National PBM Drug Monograph

Sertaconazole (Ertaczo™)

April 2004

VHA Pharmacy Benefits Management Strategic Healthcare Group and the Medical Advisory Panel

Executive Summary

FDA-approved Indication: Sertaconazole, an imidazole topical antifungal agent, is currently approved for a single indication: the treatment of interdigital tinea pedis due to *Trichophyton rubrum*, *T. mentagrophytes*, and *Epidermophyton floccosum*. This agent is also being evaluated for efficacy, safety, and tolerability in cutaneous mycoses, pityriasis versicolor, vaginal candidiasis, and seborrheic dermatitis in mostly foreign studies. Sertaconazole is currently limited to one formulation (2% cream) in the U.S.

Safety: Results from the two pivotal U.S. trials suggest that sertaconazole 2% cream is safe and well tolerated when used twice daily for 4 weeks in the treatment of tinea pedis interdigitalis. Sertaconazole was associated with a low incidence of adverse events with no significant differences in adverse events between sertaconazole- and vehicle-treated patients. Limited available data, mostly from foreign studies, suggest that sertaconazole is similar in safety and tolerability to miconazole, clotrimazole, econazole, ketoconazole, and sulconazole.

Efficacy: Sertaconazole 2% cream, administered twice a day for 4 weeks, has been shown to be superior to vehicle in the treatment of tinea pedis interdigitalis. However, the overall efficacy is small, particularly considering benefit was obtained after 4 weeks of treatment with a twice a day dosage. When results of studies that evaluated the complete cure rates were combined and analyzed by gender, race, and pathogen, sertaconazole was statistically better than vehicle only for males, Caucasians, and *T. rubrum*. Efficacy was not demonstrated for infections due to *T. mentagrophytes* and *E. floccosum*. Sertaconazole cream was shown to be moderately more efficacious than miconazole cream in the treatment of cutaneous mycoses overall but there were no significant treatment differences in subgroup analyses by type of clinical presentation, including tinea pedis. Limited information from foreign published studies suggests that sertaconazole 2% cream is not statistically different in efficacy to clotrimazole or sulconazole 1% cream for cutaneous dermatophytoses.

Conclusion: Sertaconazole topical cream is safe and well tolerated. Based on limited data, its efficacy is similar to that of miconazole for tinea pedis. For cutaneous mycoses, it is moderately more efficacious than miconazole and seems to be similar in efficacy to clotrimazole and sulconazole. It is also superior to vehicle in the treatment of tinea pedis. However, the treatment differences between sertaconazole and either miconazole or placebo are not robust. The FSS cost of sertaconazole was not available, but is expected to be higher than the VA cost of available formulary agents. Since there are five formulary topical antifungals with a wider range of indications or formulations, there does not appear to be any role for sertaconazole cream in the VA.

Recommendation: In the absence of any compelling advantages of sertaconazole over the formulary topical antifungals, it is recommended that this agent remain nonformulary at the National and VISN levels.

Introduction

Sertaconazole 2% cream was FDA-approved in December 2003, making it the 13th topical antifungal to become available in the U.S. and the 12th antifungal cream formulation to be marketed for the treatment of tinea pedis. The other antifungal creams currently marketed in the U.S. include: butenafine 1%, ciclopirox olamine 1%, clotrimazole 1%, econazole 1%, ketoconazole 2%, miconazole 2%, naftifine 1%, nystatin, oxiconazole 1%, sulconazole 1%, terbinafine 1%, and tolnaftate 1%. These topical antifungals are also available as formulations other than cream, such as gel, solution, lotion, spray, or powder. Sertaconazole is being marketed in 48 other countries in various formulations for once or twice daily application for indications that include candidiasis, pityriasis versicolor, superficial mycosis, tinea barbae, tinea corporis, tinea cruris, tinea manuum, and tinea pedis.

The purposes of this monograph are to (1) evaluate the available evidence of safety, tolerability, efficacy, cost, and other pharmaceutical issues that would be relevant to evaluating sertaconazole for possible addition to the VA National Formulary; (2) define its role in therapy; and (3) identify parameters for its rational use in the VA.

Pharmacokinetics[1,2]

There is limited data on the pharmacokinetics of topical sertaconazole 2% cream.

Absorption

The serum concentration of sertaconazole after dermal application has been shown to be minimal to undetectable. In a multiple-dose pharmacokinetic study that included 5 male patients with interdigital tinea pedis (range of diseased area, 42-140 cm^2; mean, 93 cm^2), sertaconazole 2% cream was topically applied every 12 hours for a total of 13 doses to the diseased skin (0.5 grams sertaconazole nitrate per 100 cm^2). Sertaconazole concentrations in plasma measured by serial blood sampling for 72 hours after the thirteenth dose were below the limit of quantitation (2.5 ng/mL) of the analytical method used.

FDA Approved Indication(s) and Off-label Uses[1]

Sertaconazole is approved for the topical treatment of interdigital tinea pedis in immunocompetent patients 12 years of age and older, caused by *Trichophyton rubrum, Trichophyton mentagrophytes, and Epidermophyton floccosum.*

This drug has also been evaluated for cutaneous mycoses, pityriasis versicolor, vaginal candidiasis, and seborrheic dermatitis in mostly foreign studies.[1] Sertaconazole is currently limited to one formulation (cream) in the U.S. In foreign published studies, a solution, gel, powder, vaginal tablets, vaginal cream, and sustained-release vaginal ovules have been evaluated.[1]

Current VA National Formulary Status

Nonformulary, new molecular entity.

There are currently five topical antifungals on formulary (clotrimazole, ketoconazole, miconazole, nystatin, and terbinafine). Four of these agents (and four other over-the-counter and prescription topical antifungals on the U.S. market) are approved for once or twice daily administration for tinea pedis plus two or more other indications, and are also available in at least one formulation other than cream (e.g., lotion, powder, solution, ointment).

Dosage and Administration[2]

In the treatment of interdigital tinea pedis, sertaconazole cream 2% should be applied twice daily for 4 weeks. Sufficient amounts of the cream should be applied to cover both the affected areas between the toes and the immediately surrounding healthy skin of patients with interdigital tinea pedis. If a patient shows no clinical improvement 2 weeks after the treatment period, the diagnosis should be reviewed.

Storage[2]

Sertaconazole 2% cream should be stored at 25° C (77° F); excursions are permitted to 15-30° C (59-86° F).

Adverse Events (Safety Data)[3]

Deaths and Other Serious Adverse Events

There were no deaths or treatment-related serious adverse events, clinical or laboratory, in either the sertaconazole or the vehicle-treated patients in any of the U.S. studies.

Common Adverse Events

Reported cutaneous adverse events were contact dermatitis, dry skin, burning skin, erythema, pruritis, vesiculation, desquamation, hyperpigmentation, application site reaction, and skin tenderness. In clinical trials, cutaneous adverse events were observed in 7 (2%) of 297 sertaconazole-treated patients and 7 (2%) of 291 vehicle-treated patients. There were 2 severe events in each treatment group.

No adverse event trends were apparent in two pivotal clinical trials in relation to gender, race, or age. The rate of adverse events was low and similar for both vehicle and sertaconazole.

An article reviewing mostly foreign studies of the efficacy and safety of sertaconazole in dermatologic and gynecologic mycotic infections suggests that sertaconazole is similar in safety and tolerability to miconazole, clotrimazole, econazole, ketoconazole, and sulconazole.[1]

World-wide periodic safety update reports have not detected any concerning safety trends.[3] Overall, the safety profile of sertaconazole appears to be similar to that of other U.S.-marketed topical antifungal agents.

Summary of Adverse Events in the U.S. Pivotal Trials

	Vehicle		Sertaconazole	
Overall	N = 291	50 (17%)	N=297	58 (19%)
SER-960602	N = 148	23 (15.5%)	N=151	25 (16.6%)
SER-960603	N = 143	27 (18.9%)	N=146	33 (22.6%)
Age <17	N = 18	4 (22%)	N=15	2 (13%)
Age 17-60	N = 260	45 (17%)	N=268	54 (20%)
Age >60	N = 13	1 (7%)	N=14	2 (14%)
Race				
Caucasian	N = 187	40 (21%)	N=185	41 (22%)
Black	N = 57	3 (5%)	N=60	11 (18%)
Other	N = 47	7 (15%)	N=52	6 (11.5%)
Body as a whole		1 (8%)		1 (10%)
Cardiovascular		2 (0.7%)		—
Digestive		3 (1%)		3 (1%)
Metabolic/Nutritional		3 (1%)		9 (3%)
Musculoskeletal		1 (<1%)		3 (1%)
Nervous		2 (0.7%)		2 (0.7%)
Respiratory		14 (5%)		15 (5%)
Skin		7 (2%)		7 (2%)
Urogenital		3 (1%)		5 (2%)
Symptoms				
Headache		8 (2.7%)		1 (3.7%)
Common Cold		10 (3.4%)		7 (2.4%)
Coughing		2 (0.7%)		—
Nasal Congestion		—		2 (0.7%)
Contact Dermatitis		—		2 (0.7%)
Urinary Tract Infection		2 (0.7%)		—
Severe Adverse Events				
Skin		2 (0.7%)		2 (0.7%)

Precautions/Contraindications[2]

Precautions

Sertaconazole 2% cream is for use on the skin only. If irritation or sensitivity develops with the use of sertaconazole 2% cream, treatment should be discontinued and appropriate therapy instituted.

Diagnosis of the disease should be confirmed either by direct microscopic examination of infected superficial epidermal tissue in a solution of potassium hydroxide or by culture on an appropriate medium.

Physicians should exercise caution when prescribing sertaconazole 2% cream to patients known to be sensitive to imidazole antifungals, since cross-reactivity may occur.

Contraindications

Sertaconazole 2% cream is contraindicated in patients who have a known or suspected sensitivity to sertaconazole nitrate or any of its components or to other imidazoles.

Special Populations[2]

Pregnancy

Category C. There are no adequate and well-controlled studies that have been conducted on topically applied sertaconazole 2% cream in pregnant women. Because animal reproduction studies are not always predictive of human response, sertaconazole 2% cream should be used during pregnancy only if clearly needed.

Nursing Mothers

It is not known if sertaconazole is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when prescribing sertaconazole 2% cream to a nursing woman.

Pediatric Use

The efficacy and safety of sertaconazole 2% cream have not been established in pediatric patients below the age of 12 years.

Geriatric Use

In clinical trials, there were an insufficient number of patients aged 65 and over to determine whether they respond differently relative to younger patients.

Patient Information

Use sertaconazole 2% cream as directed by the physician. The hands should be washed after applying the medication to the affected area(s). Avoid contact with the eyes, nose, mouth, and other mucous membranes. Sertaconazole 2% cream is for external use only.

Dry the affected area(s) thoroughly before application, if you wish to use sertaconazole 2% cream after bathing.

Use the medication for the full treatment for the full treatment time recommended by the physician, even though symptoms may have improved. Notify the physician if there is no improvement after the end of the prescribed treatment period, or sooner, if the condition worsens.

Inform the physician if the area of application shows signs of increased irritation, redness, itching, burning, blistering, swelling, or oozing.

Avoid the use of occlusive dressings unless otherwise directed by the physician.

Drug Interactions

Potential interactions between sertaconazole 2% cream and other drugs or laboratory tests have not been systematically evaluated.

Efficacy Measures

1. Physician's Global Evaluation of Clinical Response to Treatment. This outcome measure was based on the clinical status of interdigital tinea pedis and on information provided by the patient, and used the following scale:

1	Clinical Cure: Physician's Global Evaluation referring to normal appearance of the skin in all treated interdigital web spaces. Signs and symptoms associated with interdigital tinea pedis have completely resolved.
2	Effective Clinical Treatment: PGE referring to marked improvement over baseline in the signs and symptoms of interdigital tinea pedis. At most, mild residual erythema and/or scaling in all treated interdigital web spaces remain without other signs of interdigital tinea pedis.
3	Moderate Clinical Improvement: Most baseline signs and symptoms of interdigital tinea pedis have shown a definite decrease.
4	Mild Clinical Improvement or No Change: Some baseline signs and symptoms of interdigital tinea pedis have decreased. Significant evidence of disease remains.
5	Worsening of Clinical Status: Some baseline signs and symptoms of interdigital tinea pedis are more severe and/or new signs and symptoms are present.

2. Signs and Symptoms Grading Scale:

0 = absent (normal appearing skin)
1 = mild (barely abnormal)
2 = moderate (distinctly present abnormality)
3 = marked (intense involvement or marked abnormality)

3. Potassium hydroxide (KOH) microscopic examination of affected tissue for hyphae or mycelia

4. Culture of lesion tissue sample

Clinical Trials

Trials	**Protocols #SER-960602 and 960603, both entitled: A double-blind, randomized, vehicle-controlled, multi-center, parallel group evaluation of the efficacy and safety of sertaconazole 2% cream in patients with interdigital tinea pedis. Center for Drug Evaluation and Research, Application Number: 21-385, Medical Review. Available at: www.fda.gov/cder/foi/nda/2003/21-385_Ertaczo.htm.**
Study Goals	To compare the efficacy and safety of sertaconazole 2% cream versus a vehicle cream, applied twice daily for 4 weeks, in the treatment of patients with potassium hydroxide (KOH)-positive and culture-positive symptomatic interdigital tinea pedis.
Methods	**Study Design** These were 6-week, Phase 3, multicenter, randomized, double-blind, parallel group, vehicle-controlled studies of sertaconazole nitrate 2% cream in patients with interdigital tinea pedis. Per-Protocol analysis and Modified intent-to-treat analysis (all randomized patients who had positive baseline KOH and culture, and who were dispensed treatment) with last observation carried forward and missing values treated as failures. **Primary Efficacy Variable:** *Complete Cure* (complete resolution of all signs and symptoms, and negative KOH and culture) at the 6-week Point of Cure (2 week after last treatment). **Secondary Efficacy Variables:** (1) *Effective Treatment* (minimal residual clinical signs and symptoms, Global = 1 or 2; negative KOH and negative culture) at the 6-week Point of Cure (2 weeks after last treatment). (2) *Mycological Cure* (negative KOH and negative culture) at the 6-week Point of Cure. **Additional Efficacy Variables:** (1) *Time Point Analyses* at visits 2 to 5 of the proportion of patients who demonstrated Successful Treatment Outcomes, Physician's Global Evaluation, mycological cure rate, and clinical signs and symptoms by item. (2) *Subgroup Analyses* by study center, pathogen, gender, race, and age.
Criteria	**Inclusion criteria** ❋ At least 12 years of age ❋ Males or non-pregnant, non-nursing females ❋ Presence of interdigital tinea pedis on one or both feet characterized by clinical evidence of a tinea infection between the toes (at least moderate erythema and moderate scaling plus at least mild pruritis). ❋ A confirmatory microscopic demonstration of fungal elements and growth of fungus using baseline skin scrapings obtained from the interdigital site most severely affected. **Exclusion criteria** ❋ Received no non-approved treatments, foot or shoe powders, topical anti-fungal therapy to the feet within 14 days of study entry (30 days for terbinafine, butenafine, and naftifine), oral anti-fungal therapies within 3 months of study entry (8 months for oral terbinafine), systemic antibiotic or corticosteroid treatment, topical corticosteroids within 30 days of study entry, radiation therapy and/or anti-neoplastic agents within 1 year of study entry. ❋ Known sensitivity to any components of the test medications or hypersensitivity to imidazoles. ❋ A disease or condition that compromised the evaluation of the therapeutic response of interdigital tinea pedis to treatment. ❋ Foot psoriasis, corns and/or callus involving any interdigital web spaces, atopic or contact dermatitis. ❋ Received an investigational drug within 30 days prior to study enrollment. ❋ Infected with tinea pedis of such severity that entry into this study would not have been appropriate (such as extremely severe, incapacitating cases) ❋ Widespread dermatophytoses, moccasin type interdigital tinea pedis, onychomycosis (on the evaluated foot), mucocutaneous candidiasis, or bacterial skin infection.

Results

Patient Characteristics (All randomized patients)

Characteristic	SER-960602 (N = 299)	SER-960603 (N = 289)
Age, mean (SE), y	36.4 (0.80)	34.1 (1.14)
Sex (Male / Female)	73.6% / 26.4%	74.7% / 25.3%

Baseline Pathogen (Total patients in each clinical trial)

Pathogen	SER-960602 (N = 191)	SER-960603 (N = 206)
T. rubrum	155 (81.2%)	160 (77.7%)
T. mentagrophytes	17 (8.9%)	38 (19.1%)
E. floccosum	18 (9.8%)	8 (4.0%)
T. kanei	1 (0.5)	0 (0.0)

There were no apparent treatment differences in either study in the number of withdrawals or reasons for withdrawal.

Efficacy Results – Modified Intent-To-Treat (MITT)

SER-960602

	Vehicle	Sertaconazole	p-value
Efficacy Measure			
Complete Cure	3/92 (3.3%)	13/99 (13.1%)	0.0101
Effective Treatment	11/92 (12.0%)	32/99 (32.3%)	0.0010
Mycological Cure	18/92 (19.6%)	49/99 (49.5%)	<0.0001
Mycological Cure by Baseline Pathogen			
T. rubrum	15/77 (19.5%)	38/78 (48.7%)	0.0002
T. mentagrophytes	2/7 (28.6%)	5/10 (50.0%)	0.6221
E. floccosum	1/8 (12.5%)	6/10 (60.0%)	0.0656

SER 960603

	Vehicle	Sertaconazole	p-value
Efficacy Measure			
Complete Cure	5/103 (4.9%)	28/103 (27.2%)	<0.0001
Effective Treatment	16/103 (15.5%)	52/103 (50.5%)	<0.0001
Mycological Cure	20/103 (19.4%)	71/103 (68.9%)	<0.0001
Mycological Cure by Baseline Pathogen			
T. rubrum	15/78 (19.2%)	60/82 (73.2%)	<0.0001
T. mentagrophytes	5/20 (25.0%)	10/18 (55.6%)	0. 0960
E. floccosum	0/5 (0.0%)	1/3 (33.3%)	0.3750

In both trials, statistically significant treatment differences were seen only for *T. rubrum* in the subgroup analyses by baseline pathogen. Even when results of both studies were pooled, significance was reached only for males, Caucasians, and *T. rubrum.*

Analyses of complete cure and mycologic cure by week in both trials revealed that complete cure had not reached statistical significance after 4 weeks of treatment. Complete cure rate reached statistical significance only at week 6, the Point of Cure. Mycological cures were higher at week 4 than at week 6 for vehicle (~30%–35% vs. ~15%–20%) and sertaconazole (~60%–75% vs. ~50%–70%).

Conclusions

For the efficacy end point Complete Cure, both trials have demonstrated a small but statistically significant effect over vehicle. For secondary end points Effective Treatment and Mycological Cure, statistical significance was also reached.
The proposed labelling was for *T. rubrum*, *T. mentagrophytes*, and *E. floccosum*, but the data presented only showed statistically significant efficacy for *T. rubrum.* The labelling should reflect that there is insufficient data to demonstrate efficacy for *E. floccosum* and for *T. mentagrophytes*, particularly since there is no in vitro data supporting susceptibility of these two species to sertaconazole.

Critique

Randomization appeared adequate but methods of randomization and concealment of allocation were not reported. The MITT population is smaller than the all-randomized population by about 29% to 36% (N = 191 vs. 299 for SER-960602 and N = 206 vs. 289 for SER-960603); therefore the measured treatment effect in the MITT analysis may overestimate the actual effectiveness of the drug.

Title	**Alomar C, Bassas S, Casas M et al. Multi-centre double-blind trial on the efficacy and safety of sertaconazole 2% cream in comparison with miconazole 2% cream on patients suffering from cutaneous mycoses. *Arzneimittelforschung* 1992;42:767-73.**
Study Goals	To study the clinical efficacy of sertaconazole 2% cream in the treatment of superficial cutaneous mycoses in comparison with miconazole 2% cream. The secondary objective was to confirm the safety and tolerability of sertaconazole obtained in the Phase I and II trials.
Methods	**Inclusion Criteria:** ❋ Patients of both sexes and aged between the ages of 18 and 70, who were suffering from a superficial skin infection of mycotic aetiology, were considered eligible. ❋ Confirmed dermatomycosis by microscopic examination and culture test. **Exclusion Criteria:** ❋ Pregnant women ❋ Patients with a history of hypersensitivity of azolic products administered topically ❋ Patients who had used systemic antimicrobial or antifungal drugs during the four weeks preceding the trial. ❋ Patients suffering from onychomycosis, tinea capitis, or pityriasis versicolor or any mycotic infection in which, because of its severity, could not be treated solely by topical medication. **Assessment Criteria:** ❋ Clinical assessment–based on the appearance of the lesion and accompanying symptoms, disease activity was scored according to the following categories: much worse, worse, the same, better, much better, clinically cured. Relapse was considered to be active infection in the treated area at ❋ Microscopic assessment (KOH smear) ❋ Microbiological assessment–sequential cultures ❋ Safety and Tolerance
Results	631 patients were included, 62 patients were withdrawn from the trial. Thus, 295 complete cases remained for analysis in the sertaconazole group and 274 for the miconazole group. **Patient Characteristics at Baseline:** Reported to be evenly distributed between treatment groups; however, data were not reported. **Reasons for Withdrawal**

Causes	Sertaconazole (N = 317)	Miconazole (N = 314)	Significance
Treatment Failure	2	17	P<0.003
Follow-up loss	9	16	N.S.
Adverse Drug Reaction	2	4	N.S.
Concomitant Disease	3	0	N.S.
Others	6	3	N.S.
Total	**22**	**40**	**P<0.005**

The distribution of the various forms of presentation of mycosis (tinea barbae, tinea corporis, tinea cruris, tinea manuum, tinea pedis, and other) was similar between the two treatment groups except perhaps for tinea pedis. (Calculated rates are shown below because the reported rates do not match with the apparent denominators reported—358 forms for sertaconazole, 334 forms for miconazole, 692 forms total. Distribution for tinea pedis is similar if the rates are re-calculated.):

Clinical presentation (Tinea pedis)
Sertaconazole 91 (23.9% [*sic*]) of 692 total forms [Calculated 25.4% of 358 forms]
Miconazole 75 (10.8%) of 692 total forms [Calculated 22.4% of 334 forms]

Efficacy Results

Clinical Assessment	Sertaconazole	Miconazole	P-value
Clinically Cured (day 28, end of treatment)	83.4%	77.1%	<0.05
Relapse (day 35, 2 wk after last treatment)	13 (4.4%)	33 (11.9%)	0.001

(Number of patients analyzed for each efficacy analysis was not reported.)

Comparison of the negative result of the microscopic examination during the follow-up of the two groups

Check-up	Sertaconazole	Miconazole	P-value
3rd visit (day 14)	86.8%	79.2%	0.017
5th visit (day 28)	98.3%	94.2%	0.0097
6th visit (day 35)	98.0%	95.7%	NS

❋ (Number of patients analyzed was not reported.)

Results (cont'd)	**Safety and Tolerance** ❋ All blood analytical parameters remained within normal parameters for both treatment groups throughout the entire trial. ❋ Dermal tolerance: Contact dermatitis was seen in 5 miconazole and no sertaconazole patients. ❋ Most common local adverse events were erythema and pruritis, but were considered to be of little clinical significance and did not cause any withdrawals from the trial. ❋ No systemic adverse reaction during the trial ❋ No severe general undesirable effects observed
Conclusion	Sertaconazole presents with better therapeutic efficacy than miconazole, because of its high rate of clinical and microbiological cure and its better tolerance. Comparing the results obtained in this trial on sertaconazole with those obtained for other antifungal products, sertaconazole has also proved to be more efficacious and safer in dermatomycoses.
Critique	Method of allocation concealment was not reported. Primary efficacy variable was not specified. ITT analysis was not performed. Unable to determine baseline characteristics of study population.

Other Clinical Trials

Three dose comparison studies[4-6] demonstrating effectiveness and safety of sertaconazole (1% versus 2% cream) in the treatment of pityriasis versicolor,[5] superficial mycoses due to *Candida albicans*,[6] and cutaneous dermatophytosis[4] have been published in English but are not included in this review. Another trial showing a lack of sensitizing capacity of sertaconazole relative to bifonazole, clotrimazole, econazole, ketoconazole, and miconazole has also been published but is not reviewed here.[7] Hypersensitivity reactions have been uncommonly associated with sertaconazole in clinical trials, as noted under Adverse Events above.

In addition, a number of multicenter, double-blind randomized controlled trials have been published in foreign languages and described in an English review article.[1] According to the review, sertaconazole 2% cream was similar in efficacy to clotrimazole 1% cream and sulconazole 1% cream in cutaneous dermatophytoses, and sertaconazole 2% gel was "clinically superior" to ketoconazole 2% gel for seborrheic dermatitis. In the treatment of vulvovaginal candidiasis, vaginal tablets of sertaconazole were superior to clotrimazole in obtaining complete clinical cure; sertaconazole 2% vaginal cream was similar to miconazole 2% vaginal cream in terms of clinical and mycologic cure and recurrence; and sustained-release vaginal ovules of sertaconazole were at least as effective as econazole in terms of clinical cure or relapse rates.

Acquisition Costs

The non-FSS price of sertaconazole 2% cream (30 grams) is $37.70. The FSS acquisition cost of sertaconazole 2% cream was not available. The lowest VA cost of the four formulary topical antifungal cream products in ascending order are as follows: miconazole $1.06 (30 gm), clotrimazole $1.11 (30 gm), terbinafine $9.73 (24 gm), and ketoconazole $9.97 (30 gm).

Data Compilation Tables

Number-needed-to-treat (NNT) for sertaconazole vs. vehicle

	Vehicle	Sertaconazole
Complete Cure at 6 wk	8 / 195 (4.1%)	43 / 202 (21.3%)
Absolute Risk Reduction (95% CI)	17.2% (10.9–23.5)	
NNT (95% CI)	6 (4–9)	

Based on combined Data from pivotal trials (SER-960602 and SER-960603) assessing the primary endpoint after 4 weeks of treatment

Conclusion

Sertaconazole topical cream is safe and well tolerated. Based on limited data, its efficacy is similar to that of miconazole for tinea pedis. For cutaneous mycoses, it is moderately more efficacious than miconazole and seems to be similar in efficacy to clotrimazole and sulconazole. It is also superior to vehicle in the treatment of tinea pedis. However, the treatment differences between sertaconazole and either miconazole or placebo are not robust. The FSS cost of sertaconazole was not available, but is expected to be higher than the VA cost of available formulary agents. Since there are five formulary topical antifungals with a wider range of indications or formulations, there does not appear to be any role for sertaconazole cream in the VA.

Recommendations

In the absence of any compelling advantages of sertaconazole over the formulary topical antifungals in terms of efficacy, safety, tolerability, or pharmaceutical formulations, it is recommended that this agent remain nonformulary at the National and VISN levels.

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