We welcome any brief comments on articles published in the Journal or other information of interest to readers. Letters selected for publication that comment on published articles will be forwarded to the original authors of those articles. Final approval of letters to be published remains with the Editor. Please note that only letters of 300 words or less will be considered for publication. Please send your letter to: pjtdv@sun.ac.za or P.O. Box 19063, Tygerberg, 7505

Glucose levels after a meal- how important are they?

To the Editor: The Diabetes Control and Complications Trial[1] and the United Kingdom Prospective Diabetes Study[2] convincingly demonstrated the benefit of blood glucose control in type 1 and type 2 diabetes mellitus (DM) patients respectively. Following the findings of the aforementioned landmark trials, clinicians have focused the management of DM on the stringent control of blood glucose, i.e., attaining near-normoglycaemia.

The vast majority of clinicians base pharmacotherapy of hyperglycaemia on the objective parameters of fasting blood glucose, fructosamine and HbA_{1c}. However, there is increasing evidence supporting and emphasizing the importance of regulating glucose levels following the ingestion of a meal, i.e., postprandial hyperglycaemia.[3] The forthcoming discussion attempts to elucidate the potential role of PPH in diabetes mellitus.

Avignon *et al.*,[4] have demonstrated that postprandial plasma glucose levels were better predictors of glycaemic control, and correlated better with HbA_{1c} than fasting levels. Postprandial hyperglycaemia, like HbA_{1c}, has been correlated to retinopathy and nephropathy.[5,6,7] Additionally, PPH, even in the absence of marked fasting hyperglycaemia, is a recognized risk factor for coronary heart disease.[8] Bonora and Muggeo[9] reviewed the literature on postprandial hyperglycaemia and cardiovascular mortality between 1970 and 2001, and concluded that both postprandial and post-challenge blood glucose levels were directly related to cardiovascular disease independently of fasting blood glucose. Furthermore, the correction of fasting hyperglycaemia or HbA_{1c} or both, and not specifically postprandial hyperglycaemia, was not found to significantly reduce cardiovascular disease in type 2 DM patients. Manderson *et al.*,[10] investigated preprandial versus postprandial blood glucose monitoring in type 1 diabetic pregnant women and concluded that postprandial monitoring of glucose may significantly reduced the incidence of preeclampsia and neonatal triceps skinfold thickness compared with preprandial monitoring.

Kovatchev *et al.*,[11] studied postprandial glucose dynamics and associated symptoms in type 2 DM, and found that negative symptoms and cognitive consequences were higher during the postprandial rather than the fasting phase.

There is no evidence to support the management of postprandial hyperglycaemia alone,[12] however in the light of the current body of scientific evidence it may be plausible to attempt to normalise both fasting and postprandial glucose, as the potential benefits are significant. It must be noted that due to the complexity of diabetes mellitus, holistic management of the patients' glycaemic and lipid profiles and minimization of all relevant risk factors are crucial to minimize morbidity and mortality.

Naidoo P
Rambiritch V
Department of Pharmacology, UKZN, Westville Campus, KwaZulu-Natal

References

1. Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin dependent diabetes mellitus. *N Engl J Med* 1993; 329: 977-986.
2. UKPDS. Intensive blood glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). UK Prospective Diabetes Study (UKPDS) Group. *Lancet* 1998; 352: 837-853
3. Ceriello A. The possible role of postprandial hyperglycaemia in the pathogenesis of diabetic complications. *Diabetologia* 2003; 46 [Suppl 1]: M9-M16.
4. Avignon A, Radauceanu A, Monnier L. Nonfasting plasma glucose is a better marker of diabetic control than fasting plasma glucose in type 2 diabetes. *Diabetes Care* 1997; 20: 1822-1826.
5. Pettitt DJ, Knowler WC, Lisse JR, Bennett PH. Development of retinopathy and proteinurea in relation to plasma-glucose concentrations in Pima Indians. *Lancet* 1980; 2: 1050-1052.
6. Jarrett RJ, Keen H. Hyperglycaemia and diabetes mellitus. *Lancet* 1976; 2: 1009-1012.
7. Teuscher A, Schnell H, Wilson PW. Incidence of diabetic retinopathy and relationship to baseline plasma glucose and blood pressure. *Diabetes Care* 1988; 11: 246-251.
8. Donahue RP, Abbott RD, Reed DM, Yano K. Post challenge glucose concentration and coronary heart disease in men of Japanese ancestry. Honolulu Heart Program. *Diabetes* 1987; 36: 689-692.
9. Bonora E and Muggeo M. Postprandial blood glucose as a risk factor for cardiovascular disease in Type 2 diabetes: the epidemiological evidence. *Diabetologia* 2001; 44: 2107-2114.
10. Manderson JG, Patterson CC, Hadden DR, *et al.* Preprandial versus postprandial blood glucose monitoring in type 1 diabetic pregnancy: A randomized controlled clinical trial. *Am J Obstet Gynecol* 2003; 189: 507-512.
11. Kovatchev B, Cox DJ, Summers KH, Gonder-Frederick L, Clarke WL. Postprandial glucose dynamics and associated symptoms in type 2 diabetes mellitus. *The Journal of Applied Research* 2003; 3(4): 449-458.
12. Heine RJ, Dekker JM. Beyond postprandial hyperglycaemia: metabolic factors associated with cardiovascular disease. *Diabetologia* 2002; 45(4): 461-475. Abstract.

TEAM-based and TEAM-driven primary care service

To the Editor: We enjoyed the informative article by Kapp and Mash reporting on the role of the clinical nurse practitioner.[1] The role of the doctor and the clinical nurse practitioner (CNP) in the primary care clinic and health centre is an important area of research and discussion.

The themes identified by Kapp and Mash echo many of our own findings in interviews with primary health care nurses (the equivalent of CNPs) in North West Province.[2] We fully concur with the article's conclusions regarding the need to clarify the roles of the CNP and doctor, especially the family physician, in primary care clinics, which mirror our own conclusions from interviewing both nurses [2] and doctors.[3]

The term "doctor driven community health centres" [1] is interesting. This statement is clearly in response to the concept of a nurse-driven or nurse-led or nurse-based primary care service. These terms are often used in discussions about primary care.

Why do we use these terms in primary care? We do not see reference to a nurse-based hospital, a doctor-driven operating theatre or a nurse-led ICU.

Work in primary care, which includes first contact care and ambulatory care of chronic illness, is much too complex, busy and important to be referred to in these terms. Any health service and especially primary care is delivered by a team; the same is true for primary clinical care.

We suggest that we change the use of this terminology in primary care. Either we should stop referring to a service based on, directed by or driven by such and such a profession, or, if a correction of understanding is necessary, we should be explicit, referring to and promoting a TEAM-based and TEAM-driven service. That should guide our thinking as well as help health planners to see that quality primary care is delivered by well functioning teams.

Hugo JFM
University of Pretoria
Couper ID
University of the Witwatersrand

1. Kapp R, Mash RJ. Perceptions of the role of the clinical nurse practitioner in the Cape Metropolitan doctor-driven community health centres. SA Fam Pract 2004; 46(10): 21-25
2. Couper ID, Malete NH, Tumbo JM, Hugo JFM. The role of the visiting doctor in primary care clinics. SA Fam Pract 2003;45(6):11-16
3. Couper ID, Hugo JFM, Van Deventer W. The role of clinic visits: Perceptions of doctors. SA Fam Pract 2005 (Accepted for publication)