

## Context and comment on selected articles in this edition

In this last edition of JEMDSA for 2013, in an article entitled, *Clinical challenges in the co-management of diabetes mellitus and tuberculosis in southern Africa*, Reid, McFadden and Tsimba<sup>1</sup> place the challenges regarding the management of tuberculosis and diabetes in South Africa under the microscope in an important review on the topic.

This review reminds clinicians to remain on the look out for the development of tuberculosis in patients with diabetes mellitus, regardless of the type. The increased risk of tuberculosis in a patient with diabetes is a lifetime risk, although the risk is greater in younger patients. It is also noteworthy that poor diabetes control contributes to increased risk. Reid, McFadden and Tsimba<sup>1</sup> recommend that both sputum smear microscopy, as well as chest radiography, should be employed in the diagnosis of tuberculosis. This is contrary to the South African tuberculosis guidelines which discourage the routine use of chest radiography for this purpose. This review succinctly points out the many pitfalls that exist with regard to the drug management of tuberculosis in patients with diabetes. It should be noted that there is a higher rate of tuberculosis treatment failure in patients with diabetes, despite the fact that compliance with treatment is similar to that for non-diabetics. The authors of this review emphasise the importance of regular screening for tuberculosis in patients with diabetes, and vice versa, before antituberculous therapy is commenced in patients with newly diagnosed pulmonary tuberculosis. This recommendation needs to be considered when the guidelines for the management of diabetes in South African are due for review.

Technetium-99m was discovered in 1938, and has since become the most widely used medical radioisotope worldwide.<sup>2</sup> Normal follicular cells of the thyroid gland concentrate technetium-99m pertechnetate in the same way as radioactive iodine, although only the latter is organified and stored.<sup>3</sup> The uptake of iodine (and technetium-99m pertechnetate) is dependent on the availability of iodine in the diet which varies depending on the geographic region and over time. Humunyela, Kotze and Philotheou discuss the importance of periodical evaluation of the normal thyroidal uptake reference ranges in a population.<sup>4</sup> The authors established a very low uptake of technetium-99m pertechnetate in a euthyroid Namibian population, compared to the international norm, postulated to be owing to the wide availability of iodised salt in the study population.

The impact of long-term glucose control on cardiovascular complications in patients with type 2 diabetes continues to be controversial and hotly debated.<sup>5</sup> Boussageon et al<sup>6</sup> showed no benefit of intensive glucose-lowering treatment on all-cause mortality or deaths from cardiovascular causes in adults with type 2 diabetes in a recent landmark meta-analysis of 13 high-quality randomised control trials. Alarming, in this meta-analysis, a 19% increase in all-cause mortality and a 43% increase in cardiovascular mortality attributed to intensive glucose lowering could not be excluded. Giorgino, Leonardini and Laviola proposed several potential factors that might limit the potential benefit of intensive glucose lowering in patients with type 2 diabetes.<sup>5</sup> These factors consist of the inclusion of the "wrong patients", the impact of treatment for other risk factors, the adverse effect of glucose-lowering drugs, and potential drug-interactions resulting from complex regimens. It is also well established that impaired glucose tolerance (IGT) is a risk factor for the development of type 2 diabetes, as well as being an independent cardiovascular risk factor. Therefore, it is no surprise that Koegelenberg, Kruger, Towers and Schutte<sup>7</sup> in the study reported on in this issue could not demonstrate an association between a significant increase in glycated haemoglobin over a five-year period on surrogate measures of atherosclerosis in a black South African population. As the authors rightly pointed out, a different approach would be to identify a group of black South Africans with IGT and to study the adverse effects of IGT longitudinally. Such a study is long overdue.

Pinchevsky et al<sup>8</sup> report on the impact of the latest (2009/2010) Society for Endocrinology, Metabolism and Diabetes of South Africa guidelines on the management of type 2 diabetes in a tertiary diabetes clinic. The authors conclude that only 26% of patients achieved a haemoglobin A<sub>1c</sub> level of less than 7%, 46% a blood pressure target of < 130/80 mmHg, and 54% a low-density lipoprotein cholesterol level of < 2.5 mmol/l. Only 7.5% of patients achieved all three treatment goals in this clinic, one of the flagship public diabetes clinics in South Africa. Owing to a lack of data, the state of diabetes care at primary healthcare level across South Africa can only be imagined. On a sobering note, the authors conclude that the chasm between the target treatment goals and achieving these goals in practice is huge and unlikely to narrow soon. The results of this study raise at least two critical questions. Firstly, do we really know what the barriers are to quality diabetes care in the public sector

in South Africa? Equally important, what is being carried out to promote diabetes care and to raise awareness of the treatment guidelines at all levels of care? It was found that 40% of participating healthcare professionals across the spectrum possessed the Dutch Care Standard for diabetes, and only 16% of those who were familiar with the Care Standards reported working in complete accordance with them, in a recent study performed in the Netherlands.<sup>9</sup> Utilising strategies with which healthcare workers are familiar, and which have proved to be successful in the past (i.e. to model the care of diabetes and other noncommunicable diseases according to the human immunodeficiency virus/acquired immune deficiency syndrome care model), could work at primary healthcare subregional level in South Africa.<sup>10</sup>

Readers who are involved in the care of patients with osteoporosis and osteoporotic fractures (who of us are not?) should be encouraged to read Prof Stephen Hough's letter.<sup>11</sup> This letter follows in the wake of the hip fracture guidelines published in *JEMDSA* earlier this year, and introduces the exciting Capture the Fracture campaign of the International Osteoporosis Foundation and the 2Million is 2Many initiative of the American Society for Bone and Mineral Research. The gauntlet has been dropped and healthcare workers taking care of patients with fractures, both in the public as well as the private sector, are encouraged to consider ways of initiating a fracture liaison service. The websites referred to in the last reference of Prof Hough's letter are particularly informative and worth visiting.

I wish to thank our editorial team, our publisher and his dedicated team; our reviewers; those of you who submitted your precious manuscripts; and above all our readers for supporting *JEMDSA* for the past year, and in so doing ensuring that the journal goes from strength to

strength. Last, but not least, we would like to thank our advertisers for making it possible to produce a quality journal. I wish you all a happy festive season and a healthy and productive 2014!

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