

Euro Diabetes 2019: Time to optimal glycaemic control and prognostic factors among type 2 diabetes mellitus patients in public teaching hospitals in Addis Ababa, Ethiopia- Tigist W Leulseged- St. Paul's Hospital Millennium Medical College

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Background: Diabetes is a chronic, advancing disease characterized by high levels of blood glucose. Diabetes that is poorly managed leads to serious complications and early death. The spread of diabetes has been increasing over the past few decades. Ethiopia is one of African countries with the highest number of people living with diabetes. Studies conducted in Ethiopia and other countries mainly focused on level of glycaemic control at one point in time. Studies targeting the time that a patient stayed in a poor glycaemic level are lacking. Type 2 diabetes is the very most common type of diabetes these days. Initially, high blood glucose level is the result of the inability of the body's cells to respond fully to insulin, a situation termed 'insulin resistance'. Type 2 diabetes may be a longstanding metabolic turmoil that is pictured by, insulin resistance, high aldohexose and relative absence of insulin. Simple aspect effects incorporate expanded thirst, incessant pee, and unexplained weight reduction. Signs could likewise incorporate swollen desire, feeling tired, and bruises that don't recuperate. Regularly indications go ahead gradually. Complexities from high aldohexose incorporate strokes, diabetic retinopathy which can bring about visual impairment, kidney problems, and poor blood stream which may prompt removals. Type 2 diabetes is mostly preventable by continuing a typical weight, practicing consistently, and eating legitimately. Treatment includes activity and dietary alterations. Numerous individuals may in the end likewise require insulin infusions. In that on insulin, routinely check glucose levels is exhorted, in any case this may not be required in taking pills. Bariatric surgery of times enhances diabetes within the people UN agency. Diabetes mellitus may be a upsetting and metabolic disorder, expected to affect over 500 million people worldwide by the year 2030; up from 350 million in 2010. Approximately 96% of patients suffer from type 2 diabetes, and its prevalence is expected to increase in the future. Type 2 diabetes mellitus (T2DM) is an important medical and social problem.

Objectives: To expected time to initial optimal glycaemic control and to identify prognostic aspects among type 2 diabetes mellitus - T2DM patients in Ethiopia public teaching hospitals.

Methods: A hospital based retrospective chart review study was conducted from April to July 2018 at diabetes clinic of Addis Ababa's public teaching among randomly selected sample of 685 charts of type 2 diabetes mellitus patients who were on follow up from January 1 2013 to June 30 2017. Data was collected using pretested data abstraction tool. Data was checked, coded and entered to Epi-Info V.7.2.1.0 and exported to SPSS V.23.0 and STATA V.14.1 for analysis. Descriptive statistics is presented with frequency tables, Kaplan Meier plots and median survival times. Association was done using Log-rank test and Cox proportional hazard survival model, where hazard ratio, P-value and 95% CI for hazard ratio were used for testing significance and interpretation of results.

Results: Average time to first optimal glycaemic control among the study population was 9.5 months. The major factors that affect it are age group (HR=0.635, 95% CI: 0.486-0.831 for 50-59 years, HR=0.558, 95% CI: 0.403-0.771 for 60-69 years and HR=0.495, 95% CI: 0.310-0.790 for ≥ 70 years), diabetes neuropathy (HR=0.502, 95% CI: 0.375-0.672), more than one complication (HR=0.381, 95% CI: 0.177-0.816), hypertension (HR=0.611, 95% CI: 0.486-0.769), dyslipidemia (HR=0.609, 95% CI: 0.450-0.824), cardiovascular disease (HR=0.670, 95% CI: 0.458-0.979) & hospital patient treated at (HR=1.273, 95% CI: 1.052-1.541).

Conclusions: Average time to first optimal glycaemic control among type 2 diabetes mellitus - T2DM patients is MORE than expected which imply that patients are being open to more risk of complication and death.

Keywords: Type 2 diabetes mellitus, time to optimal glycaemic control, prognostic factor, retrospective chart review, survival analysis, Cox PH model, Ethiopia.