

MODULE 1: What You Can't Feel Can Hurt You

David Herrmann, MD & Alicia Gotcsik, CO, CPED

Program Description

This module includes a discussion of the clinical features and diagnosis of diabetic distal symmetrical polyneuropathy (DSN). The consideration of the differential diagnosis of DSPN, the appropriate work-up and management options will be covered. The second speaker will explain the mechanisms of injury/symptoms of complications of the neuropathic foot in the setting of ulceration, Charcot Arthropathy and amputation. Orthotic treatment protocols for the insensate foot including diabetic wounds, Charcot Arthropathy and partial foot amputations will be reviewed.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Diagnose diabetic distal symmetric polyneuropathy (DSPN) and differentiate it from other forms of diabetic neuropathy and other causes of distal symmetric polyneuropathy.
- Learn about management options for DSPN and treatment outcomes.
- Have a better understanding of treatment protocols for complications of the diabetic foot.
- Help understand the mechanisms of injury of the insensate foot/ offer prevention tips to patients.

Bibliographic Sources to Allow for Further Study

- Pop-Busui, R et al. Diabetic Neuropathy: A Position Statement by the American Diabetes Association. *Diabetes Care* 2017;40:136–154.
- Callaghan BC et al. Diabetes and obesity are the main metabolic drivers of peripheral neuropathy. *Annals of Clinical and Translational Neurology* 2018; 5(4): 397–405.
- American Orthopaedic Foot/Ankle Society: Diabetic Foot Overview. [http://legacy.aofas.org/footcaremd/conditions/diabetic foot](http://legacy.aofas.org/footcaremd/conditions/diabetic%20foot).
- American Diabetes Association: The Charcot Foot in Diabetes. <http://care.diabetesjournals.org>.

Accreditation

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No commercial funds have been received to support this educational activity.

Planning Committee / Speaker Disclosures

The following speakers have disclosed financial interests/arrangements or affiliations with organization(s) that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation(s). Only the current arrangements/interests are included.

*Planning Committee Members

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Planner declared that no financial interest or relationship exists

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Planner declared that no financial interest or relationship exists

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Planner declared that no financial interest or relationship exists

Planner declared Consultant for Sensionics and Speakers' Bureau for Medtronic Diabetes

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MODULE 2: Diabetic Kidney Disease – A Protean Dilemma

George Bakris, MD, MA

Program Description

Fewer people with diabetes today are progressing to dialysis compared to 30 years. Moreover, the rate of annual decline in kidney function is slower by 70% compared to 1980. Lastly, newer classes of drugs shown to lower glucose have also shown a further slowing of CKD progression in diabetes.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Describe the latest statistics regarding diabetic kidney disease progression.
- Identify newer guideline approaches to achieve BP and glucose control to slow CKD progression.

Bibliographic Sources to Allow for Further Study

- ADA Clinical Practice Guidelines-Diabetes Care 2019 (Suppl1).
- Dojki, F. K. and Bakris GL. Blood Pressure Control and Cardiovascular/Renal Outcomes. *Endocrinol Metab Clin North Am* 2018; 47(1): 175-184.

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*Planning Committee Members

George Bakris, MD

Speaker declared Steering Committee for Janssen and Novo Nordisk and Principal Investigator for Bayer of Diabetic Nephropathy Trials with all monies going to the University of Chicago Medicine. Also Steering Committee for Vascular Dynamics for Resistant Hypertension trial with all monies going to the University of Chicago Medicine. Also declared Consultant for Merck Global

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MODULE 3: Avoiding Hypoglycemia – The Rate-Limiting Factor in Diabetes Treatment

Lloyd Axelrod, MD

Program Description

This module will review the causes, pathogenesis, consequences and management of hypoglycemia in diabetic patients.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Recognize the clinical manifestations of hypoglycemia in diabetic patients including hypoglycemia unawareness.
- Modify management to prevent and, when present, treat hypoglycemia in diabetic patients.

Bibliographic Sources to Allow for Further Study

- Cryer PE, Axelrod L, Grossman AB, et al. Evaluation and Management of Adult Hypoglycemic Disorders: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* 2009; 94: 709-728.
- Seaquist ER, Anderson J, Childs B, et al. Hypoglycemia and Diabetes: A Report of a Workgroup of the American Diabetes Association and The Endocrine Society. *J Clin Endocrinol Metab* 2013; 98: 1845-1859.

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Lloyd Axelrod, MD

Speaker declared that no financial interest or relationship exists

Tamara Eis, MS, RN-BC*

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MODULE 4: Diabetic Retinopathy – Current Diagnosis and Management with an “Eye” to the Future

David DiLoreto, MD, PhD

Program Description

This update will summarize the historical treatments of diabetic retinopathy, what the current treatment for diabetic retinopathy currently are, and what the future may hold.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Describe the laser treatment of diabetic retinopathy.
- Explain the intravitreal pharmacologic treatment of diabetic retinopathy.

Bibliographic Sources to Allow for Further Study

- Diabetic Retinopathy Clinical Research Network. Expanded 2-year Follow-up of Ranibizumab Plus Prompt or Deferred Laser or Triamcinolone Plus Prompt Laser for Diabetic Macular Edema. *Ophthalmology*. 2011 Apr;118(4):609-14.
- Diabetic Retinopathy Clinical Research Network. Panretinal Photocoagulation vs Intravitreal Ranibizumab for Proliferative Diabetic Retinopathy: A Randomized Trial. *JAMA*. 2015; 314(20):2137-2146. doi: 10.1001/jama.2015.15217 (Published). (*Manuscript*)

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MODULE 5: Which Treatments for Diabetes? Getting to the “Heart” of the Matter

Cecilia Low Wang, MD

Program Description

Cardiovascular disease accounts for much of the mortality and significant morbidity in patients with type 2 diabetes. Data supporting cardiovascular risk reduction from diabetes drugs had not been convincing until the 2008 FDA Guidance mandating robust cardiovascular safety data for new glucose-lowering drugs led to large cardiovascular outcome trials that have demonstrated cardiovascular risk reduction with 2 new classes of diabetes drugs. We now have new diabetes drugs with indications for cardiovascular risk reduction in patients with established cardiovascular disease, with new promise for lowering cardiovascular events and mortality significantly for our patients. I will describe the highlights of key trials now incorporated into recent statements and guidelines from leading professional societies, with practical management recommendations.

Learning Objectives

At the conclusion of this activity, participants should be able to:

- Describe key aspects of the recent history of diabetes drug approval by the FDA.
- Outline a practical approach to selection of glucose-lowering drugs in patients with cardiovascular disease.

Bibliographic Sources to Allow for Further Study

- Marso SP, et al. Liraglutide and cardiovascular outcomes in type 2 diabetes. *N Engl J Med* 2016;375(4):311-322.
- Davies, MJ, Management of hyperglycemia in type 2 diabetes. 2018. A consensus report by the ADA and EASD. *Diabetes Care* 2018;41(12):2669-2701.

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