Cardiff spin-out pioneers 'AI' ultrasound scanner

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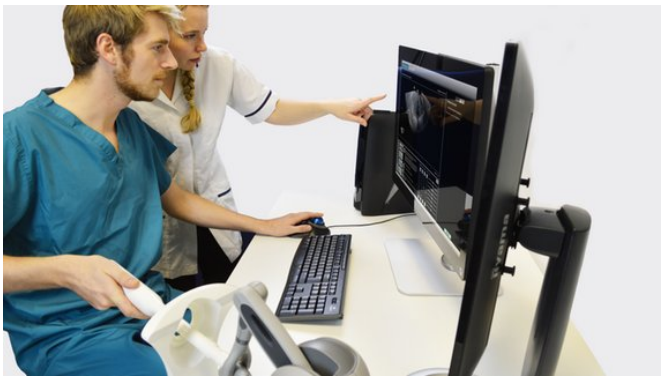

Credit: Cardiff University

A pilot by Cardiff University spin-out MedaPhor could bring future benefits to pregnant women.

St George's Hospital in London is trialling MedaPhor's new ScanNav system, which uses artificial intelligence to perform a 'real-time' review of ultrasound images while the patient is scanned.

The technology could eventually allow pregnant women to have scans at a surgery or health centre with the results interpreted by their GP or a nurse.

ScanNav works by evaluating more than 50 separate criteria to check that the views required by the NHS Fetal Anomaly Screening Programme are complete and fit for purpose.

It does this by drawing on more than 350,000 ultrasound images assessed by a panel of senior sonographers.

Initial studies show that the system, which will be used to train sonographers, is as good as an expert sonographer in providing peer review of images. In future, it could allow medical staff who have not been trained in interpreting ultrasound images to carry out scans.

Katy Cook, Lead Sonographer at St George's Hospital Fetal Medicine Department, said: "Newly qualified sonographers, or those in training, may find this particularly helpful, giving confidence and enhancing skills to attain excellent imaging techniques. This AI software could also potentially automate the required auditing for obstetric scanning and demonstrate quality and competency for every sonographer in a busy clinical setting. This new way of assessing images looks very interesting and could have great potential."

Nick Sleep, chief technology officer of MedaPhor, added: "Understanding how ScanNav is utilised by expert sonographers in a clinical environment is helping us to better determine how our proposed range of ScanNav products will fit into the workflow of a busy fetal medicine department and support sonographers and doctors in ultrasound scanning."

ScanNav is believed to be the first CE marked artificial intelligence (AI) system to carry out an automated, real-time "peer review" of obstetric ultrasound images as the patient is scanned.

Provided by Cardiff University