

**cycloSPORINE (Rx)**

(syē'kloe-spor-ēen)

Gengraf, Neoral, SandIMMUNE

*Func. class.:* Immunosuppressant, antirheumatic (DMARD)*Chem. class.:* Fungus-derived peptide**Do not confuse:**cycloSPORINE/cycloSERINE/  
cyclophosphamide**ACTION:** Produces immunosuppression by inhibiting T-lymphocytes**USES:** Organ transplants (liver, kidney, heart) to prevent rejection (GVHD), rheumatoid arthritis, psoriasis**Unlabeled uses:** Recalcitrant ulcerative colitis, aplastic anemia, Crohn's disease, thrombocytopenia purpura, lupus, nephritis, myasthenia gravis, psoriatic arthritis, atopic dermatitis**CONTRAINDICATIONS:** Breast-feeding, hypersensitivity to polyoxyethylated castor oil (inj only); psoriasis or RA in renal disease (Neoral/Gengraf); Gengraf/Neoral used with PUVA/UVB, methotrexate, coal tar; ocular infections**Black Box Warning:** Uncontrolled malignant hypertension**Precautions:** Pregnancy, geriatric patients, severe hepatic disease**Black Box Warning:** Immunosuppression, nephrotoxicity, skin cancer; requires a specialized care setting and experienced clinician; infections; new primary malignancy (lymphoma, skin cancer)**DOSAGE AND ROUTES—NTI****Prevention of transplant rejection (nonmodified) (Sandimmune)**

- **Adult/child: PO** 15 mg/kg 4-12 hr before surgery, daily for 2 wk, reduce dosage by 2.5 mg/kg/wk to 5-10 mg/kg/day; **IV** 5-6 mg/kg 4-12 hr before surgery, daily, switch to **PO** form as soon as possible

**Prevention of transplant rejection (modified) (Neoral)**

- **Adult/child: PO** 4-12 mg/kg/day divided q12hr, depends on organ transplanted

**Rheumatoid arthritis (Neoral/Gengraf)**

- **Adult: PO** 2.5 mg/kg/day divided bid, may increase 0.5-0.75 mg/kg/day after 8-12 wk, max 4 mg/kg/day

**Psoriasis (Neoral/Gengraf)**

- **Adult: PO** 2.5 mg/kg/day divided bid, × 4 wk, then increase by 0.5 mg/kg/day q2wk, max 4 mg/kg/day

**Autoimmune diseases (Sandimmune)**

- **Adult/child: PO** 1-3 mg/kg/day

**Atopic dermatitis (unlabeled)**

- **Adult/adolescent/child ≥2 yr: PO** 5 mg/kg/day

**Crohn's disease that is resistant to/intolerant of corticosteroids (unlabeled)**

- **Adult: PO** 2.5-15 mg/kg/day (non-modified)

**Available forms:** Oral sol 100 mg/mL; soft gel cap 25, 50, 100 mg; inj 50 mg/mL**Administer:****PO route**

- **Some brands are not interchangeable**
- Do not break, crush, or chew caps
- Use pipette provided to draw up oral sol; may mix with milk or juice; wipe pipette, do not wash (Neoral)
- For several days before transplant surgery; give at same time of day
- With corticosteroids
- With meals for GI upset or in chocolate milk, milk, or orange juice (SandIMMUNE)

**Rheumatoid arthritis**

- Give Neoral or Gengraf 2.5 mg/kg/day divided bid; may use with salicylates, NSAIDs, PO corticosteroids
- Always give the daily dose of Neoral/Gengraf in 2 divided doses on consistent schedule
- Give initial SandIMMUNE PO dose 4-12 hr before transplantation as a single dose of 15 mg/kg, continue the single daily dose for 1-2 wk, then taper 5%/wk to a maintenance dose of 5-10 mg/kg/day