World Alliance for Wound and Lymphedema Care Abstract Submission

Title: The Diabetic Foot-The Unique Role for Podiatry in the Developing World

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Abstract: With the expected worldwide prevalence of diabetes expected to increase from 2.8% in 2000 to 4.4% in 2030 (171 million to 360 million), the well documented complications associated with the diabetic foot will become more pronounced especially in the developing world. It has been reported that up to 25% of diabetics develop a foot ulcer during their lifetime, and that 85% of lower extremity amputations are preceded by ulceration. It is also well documented that the five year survival rate after a lower extremity amputation is less than 50%. The role of the podiatric physician has become paramount in the fight to prevent amputations and thereby save lives worldwide. This need is even more magnified in developing countries, as the availability of podiatric care is negligible.

The role of the podiatric care and formal diabetic foot programs has been well documented. The Thomson Rueters Study examined the outcomes of care (amputations and hospitalizations) in diabetic patients that received podiatric care prior to foot ulceration and those that did not receive podiatric care prior to foot ulceration. The results among population aged 18–64 patients with foot ulcer showed those seen previously by a podiatrist had a 20% lower risk of amputation and a 26% lower risk of hospitalization compared with patients not previously seen by a podiatrist. Additionally, $1 invested in care by a

podiatrist results in $27 to $51 of savings in total health care costs. The results for population aged 65+ patients with foot ulcer revealed those seen by a podiatrist had a 23% lower risk of amputation and a 9% lower risk of hospitalization compared with patients not previously seen by a podiatrist. In this group, each $1 invested in care by a podiatrist results in $9 to $13 of savings in total health care costs.

In a study from Duke University, the conclusion stated "Individuals with lower extremity complications (LEC) had high mortality. Visiting both a podiatrist and an LEC specialist in the year before LEC diagnosis was protective of undergoing lower extremity amputation, suggesting a benefit from multidisciplinary care."

The Step by Step Haitian Diabetic Foot program is being established in Port-au-Prince, Haiti at the Hospital Bernard Mevs Porject Medishare Wound Care Center. This program is evidence based medicine based on best clinical practice to establish an amputation prevention program and thereby save Haitian lives. This program is being developed by the authors in conjunction with the wound care program established by John M. Macdonald MD, FACS (medical director wound care center HBMPM). This program has the potential to severe as a model for the role of podiatric medicine in the care of the diabetic foot in the developing world.

References:

1. **Sloan FA, Feinglos MN, Grossman DS. Receipt of care and reduction of lower extremity amputations in a nationally representative sample of U.S. Elderly. Health Serv Res. 2010 Dec; 45(6 Pt 1):1740-62.**

2. **Carls GS, Gibson TB, Driver VR, Wrobel JS, Garoufalis MG, Defrancis RR, Wang S, Bagalman JE, Christina JR. The Economic Value of Specialized Lower-Extremity Medical Care by Podiatric Physicians in the Treatment of Diabetic Foot Ulcers. J Am Podiatr Med Assoc. 2011 Mar-Apr; 101(2):93-115.**
3. **Wild S, Roglic G, Green A, Sicree R, King H. Global prevalence of diabetes: estimates for the year 2000 and projections for 2030. Diabetes Care. 2004 May; 27(5):1047-53.**
4. **Rogers LC, Bevilacqua NJ. Organized programs to prevent lower-extremity amputations. J Am Podiatr Med Assoc. 2010 Mar-Apr; 100(2):101-4.**