

# Preface

## Rationale for Inpatient Management of Hyperglycemia

The number of people with diabetes mellitus continues to increase at an alarming rate. It is estimated that the number of individuals diagnosed with diabetes worldwide will be approximately 366 million by the year 2030. With this rapidly growing group of people diagnosed with diabetes, it is not surprising that the proportion of individuals admitted to the hospital with diabetes as a comorbidity is elevated as well. Additionally, a significant number of patients without a prior diagnosis of diabetes will develop hyperglycemia during hospitalization.

In recent years, there has been an evolution in the management of hospitalized patients with hyperglycemia. Inconsistent clinical trial results urged experts in the field to reconsider the targets of control warranted in hospitalized patients. However, despite some of the existent controversy generated by these clinical trial results, most experts agree that hyperglycemia in the hospitalized patient cannot be ignored and that appropriate management continues to be critical.

One of the major issues addressed during the controversy was the potential deleterious effect of tight glycemic control (80–110 mg/dL [4.4–6.1 mmol/L]) in both critically and noncritically ill patients and those at risk for hypoglycemia. Based on the fact that some of these studies failed to demonstrate significant improvement in mortality in the intensive care unit patient and some showed a possible increase, it is clear that the controversy continues and glycemic targets should be reconsidered in order to avoid potential patient harm. However, it is our hope, and the hope of many experts in the field, that patients admitted to the hospital with a history of diabetes and those with newly developed hyperglycemia will be carefully monitored and treated.

The most recent consensus statement on this topic from the American Diabetes Association and the American Association of Clinical Endocrinologists addressed the current evidence both against and in favor of glycemic control in hospitalized patients and recommended that therapy should be initiated in critically ill patients with persistent hyperglycemia, starting with a threshold of no greater than 180 mg/dL (10 mmol/L) and, once insulin is started, therapy should target a glucose range of 140–180 mg/dL (7.8–10 mmol/L). For noncritically ill patients, the glucose

target should generally be a fasting glucose of less than 140 mg/dL (7.8 mmol/L) and random glucose of less than 180 mg/dL (10 mmol/L), providing that these goals can be achieved safely.

The goal of this book is to provide a very useful and practical resource for health-care providers who treat hyperglycemia in the inpatient setting. The authors have included a practical approach to different scenarios that occur while treating patients with hyperglycemia, such as patients receiving enteral nutrition. Additionally, the book serves as a comprehensive guide to all aspects of inpatient glycemic control, such as the initiation of insulin, treatment of hypoglycemia, and the transition of care to the outpatient setting. The ultimate goal of the contributors is to improve the quality of care and quality of life of our patients with diabetes and those with hyperglycemia in the inpatient setting.

Finally, the editors would like to acknowledge Dr Corsino for her idea of writing a book that provides guidance to healthcare providers taking care of patients with hyperglycemia in the inpatient setting and for making this book a reality. In addition, the editors would like to thank our contributors for their hard work and for their continued efforts to improve the care of patients with diabetes.

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