# Imiquimod Cream Therapeutic Cheat Sheet

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#### **TRADE NAME**

- > Aldara (imiquimod 5% cream)
- > Zyclara (imiquimod 2.5% or 3.75% cream

#### **MECHANISM OF ACTION**

- Binds to toll-like receptor 7 and 8 and induces release of NF-KB<sup>1</sup>
  - Results in pro-inflammatory cytokine and chemokine release to generate Th1 response against tumoral or atypical cells<sup>1</sup>

#### **FDA APPROVED USES**

- > Field therapy for actinic keratoses
- > Superficial BCC
- > External genital warts

### **OFF-LABEL USES**

Imiquimod cream has been used off-label for dermatologic diseases including, but not limited to: lentigo maligna, nodular BCC, SCC in situ, verruca vulgaris, postoperative keloid prevention<sup>2</sup>

### **SIDE EFFECTS**

- > Common
  - > Erythema
  - > Scaling
  - > Erosions/ulcerations
  - > Edema
  - > Hypopigmentation
- > Rare
  - > Fever
  - > Malaise
  - > Myalgias
  - > Diarrhea
  - > Headache
  - > Vitiligo<sup>3</sup>
  - > Psoriasis<sup>4</sup>

## FDA APPROVED DOSING<sup>2</sup>

- > Actinic keratoses
  - > 5% cream: apply twice weekly for 16 weeks
  - 2.5 or 3.75% cream: apply once daily for two 2-week cycles separated by 2 week break
- > Superficial BCC
  - > 5% cream: apply five times weekly for 6 weeks
- > External genital warts
  - 5% cream: apply three times weekly for 6-10 hours for maximum 16 weeks
  - > 2.5 or 3.75% cream: apply once daily for maximum 8 weeks

## PREGNANCY

> Category C

## **RESULTS**

- > Actinic keratoses<sup>5</sup>
  - > In a multicenter, single blind randomized trial, four treatment modalities for actinic keratoses were compared to determine efficacy of at least 75% clearance after 12 months of use
  - 5% fluorouracil was significantly more effective at maintaining at least 75% clearance 12 months after use (74.7%) when compared to imiquimod (53.9%), MAL-PDT (37.7%), and ingenol mebutate (28.9%)
- > Superficial BCC<sup>6</sup>
  - In a single blind, non-inferiority, randomized controlled trial, imiquimod was compared to 5-fluorouracil and photodynamic therapy (PDT) for treatment of superficial BCC
  - Imiquimod was superior to PDT with overall treatment success of 83.4% and 72.8%, respectively
  - 5-fluorouracil was non-inferior to imiquimod with overall treatment success of 80.1% and 83.4%, respectively
- > External genital warts<sup>7</sup>
  - In a randomized, double-blind, placebo controlled trial, imiquimod 5% cream was compared to imiquimod 1% cream and vehicle and complete clearance rate after 16 weeks was 50%, 21%, and 11%, respectively
  - The difference between complete clearances rates was statistically significant when comparing imiquimod 5% cream to both vehicle and imiquimod 1% cream (P < 0.001)<sup>5</sup>