



Medical Education and Research Grant Outcome Report

Name: Topical Honey for Diabetic Foot Ulcers

Principal Investigator: Jennifer J. Eddy, MD

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Department: Family Medicine

Program: New Investigator Program

Grant Duration: 04-01-2006 to 03-31-2009 (36 month)

Expenditures: \$76,069 (76%)

Use of Funds (Taxonomy): Clinical Research

Research Keywords: diabetes, foot ulcer, amputation, honey, neuropathy

► **Description:** Almost 24 million people in the United States have diabetes and 15-25 percent of them will develop foot ulcers at some point in their lives, sometimes requiring amputation. The project investigated the effectiveness of topical honey in treating diabetic foot ulcers through a pilot study of both the effectiveness of honey treatments and the feasibility of a larger multi-center study.

► **Contributions/Results:** The investigators completed the study protocol on 12 patients, fewer than the 30 intended. The investigators were therefore unable to assess the effectiveness of honey as a treatment for diabetic foot ulcers. The successful completion of the study protocol on 12 patients, however, suggests that the protocol could be implemented in a trial in high-volume clinics.

In addition, the project achieved some broad public health goals. The investigators recruited a nurse, who developed expertise and accreditation in treating diabetic feet and is now a valuable resource in Western Wisconsin, both educating medical personnel and the public about diabetic foot care. In addition, as part of this effort, she has instituted free foot care and education at the Chippewa Valley Free Clinic, where she has served over 70 uninsured diabetic patients. The screening process for this project provided important diagnostic information for patients, even if they were not eligible to participate.

► **Met Objectives:** Incomplete at this time.

► **Timeline for Application of Results:** Less than three years.

► **Matched Dollars (cash or in-kind):** \$30,000 from the American Academy of Family Physicians

► **New Partnerships or Collaborations:** This project benefitted from a collaborative partnership between Dr. Jennifer Eddy, Department of Family Medicine at the UW School of Medicine and Public Health (SMPH), Pat Lange, RN, MSN, and Dr. Mack, a local podiatrist and Clinical Associate Professor at the SMPH.

► **Dissemination:**

- **Articles:** (1) Eddy JJ, Price T. Diabetic Foot Care. JFP 2009; 58(12)646-653. (2) Eddy JJ, Gideonsen MD, Mack G. Practical Considerations of Using Topical Honey for Neuropathic Diabetic Foot Ulcers: A review. WMJ 2008; 107(4) 187-190.
- **Oral Presentations:** 1st International Conference on the Medicinal Uses of Honey; Grand Rounds at Sacred Heart Hospital in Eau Claire, WI and at Ho-Chunk Nation Medical Center in Black River Falls, WI; Western Wisconsin Diabetes Association; Wisconsin Honey Producers conference; UW Institute for Clinical and Translational Research (ICTR) Northern Regional Research Council
- **Poster Presentations:** 35th North American Primary Care Research Group Conference; Wellness Conference for Ho-Chunk Nation; ICTR; Wisconsin Research and Education Network Conference
- **Media:** News and e-Magazine articles, including LA Times, Milwaukee Journal Sentinel, Isthmus, and On Wisconsin; Radio interviews, including Wisconsin Public Radio; Television coverage, including Wisconsin Public Television and NBC News Eau Claire; Research video by the UW SMPH Department of Family Medicine.

► **Additional Funding:** None.