

In this issue

President of the NZIMLS, Terry Taylor, shines a light on the premeditated strategy of some managers to employ BMLSc graduates as medical laboratory technicians rather than the scopes that they have trained hard for. This Issue's editorial advocates for solidarity within the profession for these new graduates and for those members who work in a technically advanced role but are frequently unrecognised or unrewarded. These practices are detrimental to the profession and have been highlighted to the top level of the Ministry of Health.

Cervical cancer is one of the leading causes of death among women worldwide including the Pacific Island Countries and Territories (PICT). Sharita Meharry and her colleagues at Auckland University of Technology and Fiji National University discuss the incidence of cervical cancer in the Pacific and how the high mortality rates can be related to the availability of resources and the barriers that exist in current screening programmes. They offer recommendations to local authorities, the Ministry of Health and NGOs to consider for a global elimination strategy, which includes; encouraging education, building regional partnerships to reduce the burden of cervical cancer and improving outcomes for women in the Pacific region.

Water Soluble Vitamins (WSV) play a crucial role in body growth, skin, nerves, red blood cells and heart function. Although deficiency is uncommon, there are no New Zealand specific reference intervals and overseas intervals may not be appropriate. Reza Nemati and colleagues from Canterbury Health Laboratories, University of Otago and Southern Community Laboratories in New Zealand review and summarise analytical and clinical aspects of water-soluble vitamins and advocate for more reliable, accurate and standardised measurements for better diagnosis of these vitamin deficiencies.

D-dimer is a small protein fragment derived from plasmin-mediated degeneration of cross-linked fibrin. The presence of D-dimer is an indication of the activation of intravascular coagulation and subsequent fibrinolysis (enzymatic breakdown of fibrin in blood clots). The D-dimer test is one of the most frequently requested coagulation tests used to exclude venous thromboembolisms, however there are many preanalytical variables that can affect the performance of the assay. Yii Sen Wee from the Haematology Department at Southern Community Laboratories and team conducted a study using INNOVANCE® D-dimer assay to determine if stability time could be extended from 4 to 6 or 8 hours at room temperature to account for late arrivals and added test requests in the clinical laboratories. They concluded that the assay could be reliably tested at 8 hours post-sample collection for both centrifuged and uncentrifuged samples at room temperature.

Holly Perry and colleagues at Auckland University of Technology and University of Otago conducted a study to compare tube and column agglutination technique (CAT) for monitoring quantities of blood group antibody anti-D by titration.

It is important to monitor the quantity of anti-D in mothers throughout an immunized pregnancy. This antibody has the capacity to cause severe clinical Haemolytic disease of the fetus and new-born (HDFN), and higher levels often correlate with greater disease severity. All laboratory methods such as titration, continuous flow analysis and flow cytometry suffer from technical variation leading to a lack of reproducibility within and between laboratories. A trigger titre of 32 is used in tube methods but there is no trigger titre established for column methods. Investigation of sensitivity data between CAT and tube titration of anti-D found that the trigger titre for monitoring fetus risk should be reviewed using the more sensitive and reproducible automated CAT method.

Certain serovars of *Salmonella* show a higher predilection for causing bacteraemia in HIV infected persons and differ with geographic location. Individuals with human immunodeficiency virus (HIV) infection are at greater risk of bacteraemia due to their defective immune status. Dora Udoh and colleagues in Nigeria undertook a study to characterise serovars of *Salmonella* to determine the relationship of the infection with the low CD4⁺ cell counts of patients. The prevalence of *Salmonella* associated bacteraemia was significantly higher in HIV individuals compared to non-HIV subjects, however regardless of HIV/AIDS sero-status, subjects with CD4+ counts below 200 counts/ μ L had the highest rates of *Salmonella* associated bacteraemia.

Dr Idemudia and medical laboratory science colleagues at the University of Benin in Nigeria report on dyslipidaemia in HIV infections with an increased risk of 1.5 - 2 times higher of cardiovascular abnormalities as a result of chronic inflammation in HIV positive people compared to uninfected people. Selected surrogate markers of inflammation and cardiovascular disease were evaluated in participants compared with controls and the team observed that HAART-naive HIV patients had a higher risk of developing cardiovascular disease among the groups in their study, consistent with other studies findings.

Our Emeritus Editor Rob Siebers writes to the Journal comparing article citations of female verses male authors. Under-citation can have serious consequences to promotion for female scholars. The Scopus database was searched and Rob reports a higher mean number of citations to male-authored articles (3.34) compared that of female authored articles (2.23) in the New Zealand Journal of Medical Laboratory Science and is consistent with a similar study published in *Nature Physics*.

[As Editor, I am inspired by this particular issue where four of the six original and review articles have female 1st author or senior corresponding authors.]

We have our regular features, the Science Digest, Pacific Way and two book reviews from Michael Legge, as well as an exciting competition announcement for our new Journal cover for any aspiring New Zealand artists.

Lisa Cambridge, Editor
