Practice Trends Skin & Allergy News • March 2005

# POLICY & PRACTICE

#### **Actinic Keratoses Screening**

Elderly patients with actinic keratoses (AK) are six times more likely to develop skin cancer than are those without AK, according to study (Dermatol. Surg. 2005;31:43-7). The research demonstrates that patients who have experienced a lot of sun exposure should be evaluated for AK at the first sign of any suspicious skin abnormality, said Rhoda S. Narins, M.D., president of the American Society for Dermatologic Surgery. Researchers examined more than 25,000 subjects using Medicare survey and claims data. The

sample was 88% white and 60% female with a mean age of 78 years. "Although individual AK lesions do not uniformly develop into skin cancer, the presence of AK significantly increases the risk of skin cancer, including melanoma," Phillip M. Williford, M.D., coauthor of the study and a dermatologic surgeon at Wake Forest University, Winston-Salem, N.C., said in a statement. "This elevated risk was unmatched by any other variable we analyzed and, overall, older white males with AK seem to be at very high risk," according to Dr. Williford.

#### **Psoriasis Advocacy**

A newly formed advocacy group is calling on Congress to increase federal research for psoriasis and psoriatic arthritis. "Psoriasis Cure Now!" aims to educate law-makers, opinion leaders, and the general public about the need for more research and the importance of patient access to the full range of treatments for the disease. Michael Paranzino, a psoriasis patient for more than 20 years, launched the group. "Congress will be disturbed to learn that for a full decade, 6.5 million of its constituents with psoriasis and psoriatic arthritis have been shortchanged in federally funded research," Mr. Paranzino

said in a statement. "It is unconscionable that psoriasis research has languished throughout the biggest increase in biomedical research funding in world history." Psoriasis research at the National Institute of Arthritis and Musculoskeletal and Skin Diseases has declined from \$4.7 million in 1995 to \$4.1 million in 2004, even as funding for other diseases has increased, according to the group. The group launched a Web-based petition to Congress that is available online at www.psorcurenow.org.

#### MedPAC: Give Doctors a 2.7% Hike

Medicare should increase physician payments by 2.7% in 2006 to keep pace with the cost of providing care, the Medicare Payment Advisory Commission recommended. Such an increase will help physicians continue to treat Medicare patients, John C. Nelson, M.D., president of the American Medical Association, said in a statement. "Unless Medicare payments keep up with the cost of providing care, there is a real concern that some physicians will be forced to stop taking new Medicare patients," he said. However, unless Congress fixes a flaw in Medicare's physician payment formula, doctors face a 5% cut next year and cumulative cuts of 30% thru 2012. Several MedPAC commissioners supported the idea of taking outpatient or Part B drugs from the formula, although the Government Accountability Office has warned that this solution would not prevent several years of declines in physician payments.

# **Fatigue and Driving Don't Mix**

Tired residents on the road are more likely have automobile accidents, according to a Web-based survey of 2,737 residents in their first postgraduate year (N. Engl. J. Med. 2005;352:125-34). Investigators found that in any month, each extended work shift increased the risk of any motor vehicle crash by 9% and increased the risk of a crash on the way home from work by more than 16%. Those who worked five or more extended shifts in a month were also more likely to fall asleep behind the wheel. "These results have implications for medical residency programs, which routinely schedule physicians to work more than 24 consecutive hours," the researchers said. The respondents had completed more than 17,000 monthly reports that provided detailed information about work hours, work shifts of an extended duration, documented motor vehicle crashes, near-miss accidents, and incidents involving involuntary sleeping.

## **Compensation for Vaccine Injuries**

The National Vaccine Injury Compensation Program (VICP) will now cover injuries related to the hepatitis A vaccine. Those who believe they've been injured by the vaccine must file a claim within 3 years of the first symptom of the vaccine injury or within 2 years of the vaccine-related death, but not more than 4 years after the start of the first symptom of the vaccine-related injury from which the death occurred. Administered by the Health Resources and Services Administration, VICP provides financial compensation to eligible individuals thought to be injured by vaccines.

—Mary Ellen Schneider

# CENTANY (MUPIROCIN OINTMENT), 2%

#### DESCRIPTION

Each gram of Centany (mupirocin ointment), 2% contains 20 mg mupirocin in a soft white ointment base consisting of castor oil, oleyl alcohol, hard fat (Softisan® 378) and propylene glycol monostearate. Mupirocin is a naturally occurring antibiotic. The chemical name is (E)-(2S,3R,4R,5S)-5-[(2S,3S,4S,5S)-2,3-Epoxy-5-hydroxy-4-methylhexyl]tetrahydro-3,4-dihydroxy- $\beta$ -methyl-2  $\mathcal{H}$ -pyran-2-crotonic acid, ester with 9-hydroxynonanoic acid. The molecular formula of mupirocin is  $\rm C_{26}H_{44}O_{9}$  and the molecular weight is 500.63. The chemical structure is:

#### **CLINICAL PHARMACOLOGY**

Following the application of Centany (mupirocin ointment), 2% to a  $400~\text{cm}^2$  area on the back of 23 healthy volunteers once daily for 7 days, the mean (range) cumulative urinary excretion of monic acid over 24 hrs following the last administration was 1.25% (0.2% to 3.0%) of the administered dose of mupirocin. The monic acid concentration in urine collected at specified intervals for 24 hrs on Day 7 ranged from <0.050 to 0.637  $\mu$ g/mL.

**Microbiology:** Mupirocin is an antibacterial agent produced by fermentation using the organism *Pseudomonas fluorescens*. Its spectrum of activity includes gram-positive bacteria. It is also active, *in vitro* only, against certain gram-negative bacteria. Mupirocin inhibits bacterial protein synthesis by reversibly and specifically binding to bacterial isoleucyl transfer-RNA synthetase. Due to this unique mode of action, mupirocin does not demonstrate cross-resistance with other classes of antimicrobial agents.

When mupirocin resistance occurs, it results from the production of a modified isoleucyl-tRNA synthetase or the acquisition, by genetic transfer, of a plasmid mediating a new isoleucyl-tRNA synthetase. High-level plasmid-mediated resistance (MIC > 500 mcg/mL) has been reported in increasing numbers of isolates of *Staphylococcus aureus* and with higher frequency in coagulase-negative staphylococci. Methicillin resistance and mupirocin resistance commonly occur together in *Staphylococcus aureus* and coagulase-negative staphylococci.

Mupirocin is bactericidal at concentrations achieved by topical administration. However, the minimum bactericidal concentration (MBC) against relevant pathogens is generally eight-fold to thirty-fold higher than the minimum inhibitory concentration (MIC). In addition, mupirocin is highly protein bound (>97%), and the effect of wound secretions on the MICs of mupirocin has not been determined.

Mupirocin has been shown to be active against susceptible strains of *Staphylococcus* aureus and *Streptococcus pyogenes*, both *in vitro* and in clinical studies. (See **INDICATIONS AND USAGE.**)

#### INDICATIONS AND USAGE

Centany (mupirocin ointment), 2% is indicated for the topical treatment of impetigo due to: Staphylococcus aureus and Streptococcus pyogenes.

#### CONTRAINDICATIONS

This drug is contraindicated in individuals with a history of sensitivity reactions to any of its components.

#### WARNINGS

Centany (mupirocin ointment), 2% is not for ophthalmic use.

#### PRECAUTIONS

If a reaction suggesting sensitivity or chemical irritation should occur with the use of Centany (mupirocin ointment), 2%, treatment should be discontinued and appropriate alternative therapy for the infection instituted.

As with other antibacterial products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Centany (mupirocin ointment), 2% is not formulated for use on mucosal surfaces. Centany (mupirocin ointment), 2% is not intended for nasal use.

Information for Patients: Use this medication only as directed by your healthcare provider. It is for external use only. Avoid contact with the eyes. The medication should be stopped and your healthcare practitioner contacted if irritation, severe itching or rash occurs. If impetigo has not improved in 3 to 5 days, contact your healthcare practitioner.

OrthoNeutrogena

Rx only For Dermatologic Use

**Drug Interactions:** The effect of the concurrent application of Centany (mupirocin ointment), 2% and other drug products is unknown.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals to evaluate carcinogenic potential of mupirocin have not been conducted.

Results of the following studies performed with mupirocin calcium or mupirocin sodium in vitro and in vivo did not indicate a potential for genotoxicity: rat primary hepatocyte unscheduled DNA synthesis, sediment analysis for DNA strand breaks, Salmonella reversion test (Ames), Escherichia coli mutation assay, metaphase analysis of human lymphocytes, mouse lymphoma assay, and bone marrow micronuclei assay in mice.

Reproduction studies were performed in male and female rats with mupirocin administered subcutaneously at doses up to 14 times the human topical dose (approximately 60 mg mupirocin/day) on a mg/m² basis and revealed neither evidence of impaired fertility nor impaired reproductive performance attributable to mupirocin.

#### Pregnancy

#### Teratogenic Effects

Pregnancy Category B: Reproduction studies have been performed in rats and rabbits with mupirocin administered subcutaneously at doses up to 22 and 43 times, respectively the human topical dose (approximately 60 mg mupirocin per day) on a mg/m² basis and revealed no evidence of harm to the fetus due to mupirocin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Centany (mupirocin ointment), 2% is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of Centany (mupirocin ointment), 2% have been established in the age range of 2 months to 16 years. Use of Centany (mupirocin ointment), 2% in these age groups is supported by evidence from adequate and well-controlled studies of Centany (mupirocin ointment), 2% in impetigo in pediatric patients studied as a part of the pivotal clinical trials. (See CLINICAL STUDIES.)

#### ADVERSE REACTIONS

The following local adverse reactions have been reported in connection with the use of Centany (mupirocin ointment), 2%; application site reactions and pruritus, each in 1% of patients; contact dermatitis and furunculosis, each in 0.7% of patients; and exfoliative dermatitis and rash, each in 0.3% of patients.

# DOSAGE AND ADMINISTRATION

A small amount of Centany (mupirocin ointment), 2% should be applied to the affected area three times daily. The area treated may be covered with a gauze dressing if desired. Patients not showing a clinical response within 3 to 5 days should be re-evaluated.

# CLINICAL STUDIES

The efficacy of topical Centany (mupirocin ointment), 2% in impetigo was tested in one study. Patients with impetigo were randomized to receive either Centany (mupirocin ointment, 2%) or Bactroban® Ointment (mupirocin ointment, 2%) t.i.d. for 7 days. Clinical efficacy rates at the follow-up visit (one week after end of therapy) in the evaluable populations (adults and pediatric patients included) were 94% for Centany (mupirocin ointment, 2%) (n=233) and 95% for Bactroban® Ointment (mupirocin ointment, 2%) (n=242). Pathogen eradication rates at follow-up for both medications were 98%.

#### Pediatrics

There were 413 pediatric patients aged 2 months to 15 years in the clinical study described above. Clinical efficacy rates at follow-up in the evaluable populations were 93% for Centany (mupirocin ointment, 2%) (n=199) and 95% for Bactroban® Ointment (mupirocin ointment, 2%) (n=214).

#### HOW SUPPLIED

Centany (mupirocin ointment), 2% is supplied in 15 gram (NDC 0062-1610-01) and 30 gram (NDC 0062-1610-03) tubes. Store at controlled room temperature  $20^\circ$  to  $25^\circ$ C (68° to  $77^\circ$ F).

# OrthoNeutrogena

Distributed by: OrthoNeutrogena, Division of Ortho-McNeil Pharmaceutical, Inc. Skillman, New Jersey 08558 ©OMP 2003 Issued May, 2003 Printed in USA

635-10-686-1 I4730NG-2