VIETRAD

TRANSFORMING BREAST CANCER DIAGNOSES ACROSS VIETNAM

Funding granted: AUD 346,140

CONTEXT

Breast cancer is the most common cancer in Vietnamese women with over 10,000 new cases diagnosed annually, with most patients presenting with late stages making the treatment more difficult with low survival. Early cancer detection depends on accurate interpretation of breast images by radiologists and this is essential to improving treatment efficacy and patient prognosis. However, data showed that Vietnamese radiologists displayed low diagnostic efficacy in detecting abnormalities on mammograms with sensitivity values below 50% compared with 85% among Australian radiologists.

SOLUTION

Our novel image approach, Breastscreen REader Assessment STrategy (BREAST), is used by BreastScreen services in Australia and New Zealand as an official training tool to optimise cancer detection. To date we have transformed radiologists' performance in breast cancer detection on mammograms with improvements of over 30% among radiologists. This project will introduce, implement, and validate VIETRAD, a BREAST - type platform tailored for Vietnamese clinicians using high quality Australian and Vietnamese breast images.

For the first time in Vietnam we will have an intelligent system of testing, monitoring and improving radiologic diagnosis of breast cancer. The work will have a major impact on improving early breast cancer detection among Vietnamese women whilst establishing Vietnam as the South East Asian hub of breast cancer imaging research and innovation. In the long-term, VIETRAD platform can be developed for any type of radiologic domain, pathology and oncology.

EXPECTED OUTCOMES

We will introduce and implement VIETRAD into hospitals in Hanoi, Hue-Danang and Ho Chi Minh city.
1. Identify the type of radiologic error occurring in Vietnam;
2. Develop intelligent technology whereby each Vietnamese radiologist interaction with each breast image is recorded and made available to individual radiologists, imaging researchers and regulatory bodies;
3. Embed in Vietnam a novel facility so that imaging research outputs are transformed;
4. Improve breast cancer diagnostic efficacy and patient prognosis leading to higher survival rates for Vietnamese women;
5. Generating evidence for Ministry of Health, providing recommendations and advocating for the development of appropriate clinical guideline and related policies.

This initiative is funded under the competive grant work stream of Aus4Innovation, a flagship four year, AUD 11 million partnership program designed to help strengthen the Vietnamese innovation system and prepare for Vietnam's economic and digital future. The program provides funds to scale already tested activities to address emerging challenges or opportunities in any sector of Vietnam's innovation system.