REG. NO: D7635654-AFINJ

JOHP-ISSN:2348-7704

HEB

JOHP

Journal of Hospital Pharmacy
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled As Health-Education, Bureau)

# A Study on Cardiovascular Risk Estimation by ASCVD Risk Estimator Application in Type 2 Diabetes Patients and Statin Assessment in an Asian Population

Fathimathusuhara Shahul[1*], Anu V Babu[2], Roshal Mary Rodrigues[3], Jeny Samuel[4], Joison Abraham[5], Boby Johns.G[6]

1*, 2, 3, 4,6. Department of Pharmacy Practice/ Department of Pharmaceutics, St. Joseph's college of pharmacy, Cherthala, Kerala

5. Department of General Medicine, Lourdes Hospital, Ernakulam

**Email Id:** serviceheb@gmail.com

**ABSTRACT**

Cardiovascular diseases (CVDs) are causes for many deaths throughout the world. Development of portable technology combined with the high prevalence of CVDs motivated the development of the ASCVD Risk Estimator by the American Heart Association/American College of cardiology. The aim of our study was to estimate the atherosclerotic cardiovascular disease (ASCVD) risk of type 2 diabetes mellitus patients in the general medicine department of a tertiary care teaching hospital using the ASCVD Risk Estimator plus Application. The major objectives were to calculate the risk score for statin therapy in type 2 DM patients and to suggest appropriate statin therapy if required according to the ASCVD risk calculated. The study was carried out in general medicine department in a tertiary care teaching hospital. It was a prospective observational study conducted in type 2 DM patients between the age of 40-79years. Statistical analysis was performed by the chi-square test, with calculation of p-value. We identified Fourty four (44%) patients classified as at high ASCVD risk. The main risk factors in the high risk group were age group greater than or equal to 70 years (n = 17; 100%), male sex (n =38 ; 51%) and smoking (n =23 ; 60.52%). Out of total population 29.3% were given appropriate statin therapy and 70.7% were not, according to ACC/AHA guidelines and shown significant p-value less than 0.001. The study proved that by calculating ASCVD Risk Scores for patients we can recommend correct statin therapy and thereby improve patient outcome.

**KEY WORDS:** Cardiovascular diseases, Risk Factors, Diabetes mellitus, Statins

| **Access this Article Online** | Quick Response Code: |
|---|---|
| Website:http://www.journalofhospitalpharmacy.in | |
| Received on 2/09/2020 | |
| Accepted on 26/09/2020 © HEB All rights reserved | |