. Demodex, Malassezia, Staphylococcus aureus, and diphtheroids have been assessed on samples stained with hematoxylin and eosin and periodic acid–Schiff-diastase. The primary outcome is to assess whether different types of alopecia present with distinctive proportions of commonly seen organisms.

So far, preliminary assessment has been performed on 20 patient biopsies with male pattern hair loss (MPHL, n=5), female pattern hair loss (FPHL, n=5), and alopecia areata (AA, n=10). The proportion of FPHL patients with demodex is 3-fold higher when compared to the AA group. Meanwhile, all patients with MPHL demonstrate abundant diphtheroids as compared to 40% in the AA group. The variation between groups is not as marked when assessing for Malassezia. Results so far indicate distinct proportions of several organisms in these alopecia types. Better characterizing scalp dysbiosis in different forms of alopecia has potential utility to improve management of these conditions.

Category: pilot/exploratory experiments (for study design, hypotheses creation, etc.)

**Poster 7**

# THE PRESENTATION OF ANXIETY AND DEPRESSION AMONG CHILDREN AND YOUTH DIAGNOSED WITH HIDRADENITIS SUPPURATIVA

Delaram Shojaei,[1], Harry Liu[2], Joseph Lam[3]

[1] Faculty of Medicine, University of British Columbia, Vancouver, BC
[2] Department of Dermatology and Skin Science, University of British Columbia, Vancouver, BC
[3] Department of Pediatrics, University of British Columbia, Vancouver, BC

Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition with painful lesions in friction-prone areas, impacting patients' physical and mental well-being. Adults with HS experience higher rates of depression, anxiety, and reduced quality of life. Children with HS may also face these challenges, but a comprehensive review of their mental health implications is lacking. A narrative review was conducted using PubMed and Ovid Medline databases to investigate the association between HS and anxiety or depression in pediatric populations. A total of 4498 pediatric patients from six studies were included in this study: six examined depression alone, and three also studied anxiety. Two studies found a significant correlation between HS and depression in pediatric patients ($p < .001$), while two reported statistical significance for anxiety ($p < .001$). Two studies comparing pediatric and adult populations also reported a higher prevalence and incidence of depression among pediatric populations ($p < .05$). Another study found no incidences of depression or anxiety in HS or control patients. Despite heterogeneity in control groups, methodologies, and health system databases, the included studies suggest that pediatric patients with HS have a higher likelihood of developing depression compared to healthy pediatric patients and exhibit higher depression rates and lower anxiety rates compared to adults. These findings and the limited availability of data regarding this topic underscore the imperative for increased screening, evaluation, and reporting of psychiatric disorders among pediatric populations. This can help understand the connection between HS and depression or anxiety and ultimately enhance the mental well-being and quality of life for affected children.

Category: Early experiments with well-defined objectives/hypotheses

**Poster 8**

# THE EFFECT OF VIDEO EDUCATION ON MANAGEMENT OF PSORIASIS ON FAMILY MEDICINE PHYSICIANS' AND RESIDENTS' SELF-PERCEIVED KNOWLEDGE AND CONFIDENCE

Seiwon Park[1], Sharon Kipfer[1], Harry Liu[1], Neil Kitson[1]

[1]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada

There can be challenges accessing timely dermatological patient care for Canadians, particularly in rural areas. Telehealth has become a method for mainly general practitioners in rural areas to virtually consult dermatologists in British Columbia (BC). There is an opportunity to streamline and standardize this consulting process by creating an educational resource such as an educational video, which can be a powerful tool for enhancing medical knowledge. Psoriasis was selected as the topic as it can be a commonly encountered dermatological condition in Canada.

To create an educational video on management of psoriasis and evaluate its effect on family medicine residents' and rural general practitioners' self-perceived knowledge and confidence through a pre- and post- survey.

Participants will be rural general practitioners and family medicine residents at UBC. Participants will be asked to watch a 10-minute video and complete an anonymous 1-time survey with questions on demographics, and grading themselves on a Likert scale of one (strongly disagree) to five (strongly agree) on their self-perceived knowledge and confidence on management of psoriasis, before and after the video. The video was created by dermatology residents and a dermatologist. We will calculate the mean differences in the pre-and post survey values and standard deviations. A value $<.05$ is considered statistically significant.

This research study is ongoing and we aim to shed light on the effect of dermatological educational videos on self-perceived knowledge and confidence and its potential role in facilitating telehealth in rural BC.

Category: Pilot/exploratory experiments (for study design, hypotheses creation, etc.)

**Poster 9**

# RATIONALE FOR REFUSAL OF PREOPERATIVE ANXIETY REDUCING MEDICATIONS IN PATIENTS UNDERGOING MOHS MICROGRAPHIC SURGERY

Curtis Lockhart, David M. Zloty

Department of Dermatology and Skin Science, UBC, Vancouver, British Columbia, Canada

Patient anxiety contributes to surgical complications and reduces patient satisfaction. Preoperative anxiolytic use can help alleviate these challenges, however, there are numerous reasons for patient refusal of these potentially beneficial medications.

To identify common reasons for refusal of anxiolytic agents by patients.

A prospective, questionnaire-based study was performed in 50 patients that self-identified as being anxious who refused anxiolytic agents for Mohs surgery. Initial and post-operative responses were recorded to identify if their perception towards the use of anxiolytic agents changed after initial refusal.

Preliminary analysis highlights multiple patient reasons for refusal of anxiolytic agents, with dislike of medication use and apprehension regarding the side-effects of the anxiolytics being the most prominent responses. Data analysis is currently in process.

Anxiolytic use has the potential for improvement of outcomes and overall patient experience in Mohs surgery. If we can better understand patient rationale behind the refusal of anxiolytics, these concerns may be addressed at the beginning of the procedure to provide thorough education for patients who may benefit from anxiolytic use.

Category: Applied/functional experiment (in vivo study).

**Poster 10**

**SUN PROTECTION PRACTICES AMONG SOUTH ASIANS IN BRITISH COLUMBIA**

Harman Toor, Tashmeeta Ahad.

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

Understanding sun protection practices among diverse populations is integral to establishing effective dermatology public health campaigns. Despite a sizeable population in British Columbia, there is a lack of research and understanding on the practices within the visible minority South Asian population living here. Our study investigates beliefs, attitudes, and behaviours regarding sun protection among this group through a cross-sectional survey. Eligible participants will be recruited through community engagement, community organizations, healthcare providers, and social media. Our survey questions have been finalized and the project is currently under UBC Behavioural Research Ethics Review.

This study aspires to contribute to Canadian Dermatology by enhancing our public health knowledge in a skin of colour group not otherwise studied. Data obtained can be used to compare findings in this group with other minority groups and the general population. Furthermore, this data can inform us and our associations on culturally sensitive and inclusive interventions to promote sun protection practices.

Category: (1) Pilot/exploratory experiments

**Poster 11**

**MEASURING DERMATOLOGY SERVICE ACCESSIBILITY IN BC FROM 2013-2017**

Mahan Maazi[1], Haitao Li[2], Neil Kitson[1,3].

[1]Faculty of Medicine, University of British Columbia, Vancouver, Canada.
[2]Faculty of Forestry, University of British Columbia, Vancouver, British Columbia, Canada
[3]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

One aim of the Canada Health Act is to ensure "reasonable access to health services without financial or other barriers". We are trying to measure such access for dermatology services in British Columbia (BC), in this case the impact of distance of cost of such travel. We used anonymized data from the BC Medical Services Commission for the years 2013-17 inclusive. These numbered over 200,000. A small minority were excluded because of ambiguity (e.g., the referring and consulting locations were the same). Our hypothesis is the physical distance between the dermatologist and the referring physician affects the rate of consultation. We analyzed the travel impedance to dermatologists using Geographic Information Systems (GIS) tools and modified the Gravity Model to evaluate the spatial accessibility to dermatologists in BC. This method allows for the integration and visualization of various datasets, including road, ferry, and airline networks available from provincial and federal sources. A preliminary estimate of travel costs will be included. We will present our preliminary findings and discuss potential use and limitations of our approach. We see this as the "historical control" for our experimental telemedicine service data, collected between May 1, 2020, and June 1, 2023. Our research goal is to improve patient care by creating a measure of access.

Category: Pilot/exploratory experiments (for study design, hypotheses creation, etc.)

**Poster 12**

# THE MEDICOLEGAL RISKS OF SKIN CANCER: AN ANALYSIS OF CANADIAN CLOSED MEDICOLEGAL DATA BETWEEN 2016 AND 2020

Jeffrey Toy 1, Yvonne Deng 2, Chaocheng Liu 1, Laura Payant 3, Richard Liu 3, Gary Garber 3,4,5, Tashmeeta Ahad1,6

1 Department of Dermatology and Skin Science, University of British Columbia, Vancouver, BC, Canada.
2 Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada.
3 Department of Safe Medical Care Research, Canadian Medical Protective Association, Ottawa, ON, Canada.
4 Department of Medicine, University of Toronto, Toronto, Ontario, Canada.
5 Department of Medicine, University of Ottawa, Ottawa, Ontario, Canada.
6 Photomedicine Institute, Vancouver Coastal Health Research Institute, Vancouver, BC, Canada

Little is known about the risk of medicolegal cases related to the diagnosis and management of skin cancer (SC) in Canada. Current literature on SC medicolegal risk is predominantly US-based. Understanding medicolegal risk is critical for identifying factors that compromise patient safety.

Medicolegal case data was extracted from the Canadian Medical Protective Association's (CMPA) national database. Cases (including civil-legal actions, regulatory authority cases, and complaints to hospitals) were included if closed between 01/01/2016-12/31/2020. Associated conditions included melanoma or other malignant neoplasm of the skin (coded with International Statistical Classification of Diseases 10th revision) as the presenting condition, diagnostic assumption, or complication.

Overall, 37,866 cases were closed over 5 years by the CMPA. Of these, 120 cases (<1%) involved SCs (49 melanomas; 63 keratinocyte carcinomas; 8 other SCs). The top three specialties involved were dermatology (28%), family medicine (28%) and plastic surgery (12%). Peer experts noted deficiencies in care in 95/120 SC cases, of which 62 (52%) involved diagnostic errors (misdiagnoses, missed or delayed diagnoses). Among these 62 cases, inadequate monitoring or follow-up, poor documentation, incomplete patient assessments, deviation from administrative procedures, and failure or delay in performing therapeutic or diagnostic interventions, were key contributing factors to diagnostic error and medicolegal risk.

Medicolegal risks in our case sample were mostly associated with inadequate clinical assessment, poor documentation, and shortcomings in continuity of care, including communicating results. Awareness of these issues can lead to improved workflow and patient follow-up which may reduce medicolegal risks and improve patient safety.

**Poster 13**

## CURRENT PRACTISES IN ADVISING HERPES ZOSTER AND HUMAN PAPILLOMAVIRUS VACCINES FOR RENAL TRANSPLANT CANDIDATES

Andrew McDermid[1], John Gill[2], Jagbir Gill[2], Tom Blydt-Hansen[3], Allison Mah[4], Hannah Mitchell[5], Alissa Wright[4], Matthew Kadatz[2] and Sheila Au[1]

1. Department of Dermatology and Skin Sciences, University of British Columbia, Vancouver, British Columbia, Canada
2. Department of Internal Medicine and Nephrology, University of British Columbia, Vancouver, British Columbia, Canada
3. Department of Pediatrics and Nephrology, University of British Columbia, Vancouver, British Columbia, Canada
4. Department of Internal Medicine and Infectious Diseases, University of British Columbia, Vancouver, British Columbia, Canada
5. Department of Pediatrics and Infectious Diseases, University of British Columbia, Vancouver, British Columbia, Canada

Solid organ transplant candidates are a unique population with end-stage organ disease and predictable anticipated lifelong immunosuppression. The candidacy period represents an opportunity to vaccinate patients prior to immunosuppression to elicit a more robust response to a given vaccine. Organ transplant recipients have a disproportionately high burden of infectious disease and associated conditions. Two important examples include Herpes zoster virus (Shingles), which is a common cause of long-term post herpetic neuralgia, and human papillomavirus (HPV) which has been implicated in numerous mucocutaneous malignancies. Safe and effective vaccines for HPV and Shingles are now available. These vaccines are not funded for organ transplant candidates in British Columbia. Our multidisciplinary research group sent a short survey to Canadian adult and pediatric renal transplant program directors with the goals of understanding current standards of practice and identifying barriers in delivery HPV and Shingles vaccine for transplant candidates. The 11 completed responses represent most major renal transplant programs in Canada. We found variability in practises recommending vaccination in terms of team members designated to offer advise, consistency of advising transplant candidates about vaccines and sources of expert body recommendations. Funding for these vaccines varies depending on the program. All groups felt new consensus guidelines would be helpful. Gaps and discrepancies identified in this study can be used to inform publications providing guidance for vaccination in transplant candidates and promote vaccine funding in transplant candidates.

Category: 1) Exploratory experiments

**Poster 14**

**ESTABLISHING CRITERIA FOR SELECTING VITILIGO IMAGES AND LESIONS FOR AI SEGMENTATION TRAINING**

Chloe Yue[1,2,3,4], Daniel C. Louie[1,3,4], Yuheng Wang[1,3,4], Thomas Zhang[1,3], Umar Ali[1,3,4,5], Andy Zhao[1,3,6], Sunil Kalia[1,3,4,7,8], Harvey Lui[1,3,4], Tim K. Lee[1,3,4,5]

[1]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada; [2]Department of Biology, University of British Columbia, Vancouver, Canada; [3]Photomedicine Institute, Vancouver Coastal Health Research Institute, Vancouver, Canada; [4]Departments of Cancer Control Research and Imaging Unit – Integrative Oncology Department, BC Cancer, Vancouver, Canada; [5]School of Biomedical Engineering, University of British Columbia, Vancouver, Canada; [6]Department of Computer Science, University of British Columbia , Vancouver, Canada; [7]BC Children's Hospital Research Institute, Vancouver, Canada; [8]Centre for Clinical Epidemiology and Evaluation, Vancouver Coastal Health Research Institute, Vancouver, Canada

Accurate identification of vitiligo lesions can streamline the process of diagnosing and tracking vitiligo progression. Currently, AI-based segmentation, a learn-by-example approach, achieves superior performance, out-performing other methods. To develop an AI-based segmentation for vitiligo, a set of examples must be carefully selected.

This study aims to establish criteria for building a training dataset for AI-based vitiligo segmentation.

41 clinical images of vitiligo patients of different body sites were analyzed. These images were manually segmented using the Pen tool from Adobe Photoshop 2023. The region of interest (ROI) and its corresponding lesions were annotated for each image. The original images and the segmented masks were reviewed by dermatologists, where criteria for lesion selection and segmentation were established.

Only images with vitiligo lesions were included in the training data to reduce noise and maintain focus on relevant features. Lighter pigmentation was a frequent cause for lesion misidentification, indicating that pigmentation alone is not sufficient to diagnose vitiligo. As body site and surrounding intensity can impact the appearance of vitiligo, segmented lesions within the ROI must also be easily identifiable and have distinguishable borders. Overall, 11 images were excluded from the dataset.

In creating an inclusion criterion for vitiligo segmentation, annotations become standardized and maintain a consistent accuracy and precision across the training dataset. This research will create a stronger definition of vitiligo lesions in images for AI segmentation models, and subsequently allow for more efficient diagnosis, objective assessment, and improved monitoring in vitiligo patients.

Category: Pilot/exploratory experiments (for study design, hypotheses creation, etc.)

**Poster 15**

# TREATMENT OPTIONS FOR KELOID AND HYPERTROPHIC SCARRING IN SKIN OF COLOR: A REVIEW

Monica K. Li[1], Zaini Sarwar[1]

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada

Keloids and hypertrophic scars are exuberant response to injury and are seen more often in patients with darkly pigmented skin. They can be itchy or painful and may negatively affect patients' quality of life due to functional impairment and cosmetic disfigurement. There are several treatment options available, but complications such as post-inflammatory hyper/hypopigmentation, further scarring, recurrence, and lack of research studies have restricted their application, particularly in patients with darker skin types. This review aims to provide an overview of different treatment options for keloid and hypertrophic scars to help clinicians understand the safety and efficacy of these treatment options. A literature search was conducted using Ovid Medline on various treatments of keloid and hypertrophic scarring in skin of color. The current evidence identifies multiple treatment options including intralesional injections, topical treatments, radiofrequency microneedling, radiotherapy, laser therapy and surgical excision. The intralesional options include corticosteroids, bleomycin, cryotherapy, and verapamil. The topical treatments include silicone sheets, corticosteroids, mitomycin, and topical onion extract including heparin and allantoin. The identified studies report that these treatment options have varying degrees of success and often combination therapy is needed to provide effective treatment. However, no studies offered direct comparisons of treatment options. Most studies are of a small sample size, lack a control group, and use a non-randomized study protocol, with varying assessment tools and satisfaction scores. This review highlights that more studies are needed to develop treatment protocols for the treatment of keloid and hypertrophic scars in patients with skin of color.

Category: Early experiments with well-defined objectives/hypothesis

**Poster 16**

**ASSESSING BARRIERS TO EMPOWERING PRIMARY CARE PHYSICIANS TO PROVIDE DERMATOLOGIC CARE OF STABLE LONGITUDINAL PATIENTS**

Rory Sutherland and Neil Kitson

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.

Access to dermatology care in most rural and remote communities remains difficult and family physicians (FPs) remain the basis of our care system. We plan to construct a cross-sectional survey of family physicians in rural British Columbia. Our qualitative questionnaire will elicit attitudes towards performing dermatology practice that could fall within the scope of FPs, and what factors contribute to comfort performing those versus referring to dermatology. Prior studies have shown noteworthy patterns of barriers to use of medications such as isotretinoin within other healthcare systems, such as the United Kingdom. Some of those included lack of awareness that family doctors could prescribe isotretinoin or unfamiliarity with managing and monitoring its use, but the majority of FPs expressed interest in prescribing it. Methotrexate is a commonly used drug in dermatology and rheumatology practice. The present study aims to assess attitudes to the use of methotrexate among rural practitioners, including referral, starting the drug, adjusting the dose, and continued guidance from consultants. The questions will be formulated in collaboration with rural family practice colleagues to be collected from a statistically significant sample of the approximately 2,000 practitioners. The goal is to determine how methotrexate is currently used in rural areas and whether its use could be made more effective.

Category: Pilot/exploratory experiments

**Poster 17**

# WHAT IS THE PREFERRED FORM OF CASE-BASED DERMATOLOGIC MODULAR LEARNING AMONGST RURAL PRIMARY CARE PROVIDERS IN MANITOBA?

Jordan Cram[1], Shane Silver[2], Neil Kitson[1]

[1]Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada.
[2]Division of Dermatology and Department of Medicine, University of Manitoba, Winnipeg, Manitoba

Limited rural access to dermatologic care in Canada is primarily attributed to geographical constraints and an uneven distribution of health human resources. A 2014 national physician survey revealed that only 2% of dermatologists provided care in remote areas, despite 17.8% of Canada's population residing there. Teledermatology services by UBC offer specialist support to rural primary care physicians, facilitating direct interaction with dermatologists for patient diagnosis and management. We advocate expanding this model by providing supplemental learning materials to referring care providers at consultation, aiming to increase their proficiency in managing common skin diseases. By equipping rural practitioners with enhanced dermatologic knowledge and skills, this initiative not only improves patient care outcomes but also optimizes the utilization of limited healthcare resources in rural areas. We present our survey proposal to solicit constructive criticism and feedback, with the goal of implementing effective educational interventions to collaboratively support rural dermatologic care.

We seek to explore the most effective form of supplemental learning materials to be given to rural primary care providers at the time of teledermatology consultation.

The control group will consist of rural primary care providers who are currently practicing in Manitoba and are in good standing with the College of Physicians and Surgeons of Manitoba (CPSM.) An electronic survey will be administered using Qualtrics Online Survey Software to collect provider preferences regarding optimal form of modular learning. This data will be compiled and analyzed with the intention of then exploring optimal implementation.

Category**:** Pilot/exploratory experiments