

**Abstract**

**Review Article**

## **Perioperative Management of Adult Patients with Diabetes Mellitus**

**Panagiota Copanitsanou, RN, BSc, MSc, PhD**

Staff Nurse in Orthopaedic Clinic, General Hospital of Piraeus "Tzaneio", Greece

**Chryssoula Dafogianni, RN, BSc, MSc, PhD**

Assistant Professor of Nursing in Nursing Department of Technological Education of Athens, Greece

**Styliani Iraklianiou, MD, PhD**

Consultant, Diabetologist General Hospital of Piraeus "Tzaneio", Greece

**Correspondence:** Copanitsanou Panagiota, Zanni & Afentouli 1, 18536, Piraeus, Greece

E-mail address: giwta\_c@hotmail.com

**Abstract**

**Background:** Diabetic patients often undergo surgeries due to diabetes complications.

**Objective:** The critical appraisal of studies regarding the perioperative diabetes management.

**Methodology:** A database search (Pubmed, Cinahl, Cochrane), with the keywords "diabetes", "surgery", "perioperative management", "operation", "adult surgical patient" and a manual search were conducted. The criteria for the inclusion of articles in the review included studies relating to the glycemic control management for diabetic adults who undergo surgery.

**Results:** Diabetes' perioperative management is better performed by a multidisciplinary team, in order for the needs of each patient to be covered holistically and individually. There are no evidence-based guidelines for the optimal perioperative management of diabetic patients. Patients who achieve good glycemic control with proper diet and exercise may not need supplemental perioperative care, in addition to monitoring of blood glucose. In type 2 diabetes and good glycemic control by oral antidiabetics, these are usually continued postoperatively with the first meal. The insulinotherapy in type 1 diabetes is not interrupted, but there are variations concerning the optimal doses. Administration of insulin intravenously can be a great way to manage diabetes perioperatively.

**Conclusions:** There is controversy in the literature regarding the ideal values of blood glucose, the influence of the glycated hemoglobin values on recovery, and the insulin administration regimens. However, there is agreement on issues such as that diabetic patients should be placed first on the operating list, the routine monitoring of blood glucose, the effectiveness of insulin pumps and the resumption of food intake as soon as possible postoperatively.

**Key words:** diabetes, surgery / surgery, perioperative period, management of diabetes mellitus