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Case-Based
Peer Perspectives

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Vitiligo Care Personalized for Each Patient

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Vitiligo Care Personalized for Each Patient

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To better understand the complexities of treating a diverse range of patients with vitiligo, *Dermatology Times* gathered insights from 3 dermatologists: Rocco Serrao, MD, FAAD, of Dermatologists of Southwest Ohio in Dayton; Latanya Benjamin, MD, FAAD, dermatologist of Young Skin in Coral Springs, Florida; and Anthony Nuara, MD, PhD, of the Center for Dermatology & Plastic Surgery in Scottsdale, Arizona, who shared their experiences and patient cases in recent roundtable discussions. Their perspectives provide valuable insights into the challenges and advancements in managing vitiligo.

Explore opportunities to participate in future Case-Based Roundtable events by viewing the Events tab on DermatologyTimes.com.

Cover Image by Chrissy Bolton /MJH Life Sciences using AI

Opzelura®
(ruxolitinib) cream 1.5%

INDICATION

OPZELURA is indicated for the topical treatment of nonsegmental vitiligo in adult and pediatric patients 12 years of age and older.

Limitations of Use: Use of OPZELURA in combination with therapeutic biologics, other JAK inhibitors, or potent immunosuppressants such as azathioprine or cyclosporine is not recommended.

REPIGMENTATION REIMAGINED[1]

PROVEN TO HELP VITILIGO REPIGMENTATION[1]

FIRST & ONLY FDA-APPROVED TREATMENT.
—
IMAGINE THAT.

IMPORTANT SAFETY INFORMATION

SERIOUS INFECTIONS

Patients treated with oral Janus kinase inhibitors for inflammatory conditions are at risk for developing serious infections that may lead to hospitalization or death. Reported infections include:

- **Active tuberculosis, which may present with pulmonary or extrapulmonary disease.**
- **Invasive fungal infections, including cryptococcosis and pneumocystosis.**
- **Bacterial, viral, including herpes zoster, and other infections due to opportunistic pathogens.**

Avoid use of OPZELURA in patients with an active, serious infection, including localized infections. If a serious infection develops, interrupt OPZELURA until the infection is controlled. Carefully consider the benefits and risks of treatment prior to initiating OPZELURA in patients with chronic or recurrent infection. Closely monitor patients for the development of signs and symptoms of infection during and after treatment with OPZELURA.

Please see the Brief Summary of the Full Prescribing Information, including Boxed Warning, and Medication Guide on the last page.

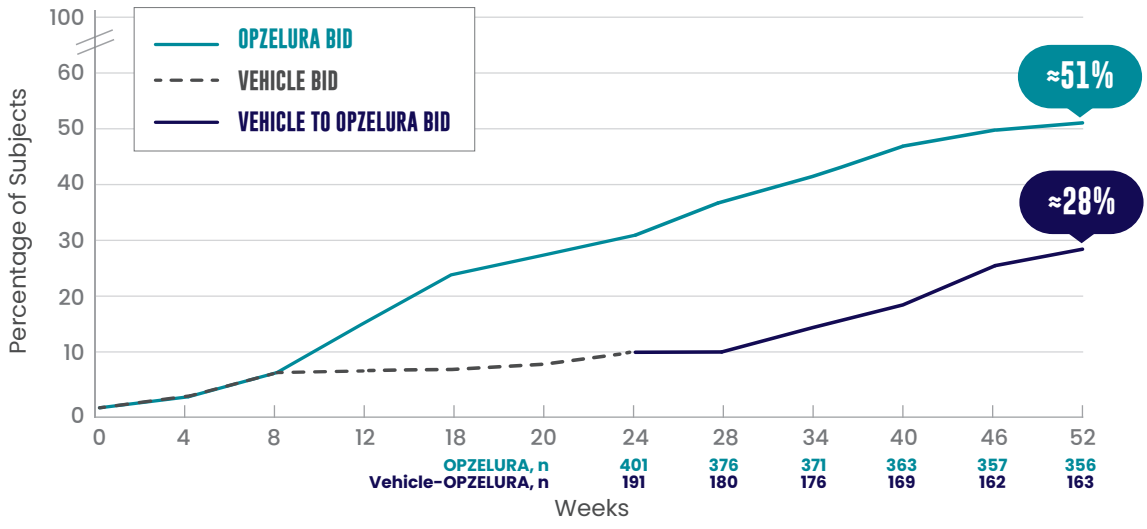
SHOWN TO HELP REPIGMENTATION OVER TIME[1]

F-VASI 75 AT 24 WEEKS

NEARLY 1 IN 3 PATIENTS ACHIEVED AT LEAST 75% IMPROVEMENT

in the facial vitiligo area scoring index* (F-VASI75) at 24 weeks (primary endpoint; 29.9% vs. 7.5% ($P < 0.0001$) and 29.9% vs. 12.9% ($P < 0.01$) in TRuE-V1 and TRuE-V2, respectively)[1-3†]

F-VASI75 results through Week 52 (TRuE-V1 and TRuE-V2 combined)[1,3]



OPZELURA was studied in 2 double-blind, randomized, vehicle-controlled trials of identical design that enrolled 674 adult and adolescent patients with nonsegmental vitiligo ≥12 years of age. Patients had depigmented areas affecting ≥0.5% facial body surface area (F-BSA), ≥3% nonfacial BSA, and total body vitiligo area (facial and nonfacial) of up to 10% BSA. Patients with complete leukotrichia within any facial lesion were excluded. Phototherapy was not permitted during the trials. In both trials, patients were randomized 2:1 to treatment with OPZELURA or vehicle cream twice daily (BID) for 24 weeks followed by a 28-week open-label extension, wherein patients originally assigned to vehicle could switch to OPZELURA.[1,4]

Limitations of an open-label extension: In an open-label extension there is a potential for enrichment of the long-term data in the remaining patient populations since patients who are unable to tolerate or do not respond to the drug often drop out.

- Extension data are as observed
- No conclusions of safety or efficacy should be made based on these results

*The facial vitiligo area scoring index (F-VASI) is a composite measurement of the overall area of facial vitiligo patches and degree of depigmentation within patches. As assessed, the face did not include surface area of the lips, scalp, or ears.[5]

†P-values from exact logistic regression: [response at Week 24 = treatment + stratification factors (Fitzpatrick skin type I and II vs. Fitzpatrick skin type III, IV, V, and VI, Region North America/Europe)].[3]

During the double-blind period (up to Week 24), multiple imputation was applied to account for missing values.[4]

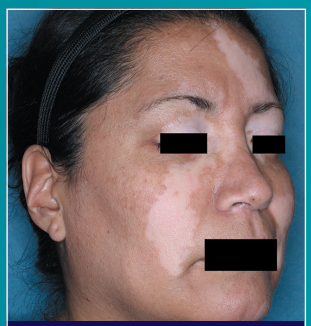
During the open-label extension (after Week 24), responses were reported as observed.[4]

IMPORTANT SAFETY INFORMATION (CONTINUED)

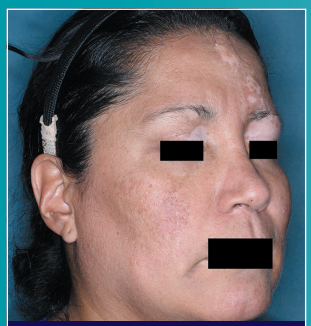
Serious lower respiratory tract infections were reported in the clinical development program with topical ruxolitinib.

No cases of active tuberculosis (TB) were reported in clinical trials with OPZELURA. Cases of active TB were reported in clinical trials of oral Janus kinase inhibitors used to treat inflammatory conditions. Consider evaluating patients for latent and active TB infection prior to administration of OPZELURA. During OPZELURA use, monitor patients for the development of signs and symptoms of TB.

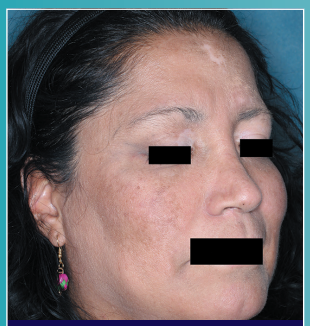
A CLINICAL TRIAL PARTICIPANT WHOSE REPIGMENTATION MET THE PRIMARY ENDPOINT OF F-VASI75 AT WEEK 24[3]



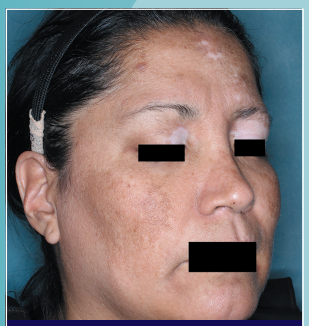
WEEK 0
F-VASI SCORE: 1.5



WEEK 12
F-VASI SCORE: 0.25



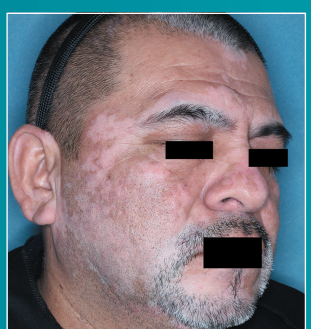
WEEK 24
F-VASI SCORE: 0.3
80% IMPROVEMENT FROM BASELINE.



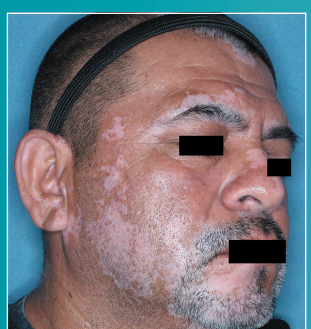
WEEK 52
F-VASI SCORE: 0.3
80% IMPROVEMENT FROM BASELINE.

Results not typical. Individual results may vary.

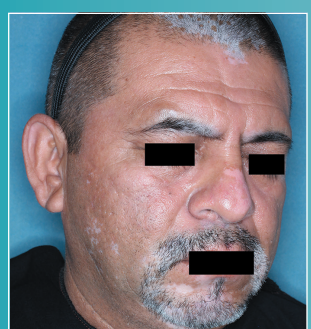
A CLINICAL TRIAL PARTICIPANT WHOSE REPIGMENTATION MET THE SECONDARY ENDPOINT OF F-VASI50 AT WEEK 24 AND ACHIEVED F-VASI75 AT WEEK 52[3]



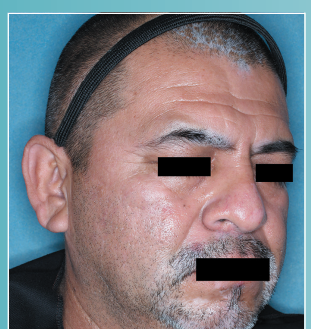
WEEK 0
F-VASI SCORE: 2.0



WEEK 12
F-VASI SCORE: 1.8



WEEK 24
F-VASI SCORE: 0.56
72% IMPROVEMENT FROM BASELINE.



WEEK 52
F-VASI SCORE: 0.21
90% IMPROVEMENT FROM BASELINE.

Results not typical. Individual results may vary.

Satisfactory patient response may require treatment with OPZELURA for more than 24 weeks. If the patient does not find the repigmentation meaningful by 24 weeks, the patient should be re-evaluated by the healthcare provider.[1]

SCAN HERE TO SEE THE RESULTS.

RE IMAGINE WITH OPZELURA

IMPORTANT SAFETY INFORMATION (CONTINUED)

Viral reactivation, including cases of herpes virus reactivation (e.g., herpes zoster), were reported in clinical trials with Janus kinase inhibitors used to treat inflammatory conditions including OPZELURA. If a patient develops herpes zoster, consider interrupting OPZELURA treatment until the episode resolves.

Hepatitis B viral load (HBV-DNA titer) increases, with or without associated elevations in alanine aminotransferase and aspartate aminotransferase, have been reported in patients with chronic HBV infections taking oral ruxolitinib. OPZELURA initiation is not recommended in patients with active hepatitis B or hepatitis C.

See Important Safety Information continued on the next page.

IMPORTANT SAFETY INFORMATION FOR OPZELURA® (RUXOLITINIB) CREAM 1.5% (CONTINUED)

MORTALITY

In a large, randomized, postmarketing safety study in rheumatoid arthritis (RA) patients 50 years of age and older with at least one cardiovascular risk factor comparing an oral JAK inhibitor to tumor necrosis factor (TNF) blocker treatment, a higher rate of all-cause mortality, including sudden cardiovascular death, was observed with the JAK inhibitor. Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA.

MALIGNANCIES

Malignancies were reported in patients treated with OPZELURA. Lymphoma and other malignancies have been observed in patients receiving JAK inhibitors used to treat inflammatory conditions. In RA patients treated with an oral JAK inhibitor, a higher rate of malignancies (excluding non-melanoma skin cancer (NMSC)) was observed when compared with TNF blockers. Patients who are current or past smokers are at additional increased risk.

Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA, particularly in patients with a known malignancy (other than successfully treated non-melanoma skin cancers), patients who develop a malignancy when on treatment, and patients who are current or past smokers.

Non-melanoma skin cancers, including basal cell and squamous cell carcinoma, have occurred in patients treated with OPZELURA. Perform periodic skin examinations during OPZELURA treatment and following treatment as appropriate. Exposure to sunlight and UV light should be limited by wearing protective clothing and using broad-spectrum sunscreen.

MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACE)

In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with an oral JAK inhibitor, a higher rate of major adverse cardiovascular events (MACE) (defined as cardiovascular death, myocardial infarction, and stroke), was observed when compared with TNF blockers. Patients who are current or past smokers are at additional increased risk. Discontinue OPZELURA in patients who have experienced a myocardial infarction or stroke.

Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA, particularly in patients who are current or past smokers and patients with other cardiovascular risk factors. Patients should be informed about the symptoms of serious cardiovascular events and the steps to take if they occur. Discontinue OPZELURA in patients that have experienced a myocardial infarction or stroke.

THROMBOSIS

Thromboembolic events were observed in trials with OPZELURA. Thrombosis, including pulmonary embolism (PE), deep venous thrombosis (DVT), and arterial thrombosis have been reported in patients receiving JAK inhibitors used to treat inflammatory conditions. Many of these adverse reactions were serious and some resulted in death. In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with an oral JAK inhibitor, a higher rate of thrombosis was observed when compared with TNF blockers. Avoid OPZELURA in patients at risk. If symptoms of thrombosis occur, discontinue OPZELURA and treat appropriately.

Thrombocytopenia, Anemia, and Neutropenia

Thrombocytopenia, anemia, and neutropenia were reported in the clinical trials with OPZELURA. Consider the benefits and risks for individual patients who have a known history of these events prior to initiating therapy with OPZELURA. Perform CBC monitoring as clinically indicated. If signs and/or symptoms of clinically significant thrombocytopenia, anemia, and neutropenia occur, patients should discontinue OPZELURA.

Lipid Elevations

Treatment with oral ruxolitinib has been associated with increases in lipid parameters including total cholesterol, low-density lipoprotein (LDL) cholesterol, and triglycerides.

Adverse Reactions

In nonsegmental vitiligo, the most common adverse reactions (incidence ≥1%) are application site acne (6%), application site pruritus (5%), nasopharyngitis (4%), headache (4%), urinary tract infection (2%), application site erythema (2%), and pyrexia (1%).

Pregnancy

There is a pregnancy registry that monitors pregnancy outcomes in pregnant persons exposed to OPZELURA during pregnancy. Pregnant persons exposed to OPZELURA and healthcare providers should report OPZELURA exposure by calling 1-855-463-3463.

Lactation

Advise women not to breastfeed during treatment with OPZELURA and for approximately four weeks after the last dose (approximately 5-6 elimination half-lives).

Please see the Brief Summary of the Full Prescribing Information, including Boxed Warning, and Medication Guide on the next page.

REFERENCES: 1. OPZELURA [Prescribing information]. Wilmington, DE: Incyte Corporation. **2.** Rosmarin D, Pandya AG, Grimes P, et al. Efficacy and safety of ruxolitinib cream for the treatment of vitiligo: 24-week results from 2 randomized double-blind phase 3 studies. Presented at the 30th European Academy of Dermatology and Venereology (EADV) Congress September 29-October 2, 2021; Virtual. **3.** Data on File. Incyte Corporation. **4.** Rosmarin D, Passeron T, Pandya AG, et al. Efficacy and safety of ruxolitinib cream monotherapy for the treatment of vitiligo: results from two 52 week phase 3 studies. Presented at the American Academy of Dermatology Annual Meeting; March 25–29, 2022; Boston, MA. **5.** Rosmarin D, Pandya AG, Lebwohl M, et al. Ruxolitinib cream for treatment of vitiligo: a randomised, controlled, phase 2 trial. *Lancet*. 2020;396(suppl):110-120. doi:10.1016/S0140-6736(20)30609-7

Incyte Dermatology

Opzelura®
(ruxolitinib) cream 1.5%

OPZELURA® (ruxolitinib) cream, for topical use

Brief Summary of FULL PRESCRIBING INFORMATION

INDICATIONS AND USAGE: OPZELURA is indicated for the topical treatment of nonsegmental vitiligo in adult and pediatric patients 12 years of age and older.

Limitations of Use: Use of OPZELURA in combination with therapeutic biologics, other JAK inhibitors, or potent immunosuppressants such as azathioprine or cyclosporine is not recommended.

WARNING: SERIOUS INFECTIONS, MORTALITY, MALIGNANCY, MAJOR ADVERSE CARDIOVASCULAR EVENTS, AND THROMBOSIS

SERIOUS INFECTIONS

Patients treated with oral Janus kinase inhibitors for inflammatory conditions are at risk for developing serious infections that may lead to hospitalization or death *[see Warnings and Precautions and Adverse Reactions].*

Reported infections include:

- **Active tuberculosis, which may present with pulmonary or extrapulmonary disease.**
- **Invasive fungal infections, including cryptococcosis, and pneumocystosis.**
- **Bacterial, viral, including herpes zoster, and other infections due to opportunistic pathogens.**

Avoid use of OPZELURA in patients with an active, serious infection, including localized infections. If a serious infection develops, interrupt OPZELURA until the infection is controlled.

The risks and benefits of treatment with OPZELURA should be carefully considered prior to initiating therapy in patients with chronic or recurrent infection.

Patients should be closely monitored for the development of signs and symptoms of infection during and after treatment with OPZELURA *[see Warnings and Precautions].*

MORTALITY

In a large, randomized, postmarketing safety study in rheumatoid arthritis (RA) patients 50 years of age and older with at least one cardiovascular risk factor comparing an oral JAK inhibitor to tumor necrosis factor (TNF) blocker treatment, a higher rate of all-cause mortality, including sudden cardiovascular death, was observed with the JAK inhibitor *[see Warnings and Precautions].*

MALIGNANCIES

Malignancies were reported in patients treated with OPZELURA. Lymphoma and other malignancies have been observed in patients receiving JAK inhibitors used to treat inflammatory conditions. In RA patients treated with an oral JAK inhibitor, a higher rate of malignancies (excluding non-melanoma skin cancer (NMSC)) was observed when compared with TNF blockers. Patients who are current or past smokers are at additional increased risk *[see Warnings and Precautions].*

MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACE)

In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with an oral JAK inhibitor, a higher rate of major adverse cardiovascular events (MACE) (defined as cardiovascular death, myocardial infarction, and stroke), was observed when compared with TNF blockers. Patients who are current or past smokers are at additional increased risk. Discontinue OPZELURA in patients who have experienced a myocardial infarction or stroke *[see Warnings and Precautions].*

THROMBOSIS

Thromboembolic events were observed in trials with OPZELURA. Thrombosis, including pulmonary embolism (PE), deep venous thrombosis (DVT), and arterial thrombosis have been reported in patients receiving JAK inhibitors used to treat inflammatory conditions. Many of these adverse reactions were serious and some resulted in death. In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with an oral JAK inhibitor, a higher rate of thrombosis was observed when compared with TNF blockers. Avoid OPZELURA in patients at risk. If symptoms of thrombosis occur, discontinue OPZELURA and treat appropriately *[see Warnings and Precautions].*

WARNINGS AND PRECAUTIONS

Serious Infections: Serious and sometimes fatal infections due to bacterial, mycobacterial, invasive fungal, viral, or other opportunistic pathogens have been reported in patients receiving oral Janus kinase inhibitors. Serious lower respiratory tract infections were reported in the clinical development program with topical ruxolitinib. Avoid use of OPZELURA in patients with an active, serious infection, including localized infections. Consider the risks and benefits of treatment prior to initiating OPZELURA in patients: with chronic or recurrent infection; with a history of a serious or an opportunistic infection; who have been exposed to tuberculosis; who have resided or traveled in areas of endemic tuberculosis or endemic mycoses; or with underlying conditions that may predispose them to infection. Closely monitor patients for the development of signs and symptoms of infection during and after treatment with OPZELURA. Interrupt OPZELURA if a patient develops a serious infection, an opportunistic infection, or sepsis. Do not resume OPZELURA until the infection is controlled.

Tuberculosis: No cases of active tuberculosis (TB) were reported in clinical trials with OPZELURA. Cases of active TB were reported in clinical trials of oral Janus kinase inhibitors used to treat inflammatory conditions. Consider evaluating patients for latent and active TB infection prior to administration of OPZELURA. During OPZELURA use, monitor patients for the development of signs and symptoms of TB.

Viral Reactivation: Viral reactivation, including cases of herpes virus reactivation (e.g., herpes zoster), were reported in clinical trials with Janus kinase inhibitors used to treat inflammatory conditions including OPZELURA. If a patient develops herpes zoster, consider interrupting OPZELURA treatment until the episode resolves.

Hepatitis B and C: The impact of Janus kinase inhibitors used to treat inflammatory conditions including OPZELURA on chronic viral hepatitis reactivation is unknown. Patients with a history of hepatitis B or C infection were excluded from clinical trials.

Hepatitis B viral load (HBV-DNA titer) increases, with or without associated elevations in alanine aminotransferase and aspartate aminotransferase, have been reported in patients with chronic HBV infections taking oral ruxolitinib. OPZELURA initiation is not recommended in patients with active hepatitis B or hepatitis C.

Mortality: In a large, randomized, postmarketing safety study of an oral JAK inhibitor in rheumatoid arthritis (RA) patients 50 years of age and older with at least one cardiovascular risk factor, a higher rate of all-cause mortality, including sudden cardiovascular death, was observed in patients treated with the JAK inhibitor compared with TNF blockers. Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA.

Malignancy and Lymphoproliferative Disorders: Malignancies, including lymphomas, were observed in clinical trials of oral JAK inhibitors used to treat inflammatory conditions. Patients who are current or past smokers are at additional increased risk. Malignancies, including lymphomas, have occurred in patients receiving JAK inhibitors used to treat inflammatory conditions. In a large, randomized, postmarketing safety study of an oral JAK inhibitor in RA patients, a higher rate of malignancies (excluding non-melanoma skin cancer) was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. A higher rate of lymphomas was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. A higher rate of lung cancers was observed in current or past smokers treated with the JAK inhibitor compared to those treated with TNF blockers. In this study, current or past smokers had an additional increased risk of overall malignancies. Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA, particularly in patients with a known malignancy (other than successfully treated non-melanoma skin cancers), patients who develop a malignancy when on treatment, and patients who are current or past smokers.

Non-melanoma Skin Cancers: Non-melanoma skin cancers including basal cell and squamous cell carcinoma have occurred in patients treated with OPZELURA. Perform periodic skin examinations during OPZELURA treatment and following treatment as appropriate. Exposure to sunlight and UV light should be limited by wearing protective clothing and using broad-spectrum sunscreen.

Major Adverse Cardiovascular Events (MACE): In a large, randomized, postmarketing safety study of an oral JAK inhibitor in RA patients 50 years of age and older with at least one cardiovascular risk factor, a higher rate of major adverse cardiovascular events (MACE) defined as cardiovascular death, non-fatal myocardial infarction (MI), and non-fatal stroke was observed with the JAK inhibitor compared to those treated with TNF blockers. Patients who are current or past smokers are at additional increased risk. Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with OPZELURA, particularly in patients who are current or past smokers and patients with other cardiovascular risk factors. Patients should be informed about the symptoms of serious cardiovascular events and the steps to take if they occur. Discontinue OPZELURA in patients that have experienced a myocardial infarction or stroke.

Thrombosis: Thromboembolic events were observed in clinical trials with OPZELURA. Thrombosis, including deep vein thrombosis (DVT), pulmonary embolism (PE), and arterial thrombosis have been reported in patients receiving JAK inhibitors used to treat inflammatory conditions. Many of these adverse reactions were serious and some resulted in death. In a large, randomized, postmarketing safety study of an oral JAK inhibitor in RA patients 50 years of age and older with at least one cardiovascular risk factor, higher rates of overall thrombosis, DVT, and PE were observed compared to those treated with TNF blockers. Avoid OPZELURA in patients who may be at increased risk of thrombosis. If symptoms of thrombosis occur, discontinue OPZELURA and evaluate and treat patients appropriately.

Thrombocytopenia, Anemia, and Neutropenia: Thrombocytopenia, anemia, and neutropenia were reported in the clinical trials with OPZELURA. Consider the benefits and risks for individual patients who have a known history of these events prior to initiating therapy with OPZELURA. Perform CBC monitoring as clinically indicated. If signs and/or symptoms of clinically significant thrombocytopenia, anemia, and neutropenia occur, patients should discontinue OPZELURA.

Lipid Elevations: Treatment with oral ruxolitinib has been associated with increases in lipid parameters including total cholesterol, low-density lipoprotein (LDL) cholesterol, and triglycerides.

ADVERSE REACTIONS

Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. In two double-blind, vehicle-controlled clinical trials (TRuE-V1 and TRuE-V2), 449 adult and pediatric subjects 12 years of age and older with nonsegmental vitiligo were treated with OPZELURA twice daily for 24 weeks. In the OPZELURA group, 55% of subjects were females, and 81% of subjects were White, 5% were Black, and 4% were Asian. The adverse reactions reported by OPZELURA treated subjects with an incidence of ≥ 1% and at least 1% greater incidence than in the vehicle arm in the 24-week double-blind period are as follows for OPZELURA (N=449) vs Vehicle (N=224), respectively: Subjects with any treatment emergent adverse event (TEAE) 214 (48%) vs 79 (35%), Application site acne 26 (6%) vs 2 (1%), Application site pruritus 23 (5%) vs 6 (3%), Nasopharyngitis 19 (4%) vs 5 (2%), Headache 17 (4%) vs 6 (3%), Urinary tract infection 7 (2%) vs 1 (<1%), Application site erythema 7 (2%) vs 1 (<1%), and Pyrexia 6 (1%) vs 0 (0%).

Adverse reactions that occurred in TRuE-V1 and TRuE-V2 in ≥ 0.5% to < 1% of subjects in the OPZELURA group and none in the vehicle group were: application site dermatitis, hypertension, anxiety, application site discoloration, application site folliculitis, contusion, dermatitis contact, diarrhea, ear infection, gastritis, gastroenteritis, hordeolum, influenza-like illness, insomnia, nasal congestion, and vomiting.

DRUG INTERACTIONS

Drug interaction studies with OPZELURA have not been conducted. Ruxolitinib is known to be a substrate for cytochrome P450 3A4 (CYP3A4). Inhibitors of CYP3A4 may increase ruxolitinib systemic concentrations whereas inducers of CYP3A4 may decrease ruxolitinib systemic concentrations.

Strong Inhibitors of CYP3A4: Avoid concomitant use of OPZELURA with strong inhibitors of CYP3A4 as there is a potential to increase the systemic exposure of ruxolitinib and could increase the risk of OPZELURA adverse reactions.

USE IN SPECIFIC POPULATIONS

Pregnancy

Pregnancy Exposure Registry: There is a pregnancy registry that monitors pregnancy outcomes in pregnant persons exposed to OPZELURA during pregnancy. Pregnant persons exposed to OPZELURA and healthcare providers should report OPZELURA exposure by calling 1-855-463-3463.

Risk Summary: Available data from pregnancies reported in clinical trials with OPZELURA are not sufficient to evaluate a drug-associated risk for major birth defects, miscarriage, or other adverse maternal or fetal outcomes. In animal reproduction studies, oral administration of ruxolitinib to pregnant rats and rabbits during the period of organogenesis resulted in adverse developmental outcomes at doses associated with maternal toxicity.

The background risks of major birth defects and miscarriage for the indicated populations are unknown. All pregnancies carry some risk of birth defects, loss, or other adverse outcomes. The background risk in the U.S. general population of major birth defects and miscarriage is 2-4% and 15-20%, respectively.

Data

Animal Data: Ruxolitinib was administered orally to pregnant rats or rabbits during the period of organogenesis, at doses of 15, 30, or 60 mg/kg/day in rats and 10, 30, or 60 mg/kg/day in rabbits. There were no treatment-related malformations at any dose. A decrease in fetal weight of approximately 9% was noted in rats at the highest and maternally toxic dose of 60 mg/kg/day. This dose resulted in systemic exposure approximately 22 times the clinical systemic exposure at the maximum recommended human dose (MRHD; the clinical systemic exposure from ruxolitinib cream, 1.5% applied twice daily to 25-40% atopic dermatitis-affected body surface area is used for calculation of multiples of human exposure). In rabbits, lower fetal weights of approximately 8% and increased late resorptions were noted at the highest and maternally toxic dose of 60 mg/kg/day. This dose resulted in systemic exposure approximately 70% the MRHD clinical systemic exposure. In a pre-and post-natal development study in rats, pregnant animals were dosed with ruxolitinib from implantation through lactation at doses up to 30 mg/kg/day. There were no drug-related adverse effects on embryofetal survival, postnatal growth, development parameters or offspring reproductive function at the highest dose evaluated (3.1 times the MRHD clinical systemic exposure).

Lactation

Risk Summary: There are no data on the presence of ruxolitinib in human milk, the effects on the breastfed child, or the effects on milk production. Ruxolitinib was present in the milk of lactating rats. When a drug is present in animal milk, it is likely that the drug will be present in human milk. Because of the serious adverse findings in adults, including risks of serious infections, thrombocytopenia, anemia, and neutropenia, advise women not to breastfeed during treatment with OPZELURA and for approximately four weeks after the last dose (approximately 5-6 elimination half-lives).

Data: Lactating rats were administered a single dose of [14C]-labeled ruxolitinib (30 mg/kg) on postnatal Day 10, after which plasma and milk samples were collected for up to 24 hours. The AUC for total radioactivity in milk was approximately 13 times the maternal plasma AUC. Additional analysis showed the presence of ruxolitinib and several of its metabolites in milk, all at levels higher than those in maternal plasma.

Pediatric Use: Nonsegmental Vitiligo: The safety and effectiveness of OPZELURA for the topical treatment of nonsegmental vitiligo have been established in pediatric patients aged 12 to 17 years of age. Use of OPZELURA in this age group is supported by evidence from TRuE-V1 and TRuE-V2, which included 55 pediatric subjects aged 12 to 17 years with nonsegmental vitiligo. No clinically meaningful differences in safety or effectiveness were observed between adult and pediatric subjects. The safety and effectiveness of OPZELURA in pediatric patients younger than 12 years of age with nonsegmental vitiligo have not been established.

Juvenile Animal Toxicity Data: Oral administration of ruxolitinib to juvenile rats resulted in effects on growth and bone measures. When administered starting at postnatal day 7 (the equivalent of a human newborn) at doses of 1.5 to 75 mg/kg/day, evidence of fractures occurred at doses ≥ 30 mg/kg/day, and effects on body weight and other bone measures [e.g., bone mineral content, peripheral quantitative computed tomography, and x-ray analysis] occurred at doses ≥ 5 mg/kg/day. When administered starting at postnatal day 21 (the equivalent of a human 2-3 years of age) at doses of 5 to 60 mg/kg/day, effects on body weight and bone occurred at doses ≥ 15 mg/kg/day, which were considered adverse at 60 mg/kg/day. Males were more severely affected than females in all age groups, and effects were generally more severe when administration was initiated earlier in the postnatal period. These findings were observed at systemic exposures that are at least 40% the MRHD clinical systemic exposure.

Geriatric Use: Of the 831 total subjects enrolled with nonsegmental vitiligo in clinical trials with OPZELURA, 65 (8%) were 65 years of age and older. Clinical trials of OPZELURA in subjects with nonsegmental vitiligo did not include sufficient numbers of subjects 65 years of age and older to determine whether they respond differently from younger adult subjects.

PATIENT COUNSELING INFORMATION

Advise the patient or caregivers to read the FDA-approved patient labeling (Medication Guide).

Infections: Inform patients that they may be at increased risk for developing infections, including serious infections, when taking Janus kinase inhibitors. Instruct patients to tell their healthcare provider if they develop any signs or symptoms of an infection. Advise patients that Janus kinase inhibitors increase the risk of herpes zoster, and some cases can be serious *[see Warnings and Precautions]*.

Malignancies and Lymphoproliferative Disorders: Inform patients that Janus kinase inhibitors may increase the risk for developing lymphomas and other malignancies including skin cancer. Instruct patients to inform their health care provider if they have ever had any type of cancer. Inform patients that periodic skin examinations should be performed while using OPZELURA. Advise patients that exposure to sunlight, and UV light should be limited by wearing protective clothing and using a broad-spectrum sunscreen *[see Warnings and Precautions]*.

Major Adverse Cardiovascular Events: Advise patients that events of major adverse cardiovascular events (MACE) including non-fatal myocardial infarction, non-fatal stroke, and cardiovascular death, have been reported in clinical studies with Janus kinase inhibitors used to treat inflammatory conditions. Instruct all patients, especially current or past smokers or patients with other cardiovascular risk factors, to be alert for the development of signs and symptoms of cardiovascular events *[see Warnings and Precautions]*.

Thrombosis: Advise patients that events of DVT and PE have been reported in clinical studies with Janus kinase inhibitors used to treat inflammatory conditions. Instruct patients to tell their healthcare provider if they develop any signs or symptoms of a DVT or PE *[see Warnings and Precautions]*.

Thrombocytopenia, Anemia, and Neutropenia: Advise patients of the risk of thrombocytopenia, anemia, and neutropenia with OPZELURA. Instruct patients to tell their healthcare provider if they develop any signs or symptoms of thrombocytopenia, anemia, or neutropenia *[see Warnings and Precautions]*.

Administration Instructions: Advise patients or caregivers that OPZELURA is for topical use only *[see Dosage and Administration]*.

Advise patients to limit treatment to one 60 gram tube per week or one 100 gram tube per 2 weeks *[see Dosage and Administration]*.

Pregnancy: Inform patients to report their pregnancy to Incyte Corporation at 1-855-463-3463 *[see Use in Specific Populations]*.

Lactation: Advise a patient not to breastfeed during treatment with OPZELURA and for about four weeks after the last dose *[see Use in Specific Populations]*.

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The Psychological Impact of Vitiligo

Serrao's Perspective

Serrao initiated his discussion in Cleveland, Ohio, by emphasizing the importance of understanding the impact vitiligo has on patients. "With 0.5% to up to 2% of the population having vitiligo, it's absolutely essential for clinicians to understand that we're going to see individuals with this condition," he said.[1] Serrao highlighted the varying degrees of psychological and social impacts vitiligo can have on patients, depending on their skin tone and personal circumstances.

CASE STUDY: A Collegiate Athlete's Struggle

Serrao shared a case of a 20-year-old man who is a collegiate athlete with segmental vitiligo. "He recently noticed these white patches on the right side of his face, and his brow was also turning white. He was very embarrassed by the appearance, affecting his self-confidence and interpersonal relationships," Serrao recounted. This patient had not tried any treatments yet, highlighting a common issue—lack of awareness and access to effective therapies.

"Up to 60% of people with vitiligo believe there are no treatments available, which leads to a loss of hope. This is often due to health care providers not being aware of the therapies that are available," Serrao said. This lack of awareness among both patients and providers can hinder effective management of the condition.

Personalized Treatment Plans

Serrao emphasized the need for personalized treatment plans. He explained the approaches for segmental and non-segmental vitiligo, stressing the importance of patient-specific strategies. "We need to sit down and have a discussion with each individual to understand how the disease is affecting them because it can affect everyone differently," he advised. This individualized approach is crucial for achieving the best outcomes for patients.

Serrao also provided insights on the role of phototherapy, a common treatment for vitiligo. "Narrowband UV-B phototherapy is often considered the gold standard for vitiligo treatment, especially for extensive disease. It can help repigment the skin over time, but it requires consistent and long-term commitment from the patient," he explained. He and the roundtable participants highlighted the importance of setting realistic expectations with patients regarding the duration and consistency of treatment.

Want to learn more from Serrao? Scan this QR code.

Managing Vitiligo in Pediatric and Adult Patients

Insights from Benjamin

Benjamin, a pediatric dermatologist, shared her insights in Parkland, Florida, on managing vitiligo in both pediatric and adult populations. She began by discussing a case of a 35-year-old White woman with a 10-year history of vitiligo and concomitant moderate atopic dermatitis. "This patient's depigmentation had spread to larger areas of her body, including the face, neck, and arms, and was significantly impacting her self-esteem," Benjamin said.

CASE STUDY: Managing Concomitant Conditions

Benjamin elaborated on the complexity of managing this patient's conditions. "This patient not only had extensive vitiligo but also struggled with moderate atopic dermatitis, which compounded her distress," she said. The presence of atopic dermatitis added another layer of complexity to her treatment plan. "We had to carefully balance treatments to manage both conditions effectively without exacerbating one or the other," Benjamin noted.

Benjamin discussed how she approached the treatment plan by incorporating therapies that could address both conditions. "We utilized a combination of topical corticosteroids and calcineurin inhibitors to manage her atopic dermatitis while incorporating phototherapy sessions to promote repigmentation of her vitiligo patches," she explained. The integration of these treatments required close monitoring and regular adjustments to ensure optimal outcomes.

Treatment Adherence and Patient Motivation

One of the key challenges in managing vitiligo, Benjamin highlighted, is treatment adherence. "We [roundtable participants] talked about how to keep our patients compliant and motivated when the treatment plan can work but may take months," she noted. Ensuring patients stay motivated throughout their treatment journey is critical for achieving positive outcomes.

Benjamin emphasized the importance of continuous treatment, citing the positive outcomes seen with ruxolitinib cream (Opzelura; Incyte) in clinical trials. "Continuous treatment is crucial, especially with therapies like ruxolitinib cream, which have shown significant improvements in clinical trials," she said.[2] Patient education and regular follow-ups are essential to maintaining treatment adherence.

Access to Treatments

Addressing the practical aspects of managing vitiligo, Benjamin discussed the role of access to treatments. "Access can be key as with our topical therapies. Utilizing specialty pharmacies to help

navigate the coverage process can be crucial," she said. The availability and accessibility of treatments can significantly impact the management of vitiligo, especially for patients with limited resources.

Benjamin also pointed out the advantages of newer therapies that are more tolerable for patients, particularly in sensitive areas like the face. "Newer therapies, like ruxolitinib cream, offer better tolerability, especially for sensitive areas such as the face, making them more suitable for long-term use," she explained. She and the roundtable participants discussed how advancements in treatment options provide hope for better management of vitiligo.

Interested in more clinical pearls from Benjamin? Scan this QR code.

Integrating New Therapies in Clinical Practice

Nuara's Experience

Nuara, who moderated a roundtable discussion in Scottsdale, Arizona, brought a unique perspective with his experience in treating adult patients with vitiligo. He shared the case of a 32-year-old professional makeup artist who was deeply concerned about her depigmented patches affecting her livelihood. "She came to us seeking treatment because she felt that her condition reflected on her professional skills," Nuara explained.

Case Study: A Professional Makeup Artist's Journey

Nuara discussed the initial steps in managing this patient's condition, emphasizing the importance of understanding her unique concerns and goals. "As a professional makeup artist, her appearance was integral to her career. She felt that the depigmented patches on her hands and face could undermine her credibility with clients," he said. This case highlights the profound impact vitiligo can have on patients' professional and personal lives.

Prior to visiting Nuara, the patient had been treated with the topical calcineurin inhibitor tacrolimus and a class I steroid for 6 months. However, she experienced minimal improvement and started noticing skin thinning in periocular areas. "The patient was not satisfied with her results and was concerned about the visible skin thinning," Nuara noted.

"One of the first steps we took was to conduct baseline labs to assess for comorbidities, such as thyroid disease and anemia," said Nuara. "Her thyroid function tests, including thyroid-stimulating hormone, thyroxine, thyroid peroxidase, and complete blood count, were all normal." To address her concerns, Nuara performed a comprehensive assessment, including baseline laboratory tests to check for comorbidities such as thyroid disease. "We conducted a thorough assessment to rule out any underlying conditions that could be contributing to her vitiligo. It's important to consider the whole patient, not just the skin manifestations," he emphasized.

Nuara developed a personalized treatment plan tailored to the patient's needs and lifestyle. "Given her profession, we focused on treatments that would be effective yet minimally disruptive to her daily routine," he explained. The treatment plan included a combination of topical corticosteroids and calcineurin inhibitors to manage inflammation and promote repigmentation.

In the roundtable discussion, the group considered the next steps for a patient who had failed initial topical treatments. "We discussed the use of phototherapy, specifically the excimer laser, as a viable next option," said Nuara. The patient underwent excimer laser treatments twice a week for 3 to 4 months.

"We also incorporated narrowband UV-B phototherapy sessions, which have been shown to be effective for vitiligo. This required careful scheduling to accommodate her work commitments," Nuara noted. The phototherapy sessions were initially set at 3 times a week, with frequency adjusted based on response.

Monitoring Progress and Making Adjustments

Regular follow-ups were essential to monitor the patient's progress and adjust the treatment plan as needed. "We scheduled follow-ups every 3 months to assess her response to treatment and make any necessary adjustments," Nuara said. This flexible approach ensured that the treatment remained effective and aligned with the patient's evolving needs.

The patient also received ruxolitinib cream. "Ruxolitinib cream was introduced as part of her treatment plan due to its efficacy and tolerability, especially for sensitive areas like the face and hands," Nuara explained. The cream was applied twice daily, and the patient was educated on its proper use to maximize benefits.

Connecting Patients to Support Groups

Nuara emphasized the importance of addressing the psychological and social aspects of vitiligo. "We provided resources for psychological support, including counseling services and support groups, to help her cope with the emotional impact of her condition," he said. This holistic approach aimed to improve the patient's overall well-being and quality of life.

He shared that the patient initially struggled with feelings of anxiety and self-consciousness. "She expressed concerns about how her clients and peers perceived her. We encouraged her to join a support group where she could connect with others facing similar challenges," Nuara recounted. This support network played a crucial role in boosting her confidence and resilience.

Ongoing Management With Positive Outcomes

Over the course of her treatment, the patient experienced significant improvements in her vitiligo. "After 6 months of consistent treatment, we observed notable repigmentation in the affected areas, and her atopic dermatitis was well controlled," Nuara reported. The patient was pleased with the results and felt more confident in her professional and personal life.

Nuara highlighted the importance of ongoing management and patient education. "We continued to monitor her progress and made adjustments to the treatment plan as needed. It's important to educate patients about the chronic nature of vitiligo and the need for continuous care," he advised.

Gain clinical insights from Nuara. Scan this QR code.

Managing Vitiligo in Diverse Patient Populations

Understanding the unique needs of different patient populations is crucial in managing vitiligo effectively. Dermatology clinicians must consider factors such as age, skin type, comorbidities, and psychological impact when developing treatment plans.

Pediatric Patients

Managing vitiligo in pediatric patients presents unique challenges. Benjamin emphasized the importance of involving both the child and their parents in the treatment process. "For children, it's crucial to ensure that both the child and their parents understand the treatment plan and its importance. Encouraging adherence through educational materials and regular follow-ups can help maintain treatment efficacy," she advised.

Benjamin shared a case of a 10-year-old girl with vitiligo who was struggling with low self-esteem due to her condition. "This young patient was very self-conscious about her appearance, especially in social settings. We involved her parents in the treatment plan and provided resources for them to help support their daughter emotionally," Benjamin recounted. This holistic approach helped improve the child's self-esteem and adherence to treatment.

Adult Patients With Comorbidities

Nuara highlighted the importance of addressing comorbidities in adult patients with vitiligo. "Comorbid conditions, such as thyroid disease or autoimmune disorders, are common in vitiligo patients and can affect treatment outcomes. Comprehensive baseline assessments and regular monitoring are essential," he explained.

He shared a case of a 45-year-old man with vitiligo and hypothyroidism. "Managing this patient required a multidisciplinary approach. We collaborated with his endocrinologist to ensure his thyroid condition was well controlled, which in turn helped improve the efficacy of his vitiligo treatment," Nuara noted.

Top 5 Key Takeaways and Future Directions

Here are some key takeaways from Benjamin, Serrao, and Nuara's discussions:

1. **Personalized Treatment Plans:** Understanding the unique impact of vitiligo on each patient is crucial for developing effective treatment strategies. Personalization is key to addressing the specific needs and concerns of patients.
2. **Patient Education and Motivation:** Continuous treatment and adherence are essential for positive outcomes. Educating patients about their condition and treatment options, and keeping them motivated, are critical components of successful management.
3. **Access to Treatments:** Ensuring that patients have access to effective therapies, including navigating insurance coverage and specialty pharmacies, is vital for managing vitiligo.
4. **Monitoring and Adjusting Treatments:** Regular monitoring and adjusting treatment plans based on patient response are necessary for sustained results. Flexibility in follow-up schedules and treatment modifications can improve patient outcomes.
5. **New Therapies and Advancements:** The introduction of new FDA-approved therapies, such as ruxolitinib cream, offers hope for better management of vitiligo. Staying informed about the latest advancements and incorporating them into clinical practice can enhance patient care.

The Importance of Continuous Learning and Collaboration

Serrao highlighted the need for health care providers to stay informed about available therapies. "It's essential for clinicians to stay updated on the latest treatments and advancements in vitiligo management to provide the best care for their patients," he emphasized. Benjamin stressed the role of patient support and community involvement. "Creating a supportive environment and connecting patients with support groups can significantly impact their treatment journey and overall well-being," she said. Building a strong support network can help patients cope with the psychological and social challenges of vitiligo. Nuara encouraged continuous research and innovation in the field. "Ongoing research and development of new therapies are crucial for advancing our understanding and treatment of vitiligo. We need to support and participate in clinical trials to bring more effective treatments to our patients," he concluded.

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