

New Sock for Diabetic Foot Care

EuroSocks North America (Warwick, RI) has introduced Euros RX for diabetics. Developed in collaboration with a team of physicians, the patent-pending dual-tone technology design comes in white and dark dress sock colors, with a white sole to allow diabetics to easily monitor the condition of their feet.

“Beyond the typical drug store variety of diabetic socks, the Euros Rx for diabetics really works with how people live. No one wants to wear white socks every day, even though doctors like myself prefer them for people with diabetes,” said Dr. Richard Reuter, a diabetic foot and ankle specialist. “Now, with a dark top and white bottom, the socks are more attractive to patients for consistent — rather than occasional — use.”



The constriction-free socks feature woven arch support, a mild ankle brace, padded terry soles and a flat-knit toe seam. The patented white bottom design enables easy detection of wound drainage or bleeding.

“Doctors were so impressed with patient satisfaction with our compression socks ability to stimulate blood flow, increase circulation, reduce muscle fatigue and alleviate foot and leg swelling, that they requested we make a constriction-free line that addresses the special needs of diabetic foot care,” said EuroSocks Chairman and CEO, Alan M. Jacober in a company news release.

Euros RX products are currently available at podiatrists and vascular surgeons’ offices. For more information, please visit www.eurosocks.com.

Study Shows Glycomark Blood Test as Effective Monitor

A *Diabetes Care* study found that the Glycomark (Kannapolis, NC) blood test — which measures a unique monosaccharide, 1,5-anhydroglucitol — is the most robust reflection of postprandial hyperglycemia compared to HbA1c and fructosamine. The study also showed that although HbA1c levels were similar in patients, the Glycomark assay found that postmeal glucose levels varied significantly among the test group.

The study, by Kathleen Dungan, MD and colleagues from the University of North Carolina and the University of Rochester, showed that although the current gold standard diabetes test, HbA1c, may still indicate adequate control of glucose levels — after-meal glucose levels may still be elevated.

“1,5-AG was reflective of varying postmeal glucose levels, despite similarities in HbA1cs,” the authors said. “In clinical practice A1c and 1,5-AG may be used sequentially, first utilizing the HbA1c assay to identify patients who are moderately or well-controlled, and then using the 1,5-AG assay to determine the extent of postprandial glucose excursions.”

These results underscore the utility of the Glycomark assay to monitor postprandial hyperglycemia. By providing an average consistent measure of post-meal glucose levels over the prior 1 to 2 weeks with one single blood test value, Glycomark may be useful in monitoring thera-

pies targeting postprandial hyperglycemia.

For more information on Gylcomark, please visit www.glycomark.com.

Patent Awarded for Glucose-Sensing Microchip

Digital Angel (St. Paul, Minn) has been granted a patent for its syringe-implantable glucose-sensing RFID microchip. The RFID microchip measures the glucose concentration levels of diabetic patients and will be marketed and distributed by Digital Angel’s sister company, Verichip (Delray Beach, Fla).

“A glucose-sensing microchip could profoundly impact the 230 million people worldwide who are living with diabetes,” said Digital Angel CEO, Kevin McGrath, in a news release.

The implantable biosensor chip has a passive transponder, glucose sensor and integrated circuitry that allow anyone implanted with the microchip to painlessly scan it to determine the level of glucose concentration. The RFID microchip quickly and accurately transmits the glucose data back to a wireless scanner that displays the glucose level. The RFID microchip is powered by the scanner signal, avoiding the need for a battery.

“This is a landmark development,” said Joseph Feldman, MD, chairman of the emergency/trauma department of Hackensack University Medical Center. “The current process for monitoring blood sugar levels is

painful, cumbersome and discouraging. By having this technology, the process becomes effortless. This glucose-sensing RFID microchip is the next great step in implantable microchip technology.”

For more information on the microchip, please visit www.DigitalAngelCorp.com.

Natural Extract Improves Glucose Response

Patients with diabetes can see improved glucose response with Beta Fast GXR (Informula; Omaha, Neb), a standardized *Gymnema sylvestre* extract used to promote healthy glucose metabolism.

Gymnema sylvestre is an herb used for type 2 diabetes. The leaves are used in herbal medicine preparations, and when chewed, they interfere with the ability to taste sweetness — thus giving the herb the name “destroyer of sugar.”

Beta Fast GXR Glucose Balance is a concentrated, extended-release *Gymnema* supplement, which during clinical study reduced the average preprandial glucose concentrations by 11% in patients. The supplement also lowered the 2-hour postprandial plasma glucose concentrations, by 13% (207 vs 180mg/dL). The study concluded that *Gymnema sylvestre* supplementation appears to improve glycemic control in patients with type 2 diabetes. It also reduced the postprandial glucose significantly, thus causing a decrease in HbA1c.

Beta Fast GXR Glucose Tolerance provides concentrated, chemically analyzed, standardized *Gymnema sylvestre* extract with chromium picolinate, to promote cellular insulin sensitivity and vitamin C, for improved absorption.



Medicinal Gum to Deliver Metformin

Generex Biotechnology Corporation (Toronto) has been granted the first patent for its medicinal gum platform titled Compositions for Oral Transmucosal Delivery of Metformin. The patent covers claims to the composition, processes, and methodologies for the delivery of an oral transmucosal metformin composition via the oral mucosal membrane for absorption.

Metformin is a generic drug used to regulate glucose

levels by reducing the amount of glucose produced by the liver, and by making the insulin produced by the body work more effectively to reduce the amount of glucose already in the blood. The patent, relates to an oral transmucosal metformin composition comprising a pharmaceutically acceptable carrier being capable of delivering effective amounts of metformin to the diabetes patient for absorption.

Eli Lilly to Fund Children Diabetes Program

The Riley Children’s Foundation (Indianapolis) will receive a \$10 million gift from the Eli Lilly and Company Foundation (Indianapolis) that will serve as a transformational catalyst needed to establish a world-class pediatric diabetes treatment and care program at Riley Hospital for Children.

Lilly’s gift will be used to recruit internationally recognized diabetes specialists who will establish a preeminent program in pediatric diabetes research. The gift will also help to establish the Eli Lilly and Company Center for Pediatric Diabetes at the Riley Hospital for Children and the Indiana research programs at Riley and Indiana School of Medicine. The center encompasses the basic scientific research programs at Riley and IU. In addition, a facility within the clinical care program will provide education and care to the families of children with type 1 diabetes. The facility will accommodate nursing, nutrition, medical, social work staff and ancillary services.

Ora Pescovitz, MD, president and CEO of Riley Hospital, says Lilly’s gift marks the turning point for diabetes research and care. “We are working to create an internationally renowned diabetes treatment care and research program at Riley. With the generosity of the Eli Lilly and Company Foundation, we are now closer to realizing our vision of making momentous advances in how we diagnose, treat and even prevent pediatric diabetes.

Colesevelam Reduces HbA1c in Insulin Users

Data presented at the American Heart Association’s Scientific Sessions 2006 demonstrated that colesevelam (Welchol; Daiichi Sankyo, Parsippany, NJ), when added to insulin in uncontrolled patients with type 2 diabetes, improved glycemic control. This is the first study to evaluate colesevelam in combination with insulin, and it

demonstrated HbA1c reductions of 0.5% compared with placebo (-0.41% vs 0.09%, $P < .001$). The same HbA1c effect was demonstrated in a smaller colesevelam study presented at the American Diabetes Association annual scientific sessions in June 2006.

The study involved 280 patients with HbA1c between 7.5% and 9.5% (mean baseline HbA1c was 8.3%). Following a 2-week, single-blind, placebo run-in, subjects were randomized to receive either colesevelam (3.75 g/day) or placebo. Daily mean insulin use was similar for both groups at baseline and subjects continued to take their existing oral antihyperglycemic medications.

The 16-week randomized, double-blind, placebo-controlled study demonstrated a substantial mean reduction in lipid parameters as compared to placebo, including LDL reductions in the colesevelam group of 12.8%, apo B reductions of 5.3%, and apo A-1 level increases of 2.3%. The inclusion of colesevelam in the treatment regimen did not affect hypoglycemic events, or cause patients weight gain.

"Every physician who treats diabetes is looking to lower HbA1c as effectively as possible, resulting in a constant lookout for improved combinations of therapy," said Ronald B. Goldberg, MD, lead study investigator and professor of medicine at the Diabetes Research Institute of Miami, Miller School of Medicine. "The same can be said for LDL. As a result, a compound that can help lower both of these important cardiovascular risk factors, can be of great benefit for many patients."

Generex Announces Clinical Data on Oral Insulin

Generex Biotechnology (Toronto), an innovator of drug delivery systems, announced clinical data from a trial of Generex Oral-lyn, an oral insulin spray product.

The study, which compared the effects of two forms of prandial insulin in patients with type 1 diabetes, showed that patients who used both Oral-lyn and mealtime injections of regular insulin achieved near normalization of metabolic control. They also showed a continuous improvement in fructosamine and HbA1c concentrations.

In the study, 11 patients in the control group received two daily injections of basal isophane insulin (NPH) and three premeal injections of regular insulin. Fourteen subjects in the treatment group received two daily injections of NPH and three split-dose applications of Generex Oral-lyn.

This is the same format that will be used for the company's late-stage, long-term trial of 300 patients in 2007. ■

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