NEW DRUG APPROVAL

Brand Name	Vtama®
Generic Name	tapinarof
Drug Manufacturer	Dermavant Sciences, Inc.

New Drug Approval

FDA approval date: May 23, 2022

Review designation: Standard

Type of review: Type 1 - New Molecular Entity; New Drug Application (NDA): 215272

Dispensing restriction: N/A

Place in Therapy

DISEASE DESCRIPTION & EPIDEMIOLOGY

Psoriasis is a chronic, inflammatory, immune-mediated skin disease that primarily presents with well-demarcated, red plaques with a silvery scale. These plaques are a result of keratinocyte hyperproliferation and are most common on the scalp, elbows, knees, and lower back, though any area of the skin may be involved. The severity of psoriasis is categorized based on total body surface area (BSA), with <3% BSA being mild, 3%–10% moderate, and >10% severe, although it may also be considered severe when it results in serious emotional consequences, occurs in select locations (eg, hands, feet, scalp, face, genital area), or causes intractable pruritus.

Although psoriasis occurs worldwide, its prevalence varies considerably. In the USA, approximately 2% of the population is affected. High rates of psoriasis have been reported in people of the Faroe Islands, where one study found 2.8% of the population to be affected. The prevalence of psoriasis in the US is estimated at 3.4 million individuals (based on a 2020 systematic review).

Efficacy

Two multicenter, randomized, double-blind, vehicle-controlled trials were conducted to evaluate the safety and efficacy of Vtama® cream for the treatment of adults with plaque psoriasis (PSOARING 1 [NCT03956355] and PSOARING 2 [NCT03983980]). These trials were conducted in a total of 1025 subjects randomized 2:1 to Vtama® cream or vehicle cream applied once daily for 12 weeks to any lesion regardless of anatomic location.

Baseline disease severity was graded using the 5-point Physician's Global Assessment (PGA). The majority of subjects had "Moderate" disease (82%), while 10% had "Mild" disease, and 8% had "Severe" disease at baseline. The extent of disease involvement assessed by mean body surface area (BSA), excluding the scalp, palms, and soles, was 8% (range 3 to 20%). Subjects ranged in age from 18 to 75 years, with a median age of 51 years. Overall, 57% of the subjects were male and 85% were White.

The primary efficacy endpoint in both studies was the proportion of subjects who achieved treatment success, defined as a PGA score of "Clear" (0) or "Almost Clear" (1) and at least a 2-grade improvement from baseline. Efficacy results from the two trials are summarized in Table 1.

Following 12 weeks of treatment, 73 subjects randomized to Vtama® achieved complete disease clearance (PGA 0) and had Vtama® withdrawn. These subjects were followed for up to 40 additional weeks with a median time to first worsening (PGA ≥ 2 ["Mild"]) of 114 days (95% CI: 85, 142).

Table 1. Clinical response at week 12 in PSOARING 1 and PSOARING 2 in adults with Plaque psoriasis (Intent to treat; Multiple Myeloma)

	PSOARING 1		PSOARING 2	
Clinical Response	Vtama® Cream (N= 340)	Vehicle Cream (N= 170)	Vtama® Cream (N= 343)	Vehicle Cream (N= 172)
PGA treatment success[a]	36%	6%	40%	6%
Difference (95% CI)	29% (22%, 36%)		34% (27%, 41%)	

[a]Treatment success defined as a PGA score of "Clear" or "Almost clear" and at least a 2-grade improvement from baseline.

Safety

ADVERSE EVENTS

Two (0.3%) subjects using Vtama® cream developed urticaria. Adverse reactions leading to treatment discontinuation in >1% of subjects who received Vtama® cream were contact dermatitis (2.9%) and folliculitis (2.8%).

In an open label safety trial (PSOARING 3), 763 subjects were treated for up to an additional 40 weeks after completing PSOARING 1 or PSOARING 2. In addition to the adverse reactions reported in the 12-week PSOARING 1 and PSOARING 2 clinical trials, the following adverse reactions were reported: urticaria (1.0%) and drug eruption (0.7%).

WARNINGS & PRECAUTIONS

None reported

CONTRAINDICATIONS

None reported

Clinical Pharmacology

MECHANISMS OF ACTION

Tapinarof is an aryl hydrocarbon receptor (AhR) agonist. The specific mechanisms by which Vtama® cream exerts its therapeutic action in psoriasis patients are unknown.

Dose & Administration

ADULTS

Apply a thin layer of cream to affected areas once daily.

PEDIATRICS

None

GERIATRICS

Refer to adult dosing.

RENAL IMPAIRMENT

None

HEPATIC IMPAIRMENT

None

Product Availability

DOSAGE FORM(S) & STRENGTH(S)

Cream, 1%. Each gram of Vtama® cream contains 10 mg of tapinarof.