Drug Use Research & Management
Oregon State University College of Pharmacy

Abbreviated Drug Review

Trade Name (generic)	
EUCRISA (crisaborole) topical ointment	Indication not funded

Indications

- Topical treatment of mild to moderate atopic dermatitis (AD) in patients ≥2 years of age.

Dosage

- 2% (20 mg/gram) topical ointment
- Thin layer applied topically twice daily to affected areas (not for ophthalmic, oral, or intravaginal use)

Background

- Crisaborole is a new molecular entity that inhibits phosphodiesterase 4, resulting in increased intracellular cAMP levels. Its mechanism of action is not well defined.
- Other drug treatments for AD include topical corticosteroids and topical calcineurin inhibitors.

Efficacy

- In two identically designed, multicenter, double-blind, phase 3 studies (AD-301 and AD-302), 1522 United States patients 2 to 79 years old with mild to moderate AD were randomly assigned 2:1 to crisaborole or vehicle-control applied twice daily for 28 days.
- Baseline characteristics:
  - 86.3% were age 2 to 17 years, 56% were male, 61% were White, 28% were Black
  - Treatable body surface area was 5% to 95% (mean 18.3%)
  - 38.5% had an Investigator's Static Global Assessment (ISGA) score of 2 (indicating mild severity) and 61.5% had a score of 3 (indicating moderate severity)
- Primary end point was the proportion of patients with an ISGA score at day 29 of clear (0) or almost clear (1) skin with at least a 2-grade improvement from baseline:
  - Trial AD-301: 32.8% of crisaborole group (n=503) vs. 25.4% of vehicle group (n=256), p=0.038; NNT = 14
  - Trial AD-302: 31.4% of crisaborole group (n=513) vs. 18% of vehicle group (n=250), p<0.001; NNT = 8

Safety

- **Adverse reactions:** Application site pain (3%), contact urticarial (<1%)
- **Contraindications:** Known hypersensitivity
- **Warnings and precautions**: Hypersensitivity reactions

Evidence Gaps/Limitations

No studies found to support evidence for use in the treatment of Oregon Health Plan (OHP) funded conditions or co-morbidities.

Recommendation

Restrict use for OHP-funded conditions through Prior Authorization.

References

1. Eucrisa (crisaborole) [prescribing information]. Palo Alto, CA: Anacor Pharmaceuticals, Inc; December 2016.
2. Paller AS, Tom WL, Lebwohl MG, et al. Efficacy and safety of crisaborole ointment, a novel, nonsteroidal phosphodiesterase 4 (PDE4) inhibitor for the topical treatment of atopic dermatitis (AD) in children and adults. *Journal of the American Academy of Dermatology*. 2016;75(3):494-503.

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