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Editorial

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Present Perspective of Different Diagnostic Techniques

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Editorial

The treatment and eradication of infectious diseases can be initially performed by diagnostics. These infectious diseases have more impact on the mortality and morbidity around the world. Initial step need to take for the treatment as well as for the prevention and disease control. Accurate diagnostic techniques are quite important while identification of disease and proper treatment. In order to consider the valuable techniques, the tests could be most appropriate and for the evaluations of these techniques with their factors. For the identification, evaluation and treatment in most of the developing countries, WHO (World Health Organization) with UNICEF (United Nations Children's Fund), world bank and UNDP (Union Nations Development program) have been into a special program that to arrange an expert advisor for planning, designing, commencement and conducting of standard diagnostic evaluations for the tests.

Viral diagnosis has a tremendous move from the margin to the mainstream of clinical strategy. The change has been important for effective antiviral clinical therapies. Diagnostic testing techniques has been undertaken either to document prior infection or to assist the intimacy of the diagnostics. Around 40000 diagnostic products are available globally for a wide range of *In-vitro* testing. Different kinds of diagnostic techniques were using for accuracy to the point in order to minimize the errors in several aspects. Most commercially available diagnostic techniques like rapid diagnostic tests to diagnose malaria. World Health Organization (WHO), Centers for Disease Control and Prevention (CDC) and the Foundation for Innovative New Diagnostics (FIND) in 2015 in the United States of America approximately 250 different types of diagnostic tests for malaria has been reviewed.

The number of *In-vitro* diagnostic tests has been increasing along with the increase in the number of guidelines with sufficient publications on the implementation and their performance of the diagnostic tests. Limited tests and lack of independent data of a tests performance shows impact on the manufacturing process for high quality multiple techniques. The quality and the quantity of the required information available right now makes impact on the policy makers, diagnostic laboratories and other users of selection and use of these tests.

In a diagnostic algorithm the process of selecting one or more than more tests can be unwieldy for laboratories, clinics, countries even nongovernmental organizations clinical support. According to world health organization they have identified six steps that involve when selecting an *In-vitro* diagnostic test. They involve directing in defining the test's purpose, review and check the market product's specification, review the regulatory approval for the tests being performed, data on the diagnostic accuracy under ideal conditions of the tests in laboratory based evaluations, diagnostic accuracy data of the tests in clinical practice and routine outlook of the test's performance.

While in the selection purpose of the subsequent test's the disease to be diagnosed, diagnostic algorithm is required, and the tests can be carried out to provide a quantitative or qualitative results. For optimal clinical utility the site of testing (small health care centre) and the end user (primary health care assistant) should be considered.

From the international organizations such as WHO and manufacturer's products information the market should be efficiently reviewed by the tests available for consulting guidance. The marketed product specifications contain detailed type of sample required, operating conditions of the tests, shelf life and equipments required. Most of the countries now-a-days they don't have regulatory procedures for assessing the safety, effectiveness and quality of *In-vitro* diagnostic tests. For some major conditions the test selection can be assisted for consulting recommendations from international bodies. WHO established a prequalification process to have particular focus to ensure that the tests for HIV, Malaria and Hepatitis B and C infections are affordable. Prequalification has to maintain a review of the product dose and its application, laboratory evaluation of the product and manufacturing site inspection.

Recently more tests has been performed for the deficiency of glucose-6-phosphate dehydrogenase, human papillomavirus has screened and the emergency outbreak of Ebola and Zika diseases have been maintained but not many few other countries.

In phase-II studies it indicates the optimal performance by a test performed under ideal conditions. During the selection process the ease of *In-vitro* diagnostic tests and the actual performance should be considered.

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