



Identifying the innovations to help patients

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Health Wales is highlighting the work of Welsh Crucible researchers – the cream of Welsh research talent. Dr Grace Carolan-Rees explains the work of the Cedar centre

I ALWAYS wanted to apply my understanding of physics to real life problems in a way that would benefit people.

Since completing my higher education, I have worked in the NHS as a medical physicist. Medical physicists contribute to many areas of health care, applying and developing sophisticated methods to diagnose and treat conditions, and often undertake research.

A background in medical physics has proved to be valuable experience for my current role as director of Cedar – an evaluation centre for medical technologies and procedures.

Bringing innovative healthcare technologies into regular use has many stages. University researchers typically lead the initial basic research underpinning an invention.

Industry may develop a product and undertake the safety and performance tests for the product to gain a CE mark, which is required before a new medical device or diagnostic test can be placed on the market.

Evaluation is a process to determine whether a new medical technology or procedure is clinically effective and cost effective.

When Cedar is commissioned to carry out an evaluation, this usually begins with a systematic review of the published medical literature to find existing relevant evidence.

The results of this search may be sufficient to answer the question as to whether the technology is better than the usual standard of care.

If there is insufficient existing evidence, then Cedar may be asked to develop new evidence. This could be a formal clinical trial, technical testing, a patient questionnaire or user survey, a cost model, or a database to monitor health outcomes following use of the new technology.

Cedar recently supported Cardiff and Vale University Health Board's gynaecology department in a project funded by the Health Foundation.

The aim was to evaluate a change in location from the operating theatre to the outpatient clinic for women undergoing treatment of uterine fibroids and polyps.

We carried out an independent patient satisfaction survey and comparative economic evaluation. The results showed high procedural success, low complication rates, high patient satisfaction and reduced costs and resource use.

My work is interesting, rewarding and varied. The research aims to identify innovations that are better for patients, less costly for the NHS, and it helps industry to place excellent new products.

For more about Cedar's research see our website www.cedar.wales.nhs.uk

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