

Technology provides more accurate diagnosis for prostate cancer

A new diagnostic tool allows doctors to detect prostate cancer early on and come up the appropriate treatment plan. The [Biojet MRI Fusion](#) is an advanced navigation platform that provides an accurate detection of suspicious lesions by combining MRI and real-time ultrasound.

According to Dr Werner Botha, a urologist at Mediclinic Cape Town, "The MRI prostate results are incorporated into the software programme where the lesions are mapped out. On the day of the biopsy, the MRI mapping is fused with the results from the transrectal ultrasound, providing an accurate target area. It is a safe and a more effective alternative to a standard ultrasound guided prostate biopsy, which can miss significant lesions and consequently lead to an underestimation of the patient's clinical situation."

"Previously we were missing 50-80% of significant cancers and over diagnosing low risk cancers that did not require treatment. We are now identifying 40% more aggressive cancers earlier and detecting less of the insignificant lesions," explains Botha.

Similar systems are available but many are cumbersome and require biopsy via the rectum (with the additional potential for infection). This technology requires only a laptop with the Biojet software and a special electronic stepper that holds the transrectal ultrasound. A grid is placed over the patient's perineal area and coordinates are used to locate the cancer area. Almost like a GPS tracker. As a result, the urologist can perform this procedure on his own and does not require a technician in theatre.

Botha emphasises the benefits of this technology namely the improved diagnostic accuracy and enhanced detection of suspicious lesions. A further advantage is the reproducible nature of the biopsies for active surveillance of tumours or lesions, allowing doctors to monitor and track the progression of the cancer or success of the treatment.