

Curriculum Content Report – Type One Diabetes

Diabetes, type one diabetes, ketoacidosis, insulin

PC B1b5, PC B8f, EN B1, EN B1a, EN B1a1, EN B1a4, EN B1a4a, EN B1a5, EN B1a5a,
EN B1b, GI B2b15, GI B7, EN A2e

Prepared 9/6/19 by David Taylor, MS3

Year 1	
Cellular and Molecular Medicine	<p>-Integration of metabolism: learning objectives include recognizing the presentation of Type I diabetes, discussing diagnostic criteria for Type I diabetes, describing alterations in glucose transport in patients with Type I diabetes, differentiating between Type I and Type II diabetes, recognizing the presentation of ketoacidosis, and describing long-term complications from poorly controlled glucose levels</p> <p>-Insulin & glucagon: learning objectives include explaining the use of C-peptide in measuring insulin secretion, describing the role of insulin in controlling glucose homeostasis, and describing various insulin analogues used in the treatment of diabetes</p> <p>-Lipid catabolism: learning objectives include predicting the consequences of high blood glucose on the activity of fatty acid processing and describing the process of ketone body formation and utilization</p>
Medical Physiology	<p>-The Pancreas: Insulin, Glucagon and Diabetes: lecture objectives include identifying source and action of insulin, describing cellular mechanisms activated by insulin at its target cells, and identifying symptoms of diabetes and distinguishing Type I from Type II</p>
Doctoring I: Case-Based Learning	<p>-Debra Davenport Case: Learning Issues for this case include defining types and causes of diabetes, management of a diabetic patient (including diet and exercise), and chronic complications of diabetes</p>
Year 2	
Medical Pharmacology	<p>-Pharmacotherapy of Diabetes Mellitus One: student learning objectives include reviewing basic pathophysiology of type I diabetes, learning the four major types of insulin preparation, understanding the difference between basal and bolus insulin therapy, and exploring the benefits and major adverse effects of insulin therapy</p>

Pathology	-Diabetes, Environment, and Nutrition: Topics covered include clinical definitions of diabetes, classic signs and symptoms of diabetes and histology of pancreatic islet cells in type I diabetes
Medical Microbiology and Immunology	-Autoimmunity 1 & 2: learning objectives include defining autoimmunity and compare and contrast the basic pathologic mechanisms of types II, III, and IV autoimmune disorders (including type I diabetes, a type IV disorder) -Opportunistics/Anaerobes: discussion of various pathogens from which patients with diabetes are more susceptible to acquiring infection -Pseudomonas: discussion of predilection of acquiring bacteremia from Pseudomonas in patients with immunocompromising conditions
Clinical Neuroscience	-Peripheral Neuropathies and Plexopathies: discussion of peripheral neuropathies pathophysiology, including differentiating between large and small fiber neuropathies, and diabetes being responsible for 1/3 of polyneuropathies
Doctoring II	-SP Case 8: patient presenting with fatigue, and diabetes is included as a potential differential diagnosis -SP Case 9: patient presenting with a peripheral neuropathy with diabetes being the underlying diagnosis; discussion about long-term complications and differences between Type I and Type II diabetes are done
Year 3	
Transitions to Clinical Clerkship	Diabetes Patient Workshop: Students are required to participate in a diabetes patient workshop, with a variety of components including self-testing blood sugar and practicing subcutaneous injections with saline
Community Medicine Clerkship	Required diagnosis; glucose test finger stick required procedure; diabetic foot exam required procedure
Family Medicine Clerkship	Required diagnosis
Internal Medicine Clerkship	Endocrine conference; Endocrine disorder required diagnosis; multisystem disorder required diagnosis
Obstetrics/Gynecology Clerkship	Pregestational Diabetes (seen in high risk clinic sub-rotation and in endocrinology of pregnancy lectures)
Pediatrics Clerkship	Diabetes mellitus required diagnosis; covered in pediatric endocrinology lecture

Junior RPCT Primary Care Clerkship

Glucose test finger stick required procedure