

Joint Event

18<sup>th</sup> Annual Congress on  
**Pharmaceutics & Drug Delivery Systems | Diabetes & Nursing Care**  
 June 27-28, 2019 | Amsterdam, Netherlands

## Understanding diabetes beyond numbers: complications and comorbidities

Diabetes is a growing global health concern that affects all age groups and genders. Analysts predict a worldwide prevalence of 552 million people with diabetes by 2030. Uncontrolled diabetes can lead to acute complications, including but not limited to, hypoglycemia, hyperglycemia, diabetic coma, diabetic ketoacidosis, and diabetic non-ketotic hyperosmolar coma. Recurrent ongoing hyperglycemia can lead to chronic complications. These complications occur due to a mix of microangiopathy, macrovascular disease, and immune dysfunction. Microangiopathy can affect all vital organs, including the kidneys, heart, and brain, as well as eyes, nerves, lungs, and local gums and feet. Macrovascular problems can lead to cardiovascular disease, stroke, and peripheral vascular disease leading to gangrene and amputation. The damaging effects of hyperglycemia on the vasculature significantly contribute to diabetes complications and comorbidities. Between 30% and 50% of all diabetic patients have some organ damage, which can potentially progress to long-term complications. Hyperglycemia is toxic, whether it occurs early or later in life, and regardless of its etiology. Comorbidities compound the chronic complications of diabetes. These include smoking, obesity, high blood pressure, and/or elevated cholesterol levels. Additionally, there are many other complications of diabetes which are not recognized and often remain unaddressed, such as diabetic dermopathy, osteoporosis, sleep apnea, musculoskeletal impairments, gastroparesis and dental problems, mental health issues, and vitamin deficiencies. Type 2 diabetes has been disproportionately increasing in minority populations. Non-Caucasian populations such as Hispanics, African Americans, and Asians are much more likely to develop type 2 diabetes and less likely to have effective control. Certain ethnic populations have a higher risk of complications from diabetes than others. In addition to the societal and humanistic effects, the management of diabetes and its complications has substantial economic impact. If diabetes is undetected or its complications are poorly managed, patients can experience a poor health-related quality of life with significant morbidity and mortality, so optimal prevention and treatment strategies are necessary. Adequate and sustained control of blood sugar levels can prevent or delay the onset of diabetes-related complications. However, effective interventions, at both the individual and population levels, are desperately needed to slow the diabetes epidemic and reduce the burden of diabetes-related complications.



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### Biography

Nuzhat Chalisa is a Clinical Endocrinologist practicing in Chicago IL for past 20 years. She has started her career in United States as a Research Assistant in Hepatology with Dr. David Vanthiel at Loyola University Medical Center in Chicago IL. She has completed her Internal Medicine training at Loyola university Hospital in Chicago. She obtained her fellowship in Endocrinology Diabetes and Metabolism at the Rosalind Franklin University of Health Sciences. Her primary interest has been in the area of Diabetes. Her experience crosses between research and clinical practice. Some of her initial research was on age related cognitive decline in diabetics and continuous glucose monitoring. She was then focused on clinical practice for few years. She has been interviewed and have published several articles on Diabetes in local newspapers and journals and has been a Speaker in several international diabetes conferences. She is a Philanthropist at heart and the Founder and President of a Diabetes nonprofit organization. Main mission of her organization is to prevent diabetes complications through early screening and education. She is actively involved with multiple community awareness programs and clinics in Chicago area. She is a Fellow of American College of Endocrinology.

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