

5.30.52

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<b>Section:</b>	Prescription Drugs	<b>Effective Date:</b>	April 1, 2021
<b>Subsection:</b>	Endocrine and Metabolic Drugs	<b>Original Policy Date:</b>	May 18, 2018
<b>Subject:</b>	Crysvita	<b>Page:</b>	1 of 5

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**Last Review Date:** March 12, 2021

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## Crysvita

### Description

#### Crysvita (burosumab-twza)

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#### Background

Crysvita (burosumab-twza) is a fibroblast growth factor 23 (FGF23) blocking antibody. X-linked hypophosphatemia is caused by excess fibroblast growth factor 23 which suppresses renal tubular phosphate reabsorption and the renal production of 1,25 dihydroxy vitamin D. Crysvita binds to and inhibits the biological activity of FGF23 restoring renal phosphate reabsorption and increasing the serum concentration of 1,25 dihydroxy vitamin D (1).

#### Regulatory Status

FDA approved indication: Crysvita is indicated for: (1)

1. The treatment of X-linked hypophosphatemia (XLH) in adult and pediatric patients 6 months of age and older.
2. The treatment of FGF23-related hypophosphatemia in tumor-induced osteomalacia (TIO) associated with phosphaturic mesenchymal tumors that cannot be curatively resected or localized in adult and pediatric patients 2 years of age and older.

Crysvita is contraindicated for patients with severe renal impairment or end stage renal disease because these conditions are associated with abnormal mineral metabolism. It is also contraindicated if serum phosphorus is within or above the normal range for the patient's age, and should not be used with oral phosphate or active vitamin D analogs. Oral phosphate and active vitamin D analogs should be discontinued one week prior to initiation of treatment (1).

# 5.30.52

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<b>Subsection:</b>	Endocrine and Metabolic Drugs	<b>Original Policy Date:</b>	May 18, 2018
<b>Subject:</b>	Crysvita	<b>Page:</b>	2 of 5

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Pediatric Patients with X-linked Hypophosphatemia (6 months to less than 18 years of age): After initiation of treatment, fasting serum phosphorus should be measured every four weeks for the first three months of treatment, and thereafter as appropriate (1).

Adult Patients with X-linked Hypophosphatemia (18 years of age and older): After initiation of treatment, assess fasting serum phosphorus on a monthly basis, measured two weeks post-dose, for the first three months of treatment, and thereafter as appropriate (1).

Pediatric Patients with Tumor-induced Osteomalacia (2 years to less than 18 years of age): After initiation of treatment, assess fasting serum phosphorous on a monthly basis, measured 2 weeks post-dose, for the first 3 months of treatment, and thereafter as appropriate (1).

Adult Patients with Tumor-induced Osteomalacia (18 years of age or older): After initiation of treatment, assess fasting serum phosphorous on a monthly basis, measured 2 weeks post-dose, for the first 3 months of treatment, and thereafter as appropriate (1).

The safety and effectiveness for Crysvita in pediatric patients with XLH less than 6 years of age have not been established. The safety and effectiveness for Crysvita in pediatric patients with TIO less than 2 years of age have not been established (1).

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## Related policies

### Policy

*This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.*

Crysvita may be considered **medically necessary** in patients with X-linked hypophosphatemia (XLH) or FGF-23 related hypophosphatemia in tumor-induced osteomalacia (TIO); and if the conditions indicated below are met.

Crysvita may be considered **investigational** for all other indications.

## Prior-Approval Requirements

### Diagnoses

<b>Section:</b>	Prescription Drugs	<b>Effective Date:</b>	April 1, 2021
<b>Subsection:</b>	Endocrine and Metabolic Drugs	<b>Original Policy Date:</b>	May 18, 2018
<b>Subject:</b>	Crysvita	<b>Page:</b>	3 of 5

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Patient must have **ONE** of the following:

1. X-linked hypophosphatemia (XLH) (also called X-linked dominant hypophosphatemic rickets, X-linked vitamin D-resistant rickets)
  - a. 6 months of age or older
  - b. Confirmed diagnosis by genetic testing of PHEX (phosphate regulating gene with homology to endopeptidases located on the X chromosome) mutation in the patient
2. FGF23-related hypophosphatemia in tumor-induced osteomalacia (TIO)
  - a. 2 years of age or older
  - b. Associated with phosphaturic mesenchymal tumors that cannot be curatively resected or localized

**AND ALL** of the following:

1. Patient will discontinue any oral phosphate or active vitamin D analog supplementation at least one week prior to starting therapy with Crysvita
2. Prescriber agrees to measure serum phosphorous throughout therapy and withhold medication when serum phosphorus is above the reference range for age
3. Administered by a healthcare provider

**AND NONE** of the following:

1. Fasting serum phosphorus is within or above the normal range for age
2. Severe renal impairment or end stage renal disease (ESRD), defined as eGFR < 30 mL/min/1.73 m<sup>2</sup>

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## **Prior-Approval *Renewal* Requirements**

### **Diagnoses**

Patient must have **ONE** of the following:

1. X-linked hypophosphatemia (XLH) (also called X-linked dominant hypophosphatemic rickets, X-linked vitamin D-resistant rickets)
  - a. 6 months of age or older
2. FGF23-related hypophosphatemia in tumor-induced osteomalacia (TIO)

# 5.30.52

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<b>Section:</b>	Prescription Drugs	<b>Effective Date:</b>	April 1, 2021
<b>Subsection:</b>	Endocrine and Metabolic Drugs	<b>Original Policy Date:</b>	May 18, 2018
<b>Subject:</b>	Crysvita	<b>Page:</b>	4 of 5

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- a. 2 years of age or older

**AND** the following:

1. Prescriber agrees to measure serum phosphorous throughout therapy and withhold medication when serum phosphorus is above the reference range for age
2. Administered by a healthcare provider

**AND NONE** of the following:

1. Severe renal impairment or end stage renal disease (ESRD), defined as eGFR < 30 mL/min/1.73 m<sup>2</sup>

## Policy Guidelines

### Pre-PA Allowance

None

### Prior-Approval Limits

**Duration** 12 Months

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### Prior-Approval *Renewal* Limits

Same as above

## Rationale

### Summary

Crysvita (burosumab-twza) is a fibroblast growth factor 23 (FGF23) blocking antibody. X-linked hypophosphatemia is caused by excess fibroblast growth factor 23 which suppresses renal tubular phosphate reabsorption and the renal production of 1,25 dihydroxy vitamin D. Crysvita binds to and inhibits the biological activity of FGF23 restoring renal phosphate reabsorption and increasing the serum concentration of 1,25 dihydroxy vitamin D (1).

Prior approval is required to ensure the safe, clinically appropriate and cost-effective use of Crysvita while maintaining optimal therapeutic outcomes.

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<b>Section:</b>	Prescription Drugs	<b>Effective Date:</b>	April 1, 2021
<b>Subsection:</b>	Endocrine and Metabolic Drugs	<b>Original Policy Date:</b>	May 18, 2018
<b>Subject:</b>	Crysvita	<b>Page:</b>	5 of 5

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## References

1. Crysvita [package insert]. Novato, CA: Ultragenyx Pharmaceuticals, Inc.; June 2020.

## Policy History

Date	Action
May 2018	Addition to PA
June 2018	Annual editorial review Addition of a requirement: Confirmed diagnosis by genetic testing of PHEX (phosphate regulating gene with homology to endopeptidases located on the X chromosome) mutation in the patient; and administered by healthcare provider per SME
October 2019	Age requirement reduced to 6 months and older from 1 year and older
December 2019	Annual review
July 2020	Addition of indication: FGF23-related hypophosphatemia in tumor-induced osteomalacia (TIO). Revised requirement to “withhold medication when serum phosphorus is above the reference range for age”
September 2020	Annual review
March 2021	Annual editorial review

## Keywords

**This policy was approved by the FEP® Pharmacy and Medical Policy Committee on March 12, 2021 and is effective on April 1, 2021.**