

## COMPARISON OF THE GE VSCAN PORTABLE ULTRASOUND DEVICE WITH A CONVENTIONAL ULTRASOUND DEVICE IN EXAMINATION OF THE GENITO-URINARY TRACT

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**Aim:** The aim of this study was to assess the reliability of a new pocket-sized ultrasound device called the Vscan. The main question was whether this miniature device could be as reliable as conventional ultrasound devices in accurately detecting pathologies and help clinicians take decisive action.

**Material & Methods:** A total of 20 patients were randomly examined by the same clinician using the GE Vscan. These patients were then immediately re-examined by the same clinician using a conventional B&K ultrasound device. The findings from the Vscan miniature ultrasound were then correlated with those detected by the conventional ultrasound device.

**Results:** The accuracy of the Vscan was found to be consistent with the conventional ultrasound when measuring bladder volume, post-void residual urine, kidney size, and size of genital organs. However, measurements of the prostate and uterus were found to be inaccurate when using the Vscan in comparison to conventional ultrasound. The Vscan was also sensitive in detecting hydronephrosis, free abdominal fluid, haematomas, urinomas, abscess formations, and hydroceles. The Doppler mode in the Vscan was also sensitive for detecting torsion testis. The image quality on the portable device was poorer when compared to image quality on the conventional device.

**Conclusion:** The Vscan has the potential to reinvent the clinical examination by being a readily available tool that can aid in quick detection and this would be particularly useful in emergency situations. Experienced ultrasound examiners are necessary to unleash the diagnostic capability of this portable device. However, it does not replace the conventional ultrasound.

