HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use ZIANA Gel safely and effectively. See full prescribing information for ZIANA Gel.

ZIANA™ (clindamycin phosphate 1.2% and tretinoin 0.025%) Gel
For topical use only
Initial U.S. Approval: 2006

--- INDICATIONS AND USAGE ---
ZIANA Gel is a lincosamide antibiotic and retinoid combination product indicated for the topical treatment of acne vulgaris in patients 12 years or older. (1)

--- DOSAGE AND ADMINISTRATION ---
- Apply a pea-sized amount to the entire face once daily at bedtime. Do not apply to eyes, mouth, angles of the nose, or mucous membranes. (2)
- ZIANA Gel is not for oral, ophthalmic, or intravaginal use. (2)

--- DOSAGE FORMS AND STRENGTHS ---
Topical gel: Clindamycin phosphate 1.2% and tretinoin 0.025% gel in 2, 30, and 60 gram tubes. (3)

--- CONTRAINDICATIONS ---
ZIANA Gel is contraindicated in patients with regional enteritis, ulcerative colitis, or history of antibiotic-associated colitis. (4)

--- WARNINGS AND PRECAUTIONS ---
- Colitis: Clindamycin can cause severe colitis, which may result in death. Diarrhea, bloody diarrhea, and colitis (including pseudomembranous colitis) have been reported with the use of clindamycin. ZIANA Gel should be discontinued if significant diarrhea occurs. (5.1)
- Ultraviolet Light and Environmental Exposures: Avoid exposure to sunlight and sunlamps. Wear sunscreen daily. (5.2)

--- ADVERSE REACTIONS ---
Observed local adverse reactions in patients treated with ZIANA Gel were skin erythema, scaling, itching, burning, and stinging. Other most commonly reported adverse events (≥1% in patients treated with ZIANA Gel) were nasopharyngitis, pharyngolaryngeal pain, dry skin, cough, and sinusitis. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Medicis, The Dermatology Company at 1-800-900-6389 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

--- DRUG INTERACTIONS ---
- Concomitant use of topical medications with a strong drying effect can increase skin irritation. Use with caution. (7.1)
- ZIANA Gel should not be used in combination with erythromycin-containing products because of its clindamycin component. (7.2)

--- PATIENT COUNSELING INFORMATION ---
See 17 for PATIENT COUNSELING INFORMATION and FDA-approved labeling.

Revised: 11/2006
or cold, also may be irritating to patients under treatment with ZIANA Gel.

6 ADVERSE REACTIONS
6.1 Clinical Studies Experience
Because clinical trials are conducted under prescribed conditions, adverse reaction rates observed in the clinical trial may not reflect the rates observed in practice. The adverse reaction information from clinical trials does, however, provide a basis for identifying the adverse reactions that appear to be related to drug use for approximating rates.

The safety data presented in Table 1 (below) reflects exposure to ZIANA Gel in 1,853 patients with acne vulgaris. Patients were 12 years and older and were treated once daily for 12 weeks. Adverse reactions that were reported in ≥ 1% of patients treated with ZIANA Gel were compared to adverse reactions in patients treated with clindamycin phosphate 1.2% in vehicle gel, tretinoin 0.025% in vehicle gel, and the vehicle gel alone:

Table 1: Adverse Reactions Reported in at Least 1% of Patients Treated with ZIANA Gel: 12-Week Studies

<table>
<thead>
<tr>
<th>Local Reaction</th>
<th>ZIANA Gel N=1853 N (%)</th>
<th>Clindamycin N=1428 N (%)</th>
<th>Tretinoin N=846 N (%)</th>
<th>Vehicle N=423 N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATIENTS WITH AT LEAST ONE AR</td>
<td>497 (27)</td>
<td>342 (24)</td>
<td>225 (27)</td>
<td>91 (22)</td>
</tr>
<tr>
<td>Nasopharyngitis</td>
<td>65 (4)</td>
<td>64 (5)</td>
<td>16 (2)</td>
<td>5 (1)</td>
</tr>
<tr>
<td>Pharyngolaryngeal pain</td>
<td>29 (2)</td>
<td>18 (1)</td>
<td>5 (1)</td>
<td>7 (2)</td>
</tr>
<tr>
<td>Dry skin</td>
<td>23 (1)</td>
<td>7 (1)</td>
<td>3 (&lt;1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Cough</td>
<td>19 (1)</td>
<td>21 (2)</td>
<td>9 (1)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>19 (1)</td>
<td>19 (1)</td>
<td>15 (2)</td>
<td>4 (1)</td>
</tr>
</tbody>
</table>

Note: Formulations used in all treatment arms were in the ZIANA vehicle gel.

Cutaneous safety and tolerance evaluations were conducted at each study visit in all of the clinical trials by assessment of erythema, scaling, itching, burning, and stinging:

Table 2: ZIANA Gel-Treated Patients with Local Skin Reactions

<table>
<thead>
<tr>
<th>Local Reaction</th>
<th>Baseline N=1835 N (%)</th>
<th>End of Treatment N=1614 N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erythema</td>
<td>636 (35)</td>
<td>416 (26)</td>
</tr>
<tr>
<td>Scaling</td>
<td>237 (13)</td>
<td>280 (17)</td>
</tr>
<tr>
<td>Itching</td>
<td>189 (10)</td>
<td>70 (4)</td>
</tr>
<tr>
<td>Burning</td>
<td>38 (2)</td>
<td>56 (4)</td>
</tr>
<tr>
<td>Stinging</td>
<td>33 (2)</td>
<td>27 (2)</td>
</tr>
</tbody>
</table>

At each study visit, application site reactions on a scale of 0 (none), 1 (mild), 2 (moderate), and 3 (severe), and the mean scores were calculated for each of the local skin reactions. In Studies 1 and 2, 1,277 subjects enrolled with moderate to severe acne, 854 subjects treated with ZIANA Gel and 423 treated with vehicle. Analysis over the twelve week period demonstrated that cutaneous irritation scores for erythema, scaling, itching, burning, and stinging peaked at two weeks of therapy, and were slightly higher for the ZIANA-treated group, decreasing thereafter.

One open-label 12-month safety study for ZIANA Gel showed a similar adverse reaction profile as seen in the 12-week studies. Eighteen out of 442 subjects (4%) reported gastrointestinal symptoms.

7 DRUG INTERACTIONS
7.1 Concomitant Topical Medication
Concomitant topical medication, medicated or abrasive soaps and cleansers, soaps and cosmetics that have a strong drying effect, and products with high concentrations of alcohol, astringents, spices or lime should be used with caution. When used with ZIANA Gel, there may be increased skin irritation.

7.2 Erythromycin
ZIANA Gel should not be used in combination with erythromycin-containing products due to its clindamycin component. In vitro studies have shown antagonism between these two antimicrobials. The clinical significance of this in vitro antagonism is not known.

7.3 Neuramorphic Blocking Agents
Clindamycin has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Therefore, ZIANA Gel should be used with caution in patients receiving such agents.

8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
Pregnancy Category C. There are no well-controlled trials in pregnant women treated with ZIANA Gel. ZIANA Gel should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. ZIANA Gel was tested for maternal and developmental toxicity in New Zealand White Rabbits with topical doses of 60, 180 and 600 mg/kg/day. ZIANA Gel at 600 mg/kg/day (approximately 12 times the recommended clinical dose assuming 100% absorption and based on body surface area comparison) was considered to be the no-observed-adverse-effect level (NOAEL) for maternal and developmental toxicity following dermal administration of ZIANA Gel for two weeks prior to artificial insemination and continuing until gestation day 18, inclusive. For purposes of comparisons of the animal exposure to human exposure, the recommended clinical dose is defined as 1 g of ZIANA Gel applied daily to a 60 kg person.

Clindamycin Teratology (Segment II) studies using clindamycin were performed orally in rats (up to 600 mg/kg/day) and mice (up to 100 mg/kg/day) (583 and 49 times amount of clindamycin in the recommended clinical dose based on a body surface area comparison, respectively) or with subcutaneous doses of clindamycin up to 180 mg/kg/day (175 and 88 times the amount of clindamycin in the recommended clinical dose based on a body surface area comparison, respectively) revealed no evidence of teratogenicity.

Tretinoin
In oral Segment III studies in rats with tretinoin, increased survival of neonates and growth retardation were observed at doses in excess of 2 mg/kg/day (~78 times the recommended clinical dose assuming 100% absorption and based on body surface area comparison).

With widespread use of any drug, a small number of birth defect reports associated temporally with the administration of the drug would be expected by chance alone. Thirty cases of temporally associated congenital malformations have been reported during two decades of clinical use of another formulation of topical tretinoin. Although no definite pattern of teratogenicity and no causal association have been established from these cases, 5 of the reports describe the rare birth defect category, holoprosencephaly (defects associated with incomplete midline development of the forebrain). The significance of these spontaneous reports in terms of risk to the fetus is not known.

Dermal tretinoin has been shown to be fetotoxic in rabbits when administered in doses 40 times the recommended human clinical dose based on a body surface area comparison. Oral tretinoin has been shown to be fetotoxic in rats when administered in doses 78 times the recommended clinical dose based on a body surface area comparison.

8.3 Nursing Mothers
It is not known whether clindamycin is excreted in human milk following use of ZIANA Gel. However, orally and parenterally administered clindamycin has been reported to appear in breast milk. Because of the potential for adverse reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother. It is not known whether tretinoin is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when ZIANA Gel is administered to a nursing woman.

8.4 Pediatric Use
Safety and effectiveness of ZIANA Gel in pediatric patients under the age of 12 have not been established.

Clinical trials of ZIANA Gel included patients 12-17 years of age. [See Clinical Studies (14)]

8.5 Geriatric Use
Clinical studies of ZIANA Gel did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects.
11 DESCRIPTION
ZIANA (clindamycin phosphate 1.2% and tretinoin 0.025%) Gel, is an antibiotic and retinoid combination gel product with two active ingredients. Clindamycin phosphate is a water-soluble ester of the semi-synthetic antibiotic produced by a 7(S)-chloro-substitution of the 7(R)-hydroxyl group of the parent antibiotic lincomycin.

The chemical name for clindamycin phosphate is Methyl 7-chloro-6,7,8-trideoxy-6-(1-methyl-trans-4-propyl-L-2-pyrrolidinecarboxamido)-1-thio-L-threo-a-D-galacto-octopyranoside 2-(dihydrogen phosphate). The structural formula for clindamycin phosphate is represented below:

Clindamycin phosphate:

Molecular Formula: C_{28}H_{32}ClN_{2}O_{13}PS  Molecular Weight: 504.97

The chemical name for tretinoin is 3,7-Dimethyl-9-(2,6,8-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenoic acid (all-trans form). The structural formula for tretinoin is represented below:

Tretinoin:

Molecular Formula: C_{28}H_{32}O_{2}  Molecular Weight: 300.44

ZIANA Gel contains the following inactive ingredients: purified water USP, glycerin USP, caromer 981 NF, methylparaben NF, polysorbate 80 NF, edetate disodium USP, citric acid USP, and tromethamine USP.

12 CLINICAL PHARMACOLOGY

12.1 Mechanisms of Action

Clindamycin  [see Microbiology (12.4)].

Tretinoin

Although the exact mode of action of tretinoin is unknown, current evidence suggests that topical tretinoin decreases cohesiveness of follicular epithelial cells with decreased microcomedo formation. Additionally, tretinoin stimulates mitotic activity and increased turnover of follicular epithelial cells causing extrusion of the comedones.

12.3 Pharmacokinetics

In an open-label, multiple-dose study treating 12 subjects with moderate to severe acne, the percutaneous absorption of tretinoin following 14 consecutive daily applications of approximately 4 g of ZIANA Gel was minimal. Quantifiable tretinoin plasma concentrations ranged from 1.0 to 1.6 ng/mL, with unquantifiable plasma concentrations in 50% to 92% of subjects at any given timepoint following administration. The plasma concentrations of the key tretinoin metabolites, 13-cis-retinoic acid and 4-oxo-13-cis-retinoic acid, ranged from 1.0 to 1.4 ng/mL and from 1.6 to 6.5 ng/mL, respectively. Plasma concentrations for clindamycin generally did not exceed 3.5 ng/mL, with the exception of one subject whose plasma concentration reached 13.1 ng/mL.

12.4 Microbiology

Clindamycin binds to the 50S ribosomal subunits of susceptible bacteria and prevents elongation of peptide chains by interfering with peptidyl transfer, thereby suppressing bacterial protein synthesis. Clindamycin has been shown to have in vitro activity against Propionibacterium acnes, an organism which has been associated with acne vulgaris; however, the clinical significance of this activity against P. acnes was not examined in clinical trials with ZIANA Gel. P. acnes resistance to clindamycin has been documented. Resistance to clindamycin is often associated with resistance to erythromycin.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenicity, mutagenicity and impairment of fertility testing of ZIANA Gel have not been performed in any species.

Clindamycin

The carcinogenicity of a 1% clindamycin phosphate gel similar to ZIANA Gel was evaluated by daily application to mice for two years. The daily doses used in this study were approximately 13 and 72 times higher than the human dose of clindamycin phosphate from ZIANA Gel, assuming complete absorption and based on a body surface area comparison. No significant increase in tumors was noted in the treated animals. For purposes of comparisons of the animal exposure to human exposure, the recommended human topical clinical dose is defined as 1 g of ZIANA Gel applied daily to a 60 kg person.

Fertility (Segment 1) studies in rats treated orally with up to 300 mg/kg/day of clindamycin (approximately 290 times the amount of clindamycin delivered from the recommended clinical dose for ZIANA Gel, based on a body surface area comparison) revealed no effects on fertility or mating ability.

Tretinoin

In two independent studies with long-term topical application of tretinoin in mice, carcinogenicity was not observed. In both studies, tretinoin was administered topically (0.025% or 0.1%) three times per week for up to two years. No carcinogenicity was observed with maximum effects of dermal amyloidosis in the basal layer of the skin.

Tretinoin has been shown to enhance photoco-carcinogenicity in properly performed specific studies, employing concurrent or intercurrent exposure to the drug and UV radiation. The contribution of clindamycin to that effect is unknown. Although the significance of these studies to humans is not clear, patients should minimize exposure to sun.

The genotoxic potential of tretinoin was evaluated in an in vitro Ames Salmonella reversion test and an in vitro chromosomal aberration assay in Chinese hamster ovary cells. Both tests were negative.

In oral Segment 1 studies in rats treated with tretinoin, the no-observed-effect-level was 2 mg/kg/day (~78 times the recommended clinical dose assuming 100% absorption and based on body surface area comparison).

14 CLINICAL STUDIES

The safety and efficacy of once daily use of ZIANA Gel for treatment of acne vulgaris were assessed in three 12-week prospective, multi-center, randomized, blinded studies in patients 12 years and older. Studies 1 and 2 were of identical design, and compared ZIANA Gel to clindamycin in the vehicle gel, tretinoin in the vehicle gel, and the vehicle gel alone. Patients with mild, moderate, or severe acne were enrolled in the studies. The co-primary efficacy variables were:

1. Mean percent change from baseline at Week 12 in:
   - inflammatory lesion counts,
   - non-inflammatory lesion counts, and
   - total lesion counts

2. Percent of subjects who cleared or almost cleared at Week 12 as judged by an Evaluator’s Global Severity (EGS) score.

The EGS scoring scale used in all of the clinical trials for ZIANA Gel is as follows:

EVALUATOR’S GLOBAL SEVERITY (EGS) SCALE

1 = Clear
2 = Almost clear
3 = Mild
4 = Moderate
5 = Severe

EGS scoring used in the clinical trials for ZIANA Gel was defined as:

(1) Percent of subjects with percent change from baseline at Week 12:
   - inflammatory lesion counts,
   - non-inflammatory lesion counts, and
   - total lesion counts

(2) Percent of subjects who cleared or almost cleared at Week 12 as judged by an Evaluator’s Global Severity (EGS) score.

The EGS scoring scale used in all of the clinical trials for ZIANA Gel is as follows:

1. Mean percent change from baseline at Week 12 in:
   - inflammatory lesion counts,
   - non-inflammatory lesion counts, and
   - total lesion counts

2. Percent of subjects who cleared or almost cleared at Week 12 as judged by an Evaluator’s Global Severity (EGS) score.

The EGS scoring scale used in all of the clinical trials for ZIANA Gel is as follows:
In Study 1, a total of 1,252 patients were enrolled, and in Study 2, a total of 1,288 patients were enrolled. The combined results are presented in Table 3.

In Study 3, ZIANA Gel was compared to clindamycin gel in a total of 2,010 patients with moderate or severe acne vulgaris (see Table 3). As with Studies 1 and 2, the co-primary endpoints were mean percent grades of improvement from Baseline to Week 12.

In the event a patient treated with ZIANA Gel experiences severe diarrhea or gastrointestinal discomfort, ZIANA Gel should be discontinued and a physician should be contacted.

**PATIENT INFORMATION**

ZIANA Gel may cause irritation such as erythema, scaling, itching, burning, or stinging.

**Unpackaging and Storage**

- Store at 25°C (77°F); excursions permitted to 15–30°C (59–86°F) [see USP Controlled Room Temperature]
- Protect from light.
- Protect from freezing.
- Keep out of the reach of children.
- Keep away from heat.
- Keep tube tightly closed.

**Table 3: Efficacy Results at Week 12 in Studies 1 and 2.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Grade</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal, clear skin with no evidence of acne vulgaris</td>
<td>Clear</td>
<td>46%</td>
</tr>
<tr>
<td>Rare non-inflammatory lesions present, with rare non-inflamed papules (papules must be resolving and may be hyperpigmented, though not pink-red)</td>
<td>Almost Clear</td>
<td>78%</td>
</tr>
<tr>
<td>Some non-inflammatory lesions are present, with few inflammatory lesions (papules/pustules only; no nodulocystic lesions)</td>
<td>Mild</td>
<td>88%</td>
</tr>
<tr>
<td>Non-inflammatory lesions predominate, with multiple inflammatory lesions evident: several to many comedones and papules/pustules, and there may or may not be one small nodulo-cystic lesion</td>
<td>Moderate</td>
<td>94%</td>
</tr>
<tr>
<td>Inflammatory lesions are more apparent many comedones and papules/pustules, there may or may not be a few nodulocystic lesions</td>
<td>Severe</td>
<td>96%</td>
</tr>
<tr>
<td>Highly inflammatory lesions predominate, variable number of comedones, many papules/pustules and many nodulocystic lesions</td>
<td>Very Severe</td>
<td>98%</td>
</tr>
</tbody>
</table>

* Success was defined as cleared or almost cleared at Week 12

**Table 4: Efficacy Results at Week 12 in Study 3**

<table>
<thead>
<tr>
<th>Description</th>
<th>Grade</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal, clear skin with no evidence of acne vulgaris</td>
<td>Clear</td>
<td>46%</td>
</tr>
<tr>
<td>Rare non-inflammatory lesions present, with rare non-inflamed papules (papules must be resolving and may be hyperpigmented, though not pink-red)</td>
<td>Almost Clear</td>
<td>78%</td>
</tr>
<tr>
<td>Some non-inflammatory lesions are present, with few inflammatory lesions (papules/pustules only; no nodulocystic lesions)</td>
<td>Mild</td>
<td>88%</td>
</tr>
<tr>
<td>Non-inflammatory lesions predominate, with multiple inflammatory lesions evident: several to many comedones and papules/pustules, and there may or may not be one small nodulo-cystic lesion</td>
<td>Moderate</td>
<td>94%</td>
</tr>
<tr>
<td>Inflammatory lesions are more apparent many comedones and papules/pustules, there may or may not be a few nodulocystic lesions</td>
<td>Severe</td>
<td>96%</td>
</tr>
<tr>
<td>Highly inflammatory lesions predominate, variable number of comedones, many papules/pustules and many nodulocystic lesions</td>
<td>Very Severe</td>
<td>98%</td>
</tr>
</tbody>
</table>

* Success was defined as at least a 2-grade improvement at Week 12 from baseline.
At bedtime:
• Wash your face gently with a mild soap and warm water.
• Pat the skin dry.
• Apply a pea-size amount of ZIANA Gel to your fingertip and spread it over your face. Gently, smooth it into your skin. Do not get ZIANA Gel in your eyes or mouth, on your lips, on the corners of your nose, or on open wounds.

In the morning:
• Apply a sunscreen and reapply during the day as needed.
• Do not apply ZIANA Gel more than once a day
• Do not use too much ZIANA Gel. Too much ZIANA Gel may irritate your skin.
• Do not wash your face more than 2 to 3 times a day. Washing your face too often or scrubbing it may make your acne worse.

Avoid:
• excessive exposure to the sun, cold, and wind. Weather extremes can dry and burn the skin. Always use a sunscreen on ZIANA Gel treated skin, even on cloudy days. Use other protective clothing such as a hat when you are in the sun.
• the use of sunlamps and tanning booths

If your face becomes sunburned, stop ZIANA Gel until your skin has healed.

What are possible side effects with ZIANA Gel?
• Skin irritation. ZIANA Gel may cause skin irritation such as dryness, redness, peeling, burning, or stinging. Stop ZIANA Gel and call your doctor if your skin becomes very red, swollen, blistered, or crusted.
• Change in skin color. ZIANA Gel may cause a temporary skin color change (lighter or darker).
• Colitis. This occurs rarely. Stop ZIANA Gel and call your doctor if you develop severe watery diarrhea, or bloody diarrhea.

Talk to your doctor about any side effect that bothers you or that does not go away.

These are not all the side effects with ZIANA Gel. Ask your doctor or pharmacist for more information.

How should I store ZIANA Gel?
• Store ZIANA Gel at room temperature, 59 to 86°F (15 to 30°C). Do not freeze.
• Keep ZIANA Gel away from heat and light.
• Keep the tube tightly closed.
• Keep ZIANA Gel and all medicines out of the reach of children

General information about ZIANA Gel
Medicines are sometimes prescribed for purposes other than those listed in patient information leaflet. Do not use ZIANA Gel for a condition for which it was not prescribed. Do not give ZIANA Gel to other people, even if they have the same symptoms you have. It may harm them.

This leaflet summarizes the most important information about ZIANA Gel. If you would like more information, talk with your doctor. You can also ask your pharmacist or doctor for information about ZIANA Gel that is written for healthcare professionals.

If you have questions about ZIANA Gel you can also call: 1-800-900-6309 (this is a toll-free number) between 10:00 a.m. and 4:00 p.m. Eastern Time, Monday through Friday.

What are the ingredients in ZIANA Gel?
Active Ingredients: clindamycin phosphate 1.2% and tretinoin 0.025%

Inactive Ingredients: purified water USP, glycerin USP, carbomer 981 NF, methylparaben NF, polysorbate 80 NF, edetate disodium USP, citric acid USP, propylparaben NF, butylated hydroxytoluene NF, and tromethamine USP.