the long term complications one has to look out for. Patients with HbA1c consistently below 8% have a high risk of cardiovascular accidents and those above 8% are at a risk of neuropathy and retinopathy [13].

MGV calculated from HbA1c values represents the average glucose concentration over a period of 2-3 months, with maximum contribution of the glucose levels over the previous month [14]. An increase in 1% of HbA1c amounts to an increase in approximately 30mg/dl of blood glucose. Thus the impact of variation in plasma glucose would be more evident as mean plasma glucose values (MGV) from the patients point of view resulting in better appreciation of otherwise minor changes in HbA1c levels.

Epidemiological studies have shown that patients with better control are those who test more often [15] and the vice versa is also true [16]. In this regard, the use of Self Monitoring of Blood Glucose (SMBG) and Continuous Glucose Monitoring Systems (CGMS) would be ideal. Cost is the deterrent in the use of both SMBG and CGMS, making them unreachable for an average Indian [17]. An excellent surrogate that can be used in place of SMBG and CGMS is the estimation of HbA1c. The mean glucose values of SMBG predicted HbA1c values over 3 months [18]. Similarly, Nathan et al [19] demonstrated a very good correlation between mean glucose from CGMS and HbA1c. Thus, HbA1c is an important tool in the management of diabetes in the Indian set up.

In the present study, most frequent requests made along with HbA1c, were for FPG (171/239)[Table/Fig 2]. FPG [20] and PPPG [21] have been found to correlate well with HbA1c values. Currently, the association of HbA1c was strongest with RPG (r = 0.699, p <.0001), followed by FPG (r= 0.472; p<.0001) and PPPG (r = 0.328; p = .036). A casual PPPG most adequately predicted HbA1c as reported by Imad et al [22] and this can be used to intensify treatment. Avignon et a [23] reported a significant correlation of HbA1c with non fasting plasma glucose. The number of requests for RPG and HbA1c was small in our study (n = 27) and hence, the association needs to be reaffirmed in larger numbers. Nevertheless, in situations where frequent HbA1c estimations are not possible, RPG could be a good substitute.

Diabetic nephropathy can be detected by the simple determination of urinary microalbumin. We recorded a total of 515 requisitions for microalbumin. UmA may be found in hypertensive patients also. Hence, to evaluate UmA which is attributable to diabetes (they may have concurrent hypertension), we tabulated the cases in whom both HbA1c and UmA were asked (n = 256). This accounted for 49.71 % of the total UmA estimations (256/515). To simplify HbA1c values into more comprehensible MGV, MGV was used for categorization (Table 3). It can be observed that the prevalence of microalbuminuria is fairly the same (± 33 %) for MGV between 100 – 250 mg/dL (mean HbA1c: 5.66 – 8.36 %) and also in the group with MGV >300 mg/dL (mean HbA1c: 12.09 %). The group with MGV 251-300 mg/dL (mean HbA1c: 9.19%) showed 62.06 % of microalbuminuria. As the degree of hyperglycaemia increases, the propensity to develop nephropathy also increases [24]. The last group (MGV >300 mg/dL) must be the type 1 diabetes cases in whom, despite the high plasma glucose values, UmA is usually absent at diagnosis [25] or they may be the newly diagnosed type 2 patients in whom glycaemic control is yet to be initiated or the treatment regime has to be adjusted.

It is particularly important to note that, even in the tightly controlled group (MGV: 100-150 mg/dL; HbA1c: 5.66 %), the prevalence was 32.08 %. Of the 93 patients who had UmA, 58.06 % (54/93) showed UmA in the