

Testing 3 Different Devices on Cervical Samples in India.

Tumour Trace tests different devices in two clinics in India.

Our Indian Studies have been conducted in two locations: Oncquest Laboratories in New Delhi and NM Medical in Mumbai. Tumour Trace established collaborations with Oncquest Laboratories and NM Medical after Tumour Trace participation in UKTI Healthcare Mission in India in February 2015. Main goal was to test three types of device and have face-to face discussion with pathologists for each sample.

1 - Research Study was conducted by:

Oncquest Laboratories Team: Dr. Ravi Gaur, MD, Patology (Medical Director of Study), dr Mrunalini Anand, MD, Phatology, Dr Rajni Parmar, MD, Pathology, Dr Monika Shashank, PhD, Head of Lab Systems and dr. Vinay Bhatia, Molecular Biology.

Tumour Trace Team: Prof. Dr Djuro Koruga, Chief Scientist, Aleksandra Dragicevic, MSc, senior scientist, Ivan Djuricic, MSc, senior scientist and Boris Kosic, MSc, senior scientist.

Period of study

May, 4-7th 2015

Location

Oncquest, New Delhi

With a decade of experience under its belt, Oncquest is known for its excellence in Clinical Diagnostics. From its first avatar as an R&D focused entity, Oncquest has evolved into a reference laboratory in the field of Oncology, and more recently into a multi-platform Pathology Services provider with a core focus in Molecular Pathology and Surgical Pathology Services. Its logistic capabilities and geographical spread makes Oncquest an ideal associate for clinical activities in India. Oncquest's accredited quality systems ensure customer satisfaction through any of its customer-centric service offerings.

Oncquest's recent advances in the areas of Companion Diagnostics and Pharmacogenomics have also allowed for and encouraged greater penetration of Personalized Medicine into the Indian healthcare market, making it the future epicentre of the many technological advancements in healthcare, to come. Its close association with many Hospitals across India stands testament to the faith that Oncquest has instilled in the doctors and patients which avail of its services. Oncquest is fast becoming a cornerstone for a blooming healthcare industry

Existing Methods

Existing diagnostic accuracy of prostate cancer using serum, based on free PSA (Prostate-Specific Antigen, is 63 % [1])

Material

An Experiment was conducted in the Oncquest Laboratory with Tumour Trace devices on **41** samples. There were two sample groups: one set of samples were carried out according to LBC technique (9 samples) and the second set according to standard PAP procedure (32 samples).

Results

Results were obtained from medical doctors using both the standard method and our method; we had a one-to-one evaluation of results with approximately 90% of results overlapping in accuracy.

Comparisons were made on some of the samples: for stained, unstained fixed and unstained unfixed samples with the TT device and it was discovered that best results were from unstained unfixed samples

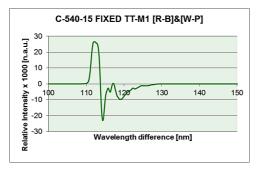




Diagram and image of one sample of unstained fixed healthy sample

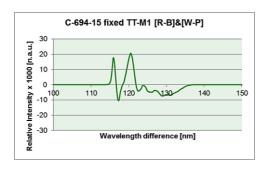




Diagram and image of unstained fixed high-grade squamous intraepithelial lesion sample.

2 - Research Study was conducted by

NM Medical Centre Team: Rahil Shah, Director, Dr. Shipla Morekar, MD, Pathologist and Dolfy Anthappan, Executive Assistant.

Tumour Trace Team: Prof. Dr Djuro Koruga, Chief Scientist, Aleksandra Dragicevic, MSc, Senior Scientist, Ivan Djuricic, MSc, Senior Scientist and Boris Kosic, MSc, Senior Scientist

Period of study

May, 4-7th 2015

Location

NM Medical is the pioneer of radiography, cardiology, pathology and preventative health check-ups in a diagnostic setting in India. In the 1980's. NM Medical was the first to introduce Ultrasound into the private practice domain. In the 1990's, NM Medical introduced preventive cardiology and pathology into the diagnostic centre model as also CT scan and MRI for the first time outside the hospital set up. Since 2010 NM Medical has been accredited by the National Board or Testing and Calibration Laboratories (NABL) as per ISO 15189:2007 standards. Less than 0.2% of medical laboratories in India are accredited by NABL. As per the annual report on hospitals and diagnostic centres nationwide published by Newsweek in 2010, NM Medical is ranked among the top 3 diagnostic facilities in Mumbai. Among these 3 facilities, NM Medical is the only one offering the unique combination of pathology and radiology under one roof and that too in a private centre across multiple locations.

Existing Methods

Existing diagnostic accuracy of prostate cancer using serum, based on free PSA (Prostate-Specific Antigen, is 63 % [1])

Material

Number of **42** samples were prepared according to standard PAP test procedure

Results

Analysis of results was made following a one to one study with NM Hospital medical doctors with more than 90% of results overlapping in accuracy.

Results obtained from this sample size showed a clear separation between healthy and unhealthy cervical samples. As the size sample was small with only two samples with histopathological confirmation of



cervical cancer, we focused on a study that compared the efficacy of fresh, fixed and stained samples.

