Clindamycin

**Antibiotic Class:**
Lincosamide

**Antimicrobial Spectrum:**

**Mechanism of Action:**
Binds to the 50S ribosomal subunit of rRNA and inhibits the initiation of peptide chain synthesis

**Pharmacodynamics:**
Time > MIC

**Pharmacokinetics:**
Cmax (900mg IV): 15.1mcg/ml
Half-life: Approximately 3 hours
See Figure 2, 3

**Adverse Reactions:**
GI: diarrhea, *C. difficile* associated diarrhea
Skin: rash, anaphylaxis, Stevens-Johnson syndrome
Cardiovascular: hypotension
GU: cervicitis, vaginitis

**Dosage:**
Capsule: 150 mg, 300 mg
Cream, vaginal, as phosphate: 2% (40 g)
Foam, topical, as phosphate 1%: (50 g, 100 g)
Gel, topical 1%: (30 g, 60 g, or 40ml, 75ml)
Granules for oral solution: 75 mg/5 mL (100 mL)
IV: 300 mg (50 mL), 600 mg (50 mL), 900 mg (50 mL)
Lotion 1%: 60 mL
Pledgets, topical 1%: #60
Solution, topical 1%: (30 mL, 60 mL)
Vaginal Suppository: 100 mg #3
Adults: 300mg PO q 6 hours; IV: 600mg to 1200mg/day divided q 12 – 6 hours (1200 to 2700mg/day divided for serious infections); topical: apply to affected area q 12 hours; Intravaginal cream: One applicatorful hs for 3 or 7 days (vaginal suppository for 3 days).

Children > 10kg: 8-25mg/kg/day PO divided q 8 – 6 hours (palmitate salt suspension)
Children < 10kg: 37.5mg PO q 8 hours
Children > 1 month: 20 – 40mg/kg/day IV divided q 8 – 6 hours
Children > 12 years old (topical foam): apply once daily to affected areas

Neonates < 1 month: 15 – 20mg/kg/day IV divided q 8 – 6 hours

**Disease state based dosing:**
Renal failure: Dosing adjustments not necessary (see Monitoring parameters)
Hepatic failure: Dosing adjustments not necessary (see Monitoring parameters)

**Dosing during Continuous Renal Replacement Therapy**
CVVH (Continuous venovenous hemofiltration): 600-900mg q8h
CVVHD (Continuous venovenous hemodialysis): 600-900mg q8h
CVVHDF (Continuous venovenous hemodiafiltration) 600-900mg q8h
Note: CVVH is mainly for fluid removal alone. Many institutions will employ more CVVHD or CVVHDF which combine dialysis with fluid removal.

**Contraindications/Warnings/Precautions:**
Precautions:
- Patients receiving clindamycin and develop loose stools/diarrhea should have stool culture sent for *C. difficile* toxin test.
- Close monitoring in patients concomitantly receiving neuromuscular blocking agents. A reduction in the dose of these agents may be necessary.

**Drug Interactions:**
Erythromycin (macrolides): In-vitro antagonism – clinical significance unknown
Skeletal muscle relaxants (atracurium, vecuronium, pancuronium, cyclobenzaprine, and others): enhanced neuromuscular blockade.

**Pregnancy Risk Factor:**
C

**Monitoring parameters:**
Therapeutic: Culture and sensitivities, signs and symptoms of infection
Toxic: In severe renal or hepatic failure, serum concentration monitoring is recommended.

**Brand names/Manufacturer:** Various manufacturers (click here)
- ACLINDA (Azupharma - GERMANY)
- APO-CLINDAMYCIN (Apotex CANADA)
• ARFAREL (Pharmanik - GREECE)
• BASOCIN (Galderma - GERMANY)
• BENZAACLIN (Dermik - USA)
• BOTAMYCIN-N (Zekides - GREECE)
• CHINACIN-T (Chinta - THAILAND)
• CLARIBEL (Loyal Advance - HONG KONG)
• CLEOCIN (Pharmacia & Upjohn – USA, ITALY, AUSTRIA, AUSTRALIA)
• CLEOCIN PEDIATRIC (Pharmacia & Upjohn - USA)
• CLEOCIN PHOSPHATE (Pharmacia & Upjohn - USA)
• CLEOCIN T (Pharmacia, USA)
• CLIDACIN (Vianex - GREECE)
• CLIDAM (Biochemie - AUSTRIA)
• CLIDETS (Stiefel - CHILE)
• CLIMADAN (Dankos - SINGAPORE)
• CLINAC (Pacific - HONG KONG, NEW ZEALAND)
• CLINAGEL (Stiefel - BRAZIL)
• CLINDA (1A - GERMANY)
• CLINDABETA (Betapharm - GERMANY)
• CLINDAC (Hexal – AUSTRIA, ISRAEL)
• CLINDAC (Intramed - SOUTH AFRICA)
• CLINDACNE (Igefarma – BRAZIL)
• CLINDA-DERM (Paddock - USA)
• CLINDAGEL (Galderma - USA)
• CLINDAHEXAL (Hexal – GERMANY, SOUTH AFRICA)
• CLINDAL (Hexal - AUSTRIA)
• CLINDAMAX (PharmaDerm - USA)
• CLINDAMIN C (Teuto - BRAZIL)
• CLINDAMYCIN (Sabex - CANADA)
• CLINDAMYCIN HYDROCHLORIDE (Teva, Sandoz - USA)
• CLINDAMYCIN PHOSPHATE (Abbott, Quad, Lederle, Greenstone, Fougera - USA, Stiefel – CANADA)

• CLINDARIX (Ariston - BRAZIL)
• CLINDASAAR (MIP - GERMANY)
• CLINDASOL (Stiefel - CANADA)
• CLINDASTAD (Stada - GERMANY)
• CLINDATECH (Dermatech – AUSTRALIA, HONG KONG, SINGAPORE)
• CLINDAZYMN (Lemery - MEXICO)
• CLINDETSY (Stiefel – USA, CANADA)
• CLINDOXYL (Stiefel - CANADA)
• CLINOTT (Macrophar - THAILAND)
• CLIN-SANORANIA (Lichtenstein - GERMANY)
• CLINWAS (Chiesi - SPAIN)
• C-MYCIN (Hoe - MALAYSIA)
• COPAL (Biomet Merck - GERMANY)
• C/T/S (Hoechst Marion Roussel - USA)
• CUTACLIN (ICN - MEXICO)
• DACIN-F (Farmaline - THAILAND)
• DAACLIN (Laboratorios Chile - CHILE)
• DALACIN (Pharmacia – SPAIN, SWEDEN, UK, NORWAY, AUSTRIA, IRELAND, DENMARK, FINLAND, NEW ZEALAND, CHILE, HUNGARY, CZECH REPUBLIC, CANADA)
• DALACIN C (Pharmacia & Upjohn (AUSTRALIA, CANADA, UK, IRELAND, NETHERLANDS, SOUTH AFRICA, SWITZERLAND, BELGIUM, PORTUGAL, BRAZIL, HONG KONG, MEXICO,
ISRAEL, THAILAND, SINGAPORE, AUSTRALIA, MALAYSIA, GREECE, CHILE, HUNGARY, CZECH REPUBLIC, ITALY

- DALACINE (Pharmacia - FRANCE)
- DALACINE T (Pharmacia - FRANCE)
- DALACIN T (Pharmacia – IRELAND, NETHERLANDS, SOUTH AFRICA, SWITZERLAND, UNITED KINGDOM, CANADA, PORTUGAL, BRAZIL, HONG KONG, MEXICO, AUSTRALIA, NEW ZEALAND, THAILAND, SINGAPORE, MALAYSIA, CHILE, HUNGARY, CZECH REPUBLIC, ITALY, CANADA)
- DALACIN TOPICAL (Pharmacia - BELGIUM)
- DALACIN V (Pharmacia – AUSTRALIA, SWITZERLAND, PORTUGAL, MEXICO, BRAZIL, CHILE)
- DALACIN VAGINAL (Pharmacia – BELGIUM, CANADA, ISRAEL)
- DALACIN VC (Pharmacia - SOUTH AFRICA)
- DALACIN V (Pharmacia & Upjohn - HONG KONG, NEW ZEALAND, NETHERLANDS)
- DALAGIS T (Agis - ISRAEL)
- DAMICLIN (Fustery - MEXICO)
- DELTA T (Merck - HONG KONG)
- DENTOMYCIN (Kreussler - GERMANY)
- DERMABEL (Laboratorios Chile - CHILE)
- DIVANON (Tecnofarma - CHILE)
- DUAC (Stiefel - USA)
- DUAC ONCE DAILY (Stiefel - UNITED KINGDOM)
- EDASON (Medicus - GREECE)
- FEMISAN (Grossman - MEXICO)
- FLEMINOSAN (Pharmathen – HONG KONG)
- FOUCH (Rafarm - GREECE)
- GALECIN (Galen - MEXICO)
- JUTACLIN (Juta - GERMANY)
- KLIMICIN (Lek – THAILAND, SLOVENIA, CZECH REPUBLIC)
- KLYNDaken (Kendrick - MEXICO)
- LACIN (Atlantic - THAILAND)
- LANACINE (Lannacher - AUSTRIA)
- LEXIS (Mintlab - CHILE)
- LINDASOL (Kleva - GREECE)
- LISIKEN (Kendrick - MEXICO)
- NOVO-CLINDAMYCIN (Novopharm Canada)
- PARADIS (Biomedica-Chemica - GREECE)
- RATIO-CLINDAMYCIN (Ratiopharm - CANADA)
- RIVA-CLINDAMYCIN (Laboratoire Riva CANADA)
- ROSIL (Siam Bheasach - THAILAND)
- SOBELIN (Pharmacia - GERMANY)
- SOTOMYCIN (Bros - GREECE)
- TIDACT (Yung Shin – SINGAPORE, MALAYSIA)
- TOLIKEN (Norma Norma), Gr. - GREECE)
- TOPICIL (Douglas - NEW ZEALAND, MALAYSIA)
- TOPICIL (Douglas – HONG KONG)
- TREXEN (Asofarma - MEXICO)
- TURIMYCIN (Jenapharm - GERMANY)
- UPDERM (Genepharm - GREECE)
• ZINDACLIN (Strakan - UNITED KINGDOM, ISRAEL, BELGIUM, GERMANY)
• ZINDACLINE (Fujisawa - FRANCE)