

DIABETES MELLITUS IN TRANSPLANT RECIPIENTS

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Background: Solid organ transplantation has substantially improved patient survival and quality of life. Nevertheless, post-transplant diabetes mellitus (PTDM) remains one of the most common metabolic complications following transplantation and is associated with increased morbidity and mortality. The 2022 International Consensus Meeting provided updated recommendations for the definition, diagnosis, and management of PTDM.

Methods: A literature review of English-language publications indexed in PubMed over the past 10 years was performed to evaluate the incidence of PTDM, associated risk factors, diagnostic criteria, and principles of prevention and clinical management.

Results: Transplant recipients may present with several glycemic disturbances, including pre-transplant diabetes, transient post-transplant hyperglycemia, new-onset diabetes after transplantation, and PTDM. Reported incidence rates range from 10% to 40%. Risk factors include modifiable determinants—such as perioperative hyperglycemia, sedentary lifestyle, infections, hypomagnesemia, and immunosuppressive therapy—as well as non-modifiable factors including older age, ethnicity, family history of diabetes, genetic predisposition, deceased donor grafts, male sex, HLA microcompatibility, and polycystic kidney disease. Diagnostic criteria mirror those used for diabetes mellitus in the general population and include fasting plasma glucose, 2-hour postprandial glucose, oral glucose tolerance testing, and HbA1c.

Conclusions: Screening strategies recommend avoiding the diagnosis of PTDM during the first 45 days following transplantation. Between days 46 and 365, diagnosis may rely on OGTT, fasting plasma glucose (>7 mmol/L), random plasma glucose (>11.1 mmol/L), postprandial glucose (>11.1 mmol/L), or HbA1c (>6.5%). After one year post-transplantation, diagnostic evaluation should include OGTT, HbA1c, and fasting or random plasma glucose measurements.

Keywords: diabetes mellitus, post-transplantation diabetes mellitus, risk factors, diagnostic criteria.