

# Advanced Therapy In Rheumatology



**Presented by:**  
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**MSL**  
**December 2025**



# **Rheumatology**

## **Medications**

# PART 01

## A brief of CinnoRA®





Generic Name:  
Adalimumab

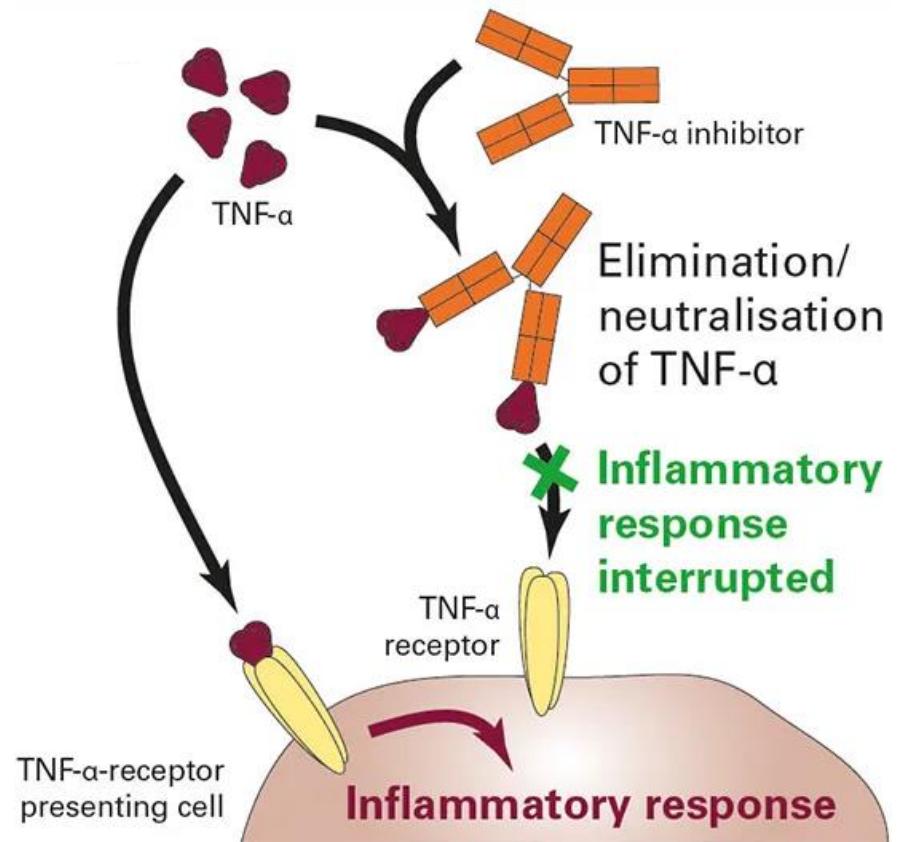
Dosage Form:  
Physioproject, PFS  
40 mg/ 0.8 ml

# Adalimumab

**CinnoRA®**  
Adalimumab

## Mechanism of action

Adalimumab is a recombinant monoclonal antibody that binds to human tumor necrosis factor-alpha (TNF-alpha), thereby interfering with binding to TNF $\alpha$  receptor sites and subsequent cytokine-driven inflammatory processes. It reduces epidermal thickness and inflammatory cell infiltration in plaque psoriasis.



# Monitoring Parameters



CBC with differential (baseline)



Metabolic panel (baseline)



TB screening (prior to initiating & during therapy)



HBV/HCV screening prior to initiating (all patients)



HIV screening in high risk patients (baseline)



Signs/symptoms of heart failure/Infection/ lupus-like  
Syndrome/malignancy

✓ Monitor improvement of symptoms and physical function assessments.

## PART 02

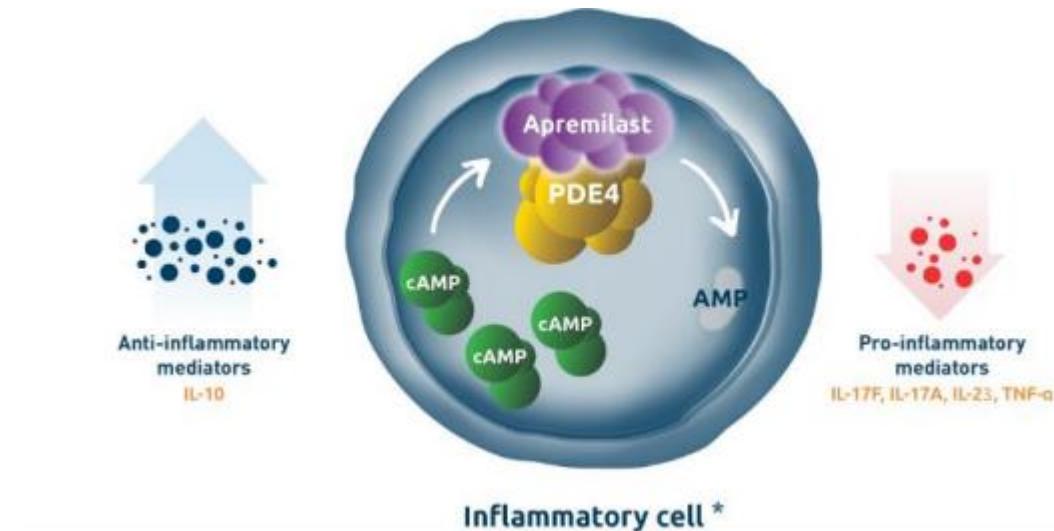
### A brief of Premilatic®



# Apremilast

## Mechanism of action

Apremilast inhibits phosphodiesterase 4 (PDE4) specific for cyclic adenosine monophosphate (cAMP) which results in increased intracellular cAMP levels and regulation of numerous inflammatory mediators (eg, decreased expression of nitric oxide synthase, TNF- $\alpha$ , and IL-23, as well as increased IL-10).



# Apremilast

## Use: Labeled Indications

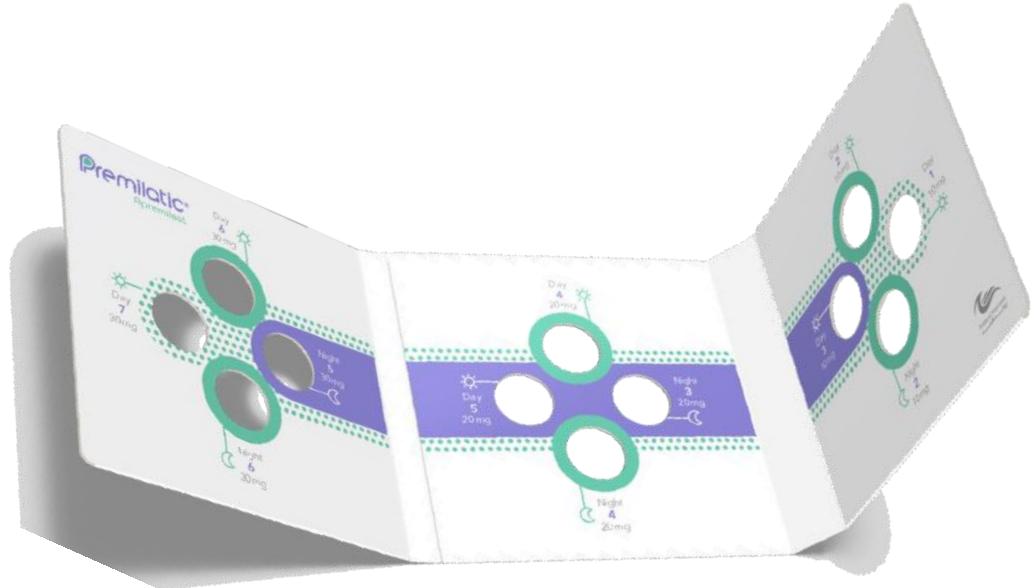
- 1. Psoriasis:** Treatment of adults with plaque psoriasis who are candidates for phototherapy or systemic therapy. Treatment of pediatric patients  $\geq 6$  years of age and  $\geq 20$  kg with moderate to severe plaque psoriasis who are candidates for phototherapy or systemic therapy.
- 2. Psoriatic arthritis:** Treatment of patients with active psoriatic arthritis.
- 3. Behçet disease:** Treatment of oral ulcers associated with Behçet disease.

## Premilatic Packaging

### Starter Pack:

Contains 12 F.C. tablets

- 4 tablets of apremilast 10 mg
- 4 tablets of apremilast 20 mg
- 4 tablets of apremilast 30 mg



### Maintenance Pack:

- A bottle contains 60 FC tablets of apremilast 30 mg

## Dosing (Behçet disease, psoriasis, or psoriatic arthritis)

### Dosing: Adult

- Initial Dose: Children  $\geq$ 6 years and adolescents, weighing  $\geq$ 50 kg

Day	Morning Dose	Evening Dose
Day 1	10 mg	Do Not Take a Dose
Day 2	10 mg	10 mg
Day 3	10 mg	20 mg
Day 4	20 mg	20 mg
Day 5	20 mg	30 mg
Day 6 onward	30 mg	30 mg

- Maintenance dose: 30 mg twice daily starting on day 6

# Monitoring Parameters



Monitor weight regularly during therapy



Renal function



Signs or symptoms of mood changes, depression, or suicidal thoughts



Diarrhea or vomiting

 Add-on Therapy

 Patient compliance



PART  
03

## JAK Inhibitors Available in Iran

**Rhofanib®**  
Tofacitinib

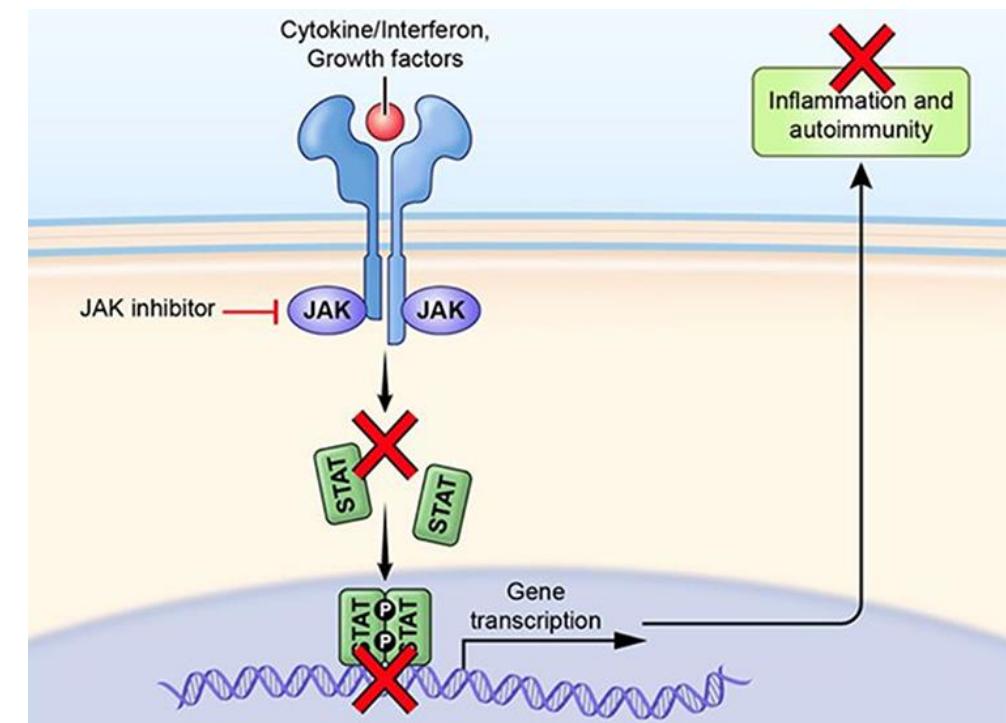
**Intyma®**  
Baricitinib

**Nupada®**  
Upadacitinib

# JAK Inhibitors

## Mechanism of action

These agents inhibit Janus kinase (JAK) enzymes, which are intracellular enzymes involved in stimulating hematopoiesis and immune cell function through a signaling pathway. JAKs activate signal transducers and activators of transcription (STATs), which regulate gene expression and intracellular activity. The inhibition of JAKs prevents the activation of STATs.



## JAK Inhibitors In Iran

For the first time in Iran, **NANOALVAND** has manufactured JAK inhibitor **tofacitinib (Rhofanib)** and made it available for thousands of patients who suffer from autoimmune diseases. A few years later, manufactured another JAK inhibitor **baricitinib (Intyma)** and now has the honor of introducing the newest molecule **upadacitinib (Nupada)**.

**Rhofanib<sup>®</sup>**  
Tofacitinib

**Intyma<sup>®</sup>**  
Baricitinib

**Nupada<sup>®</sup>**  
Upadacitinib

Generic Name:  
Tofacitinib

Dosage Form:  
IR Tablet 5 and 10 mg



# Rhofanib® Tofacitinib Labeled Indications:

- Moderately to Severely Active Rheumatoid arthritis
- Active Ankylosing Spondylitis
- Active Psoriatic Arthritis
- Polyarticular Course Juvenile Idiopathic Arthritis
- Moderately to Severely Active Ulcerative colitis



# Tofacitinib in Rheumatology

## Adult Dosing

### RA,AS,PSA:

- 5 mg twice daily



Generic Name:  
Baricitinib

Dosage Form:  
IR Tablet 2 and 4 mg



## Labeled Indications:

- Severe Alopecia areata
- Moderately to severely active Rheumatoid arthritis
- COVID-19 in hospitalized patients



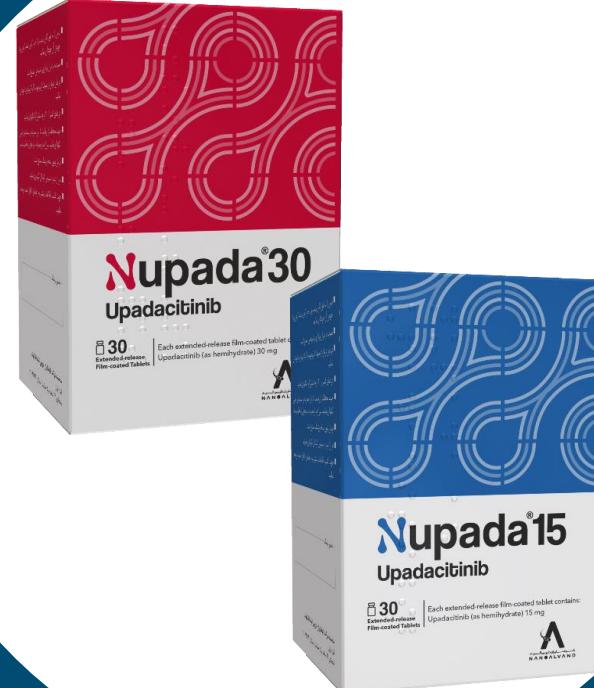
## Baricitinib in Rheumatology

### Adult Dosing

- Rheumatoid arthritis: 2 mg once daily
- For use as adjunctive therapy in patients who have not met treatment goals despite maximally tolerated methotrexate therapy; may also be used off label as an alternative to methotrexate in disease-modifying antirheumatic drug (DMARD)-naive patients with moderate to high disease activity

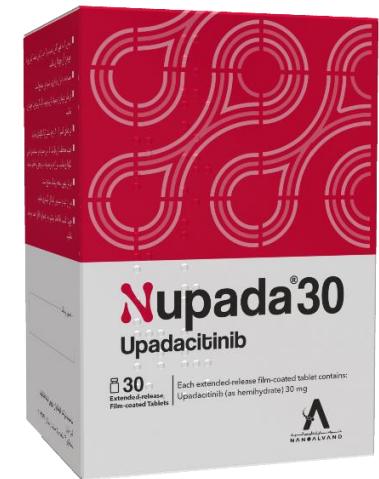
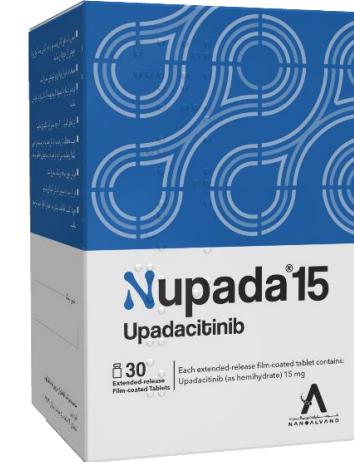
Generic Name:  
Upadacitinib

Dosage Form:  
ER Tablets 15 and 30  
mg



# Nupada® Labeled Indications: Upadacitinib

- Refractory Moderate to Severe Atopic Dermatitis
- Moderately to Severely Active Rheumatoid arthritis
- Active Ankylosing Spondylitis
- Active Non-radiographic Axial Spondyloarthritis
- Active Psoriatic Arthritis
- Polyarticular Juvenile Idiopathic Arthritis
- Moderately to Severely Active Ulcerative Colitis and Crohn's Disease



# Upadacitinib in Rheumatology

## Adult Dosing

### □ RA, AS, PSA:

- 15 mg once daily

## Monitoring Parameters



CBC diff and LFT: baseline and periodically thereafter



Lipids: 4-8 weeks after therapy for Tofacitinib, 12 weeks after therapy for Baricitinib and Upadacitinib



Viral hepatitis and TB (latent and active): prior to initiating therapy and periodically thereafter



Abdominal symptoms



Skin examinations: periodically, in patients at increased risk for skin cancer



renal function and signs/symptoms of infections: baseline and periodically thereafter

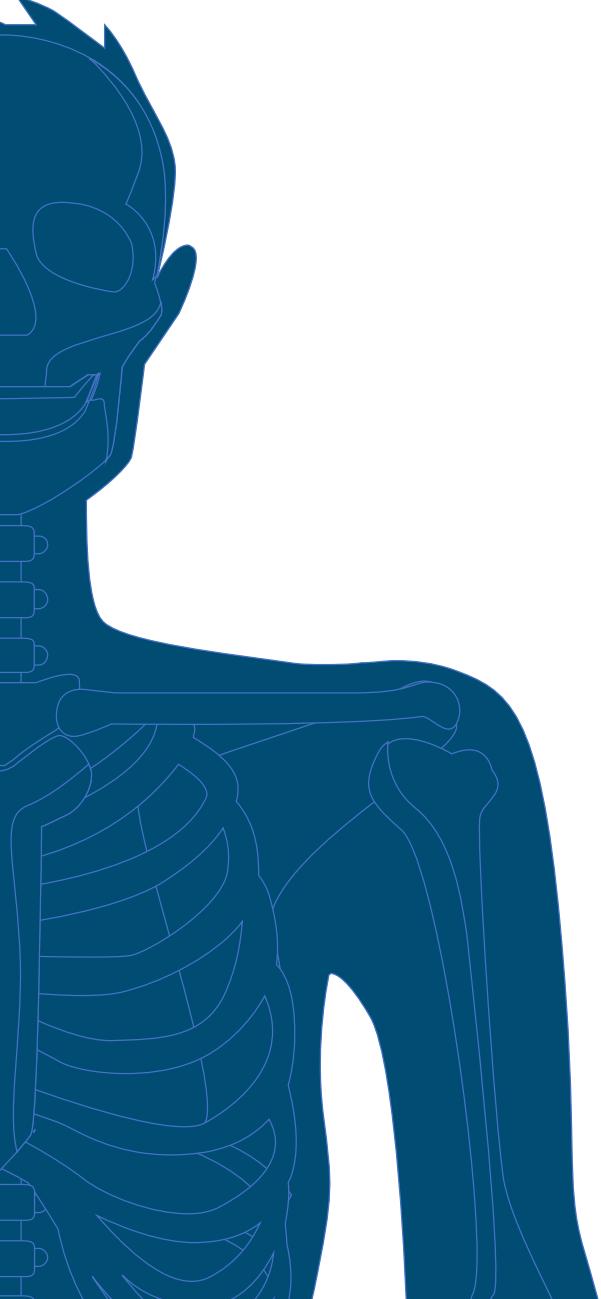


Verify pregnancy status: prior to initiating therapy

# Trexoma



# Osteoporosis



# Cinn<sup>o</sup>Par<sup>®</sup>

Teriparatide  
600 mcg, 2.4 ml

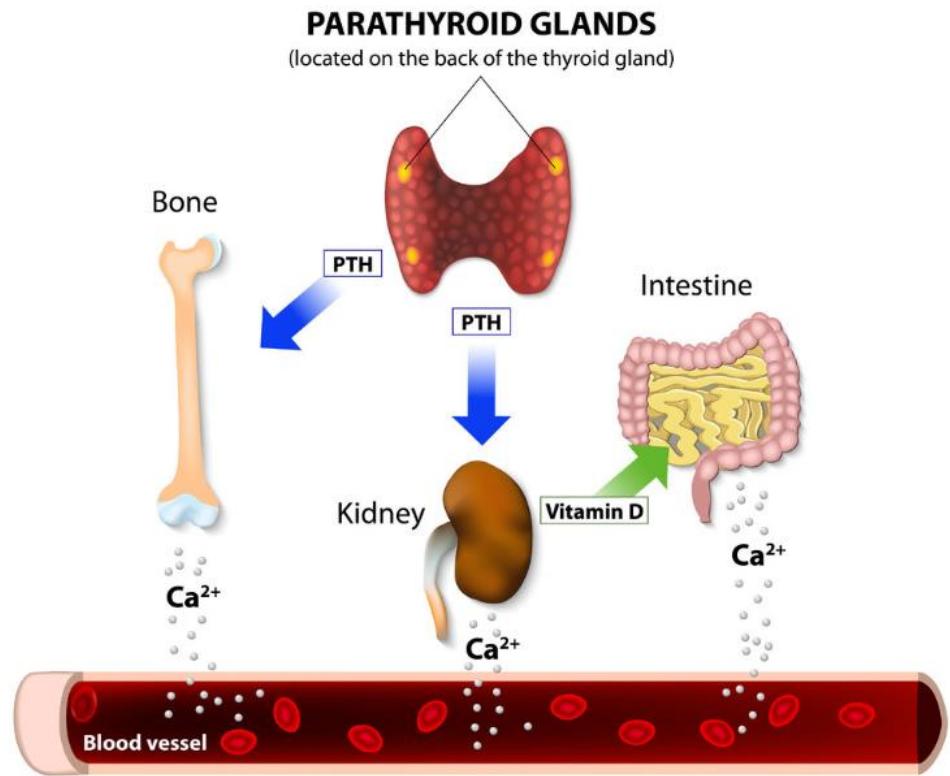


Orchid Pharmed  
Sky's the Limit



# Mechanism of Action

- ✓ Teriparatide is a recombinant formulation of human PTH hormone that acts similarly to PTH hormone by stimulating osteoblast function, increasing calcium absorption from the digestive tract, and increasing calcium reabsorption from the kidneys



# Teriparatide

## Unique mechanism of action

The first FDA approved  
Anabolic agent for osteoporosis

PTH stimulates preosteoblasts to  
mature into bone-forming osteoblasts

Bone formation begins within the **first month**  
and **peaks 6 to 9 months** after initiation of daily PTH.

# Labeled Indications

- Treatment of osteoporosis in postmenopausal women at high risk of fracture
- Treatment of osteoporosis caused by long-term use of systemic glucocorticoids (greater than 5 mg of prednisone daily or equivalent) which increases the risk of fracture
- Increasing bone mass in men at high risk of fracture due to sex hormone deficiency or osteoporosis
- Alternative therapy in patients who have not tolerated or responded adequately to other osteoporosis treatments



## Monitoring Parameters

- Orthostatic hypotension
- BMD measurement at baseline and 1 to 2 years after starting treatment
- Serum calcium (at least 16 hours after drug injection)
- Urine calcium in patients suspected of having urinary stones or increased calcium
- If needed, monitor bone tests such as P1NP at baseline, 3 months, and 6 after starting treatment to assess response to treatment

# Arylia



ARNOGEN  
اریوژن فارم

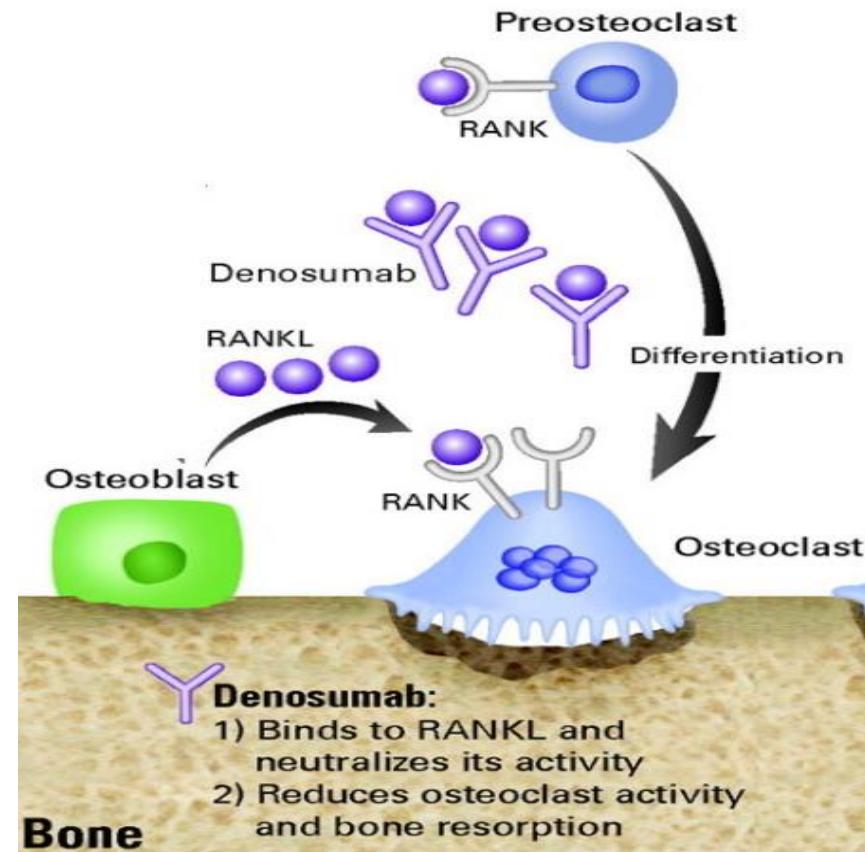


Orchid Pharmmed  
Sky's the Limit

# Mechanism of Action

## ➤ Denosumab is a monoclonal antibody

- ✓ Affinity for nuclear factor-kappa ligand (RANKL)
- ✓ Leading to **decreased bone resorption** and **increased bone mass** in **osteoporosis**.

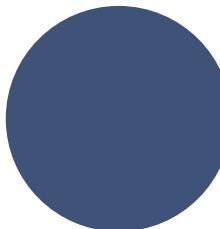


# Indications

Arylia is indicated for the following conditions;

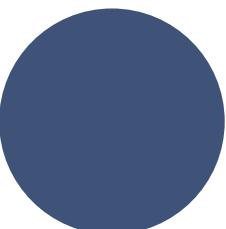
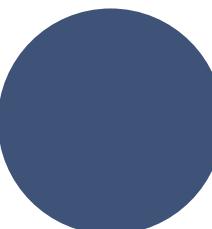
**Osteoporosis and bone loss (to increase bone mass) Including:**

Androgen deprivation therapy-induced bone loss in males with prostate cancer



Aromatase inhibitor-induced bone loss in females with breast cancer

Glucocorticoid-induced osteoporosis



Osteoporosis treatment in males and postmenopausal females at high risk of fracture

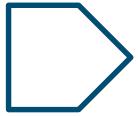




# Monitoring Parameters

- Serum creatinine, serum calcium, phosphorus and magnesium
- Pregnancy test
- Signs/symptoms of hypocalcemia, infection, or dermatologic reactions
- Routine oral exam
- Signs/symptoms of hypersensitivity
- Serial BMD at baseline and every 1 to 3 years





## Renal Impairment

- ❖ **CrCl  $\geq$ 30 mL/minute:**  
No dosage adjustment necessary
- ❖ **CrCl  $<$ 30 mL/minute or on dialysis:**  
Monitor patients closely



## Hepatic Impairment

- ❖ **No dosage adjustment necessary**



# Administration

**Subcutaneously**



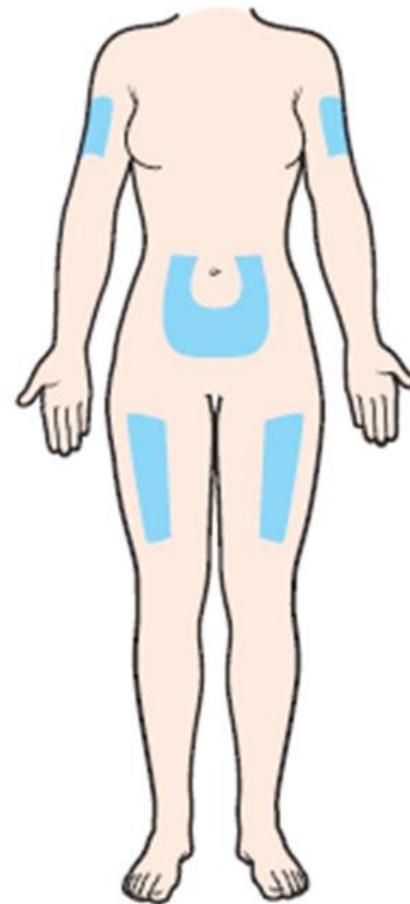
**60 mg as a single dose**

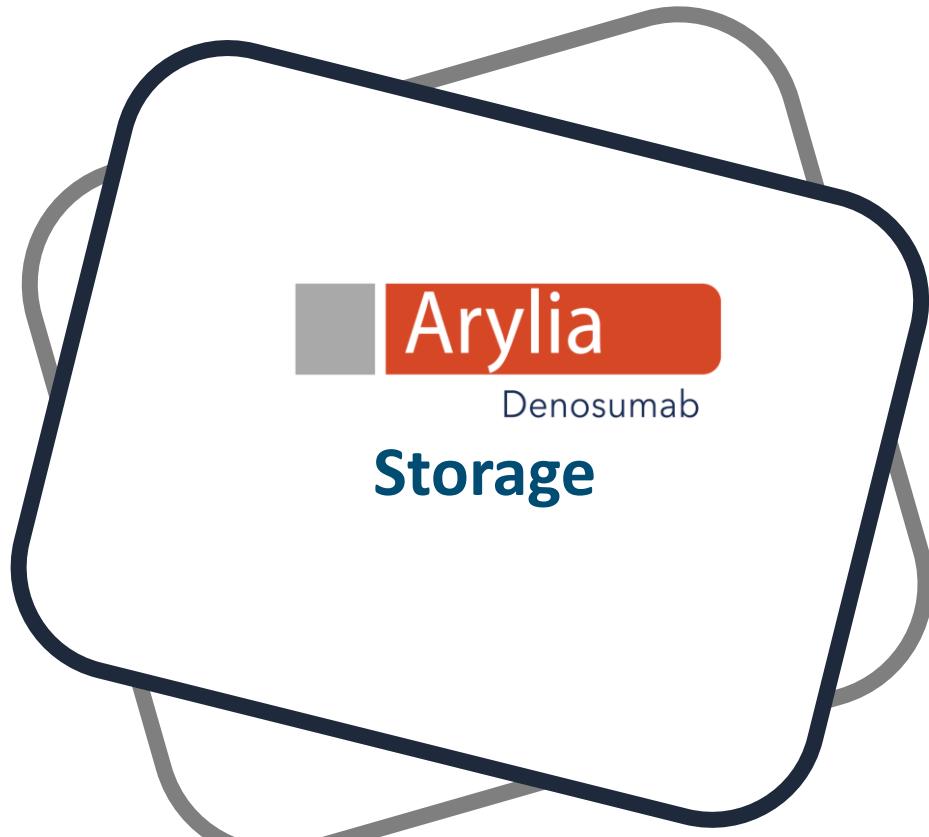


**Once every six months**



**Preferred Sites:**  
**upper arm, upper thigh, or abdomen**





- 01 In a refrigerator at 2°C to 8°C
- 02 Do not freeze
- 03 Protect Arylia from direct light and heat
- 04 Avoid vigorous shaking of Arylia

## Benefits

The only effective option  
in combination therapy  
with Teriparatide

Suitable for use in  
patients with renal  
impairment

Suitable for  
long-term use

Patient compliance



# Thank You for Your Attention



**Orchid Pharmed**  
Sky's the Limit

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