

## Shortlist: Innovation in early detection and diagnosis

The earlier the stage at which a cancer is diagnosed, the better outcomes are for the patient, for their loved ones and carers, and for health services and the economy. The winner(s) of this award will demonstrate ambitious and effective innovation in cancer early detection and diagnosis, in Wales.

### 1. The SYMPLIFY study – Swansea Bay UHB, Velindre CC & HCRW

Who	Why
<p><b>Nominees:</b>  Prof Dean Harris – Consultant colorectal surgeon  SBUHB  Sarah Townsend – Head of research and development – Velindre  Christopher Cotterill–Jones – research delivery manager – Velindre  Jayne Goodwin – national head of research delivery – health and care research Wales  Mandy Edwards – cancer research UK senior research nurse for Wales – health and care research Wales  Chris Norman – Research portfolio and directory officer</p> <p><b>Organisation:</b> Swansea Bay UHB, Velindre, Health and care research Wales</p> <p>Nominated by: Prof Tom Crosby, Clinical Director at Velindre Cancer Centre, and Wales Cancer Network’s Medical Director</p>	<p>The SYMPLIFY research study, sponsored by University of Oxford, wanted to check the performance of a multi-cancer early detection (MCED) test in people sent to one of five rapid referral pathways by their GP for symptoms that might be cancer. People taking part had their diagnostic test(s) in the normal way, but also gave a blood sample and permission for their health records to be checked later to see if they had a cancer diagnosis and what appointments and other tests they had. At the end of the study it was hoped that more would be understood about how well the MCED test works in this group of people and to possibly design another study to investigate how to use the test to decide who needs rapid referral to look for possible cancer and what tests to use following a positive MCED result.</p> <p>Velindre University NHS Trust led the coordination of the study. This was the first research study to adopt the Health and Care Research Wales “One Site Wales” approach outside COVID19 vaccines. This approach is part of the One Wales programme, designed to reduce duplication and increase speed of set-up and delivery of research.</p>



With three months' notice, the team successfully recruited the required number of participants to the study, with Wales being the highest recruiting site contributing 1232 recruited participants to the 6241 total participants recruited to the study. Professor Dean Harris, reflected on the achievement:

*"I have not seen before a country-wide set up of a study happen as rapidly as with SYMPLIFY, which pays testament to the commitment and can-do attitude of our delivery teams for which you should all be proud."*



## 2. Rapid chest X-ray pathway for lung cancer – Cwm Taf Morgannwg University Health Board

Who	Why
<p><b>Nominees:</b>  Stuart Baines – Clinical specialist Radiographer  Geraint Reed – Reporting Radiographer  Ruth Albert –Reporting radiographer  Joanne Evans – Reporting Radiographer  Dr Tim Pearce – Consultant radiographer  Dr Grant Griffiths – Consultant radiologist  Victoria Oxley – Senior radiographer  Philip Robins – Senior radiographer  Andrew Thomas – Superintendent radiographer  Marc Phillips – Superintendent radiographer  Philippa Tennant – Superintendent radiographer  Helen Hennon – CT superintendent radiographer  Yana James – CT superintendent radiographer  Lyndon Mayberry – Senior radiographer  Sarah Rees – Superintendent radiographer  Sinan Eccles – Consultant respiratory Medicine</p> <p><b>Nominated by:</b> Stuart Baines, Clinical specialist Radiographer – (self-nomination)</p> <p><b>Organisation:</b> Cwm Taf Morgannwg UHB</p>	<p>A multidisciplinary team in Cwm Taf Morgannwg University Health Board (CTMUHB) has collectively transformed the GP referred chest X-ray pathway for patients with suspected lung cancer. Following the Welsh Governments introduction of the Single Cancer Pathway (SCP, 2019) the Radiology Directorate in CTMUHB was unable to offer scanning and reporting of CT examinations for patients with suspected lung cancer on CXR within the specified timeframe using conventional practice. This prompted a need for innovation.</p> <p>CTMUHB proposed to train Radiographers to interpret CXRs and initiate a same-day CXR 'hot reporting' service with same-day access to CT. The approach included:</p> <ul style="list-style-type: none"> <li>- Welsh Cancer Network funding for four Radiographers to undertake a 1-year MSc in CXR interpretation</li> <li>- Development of patient information and pathways, so GP patients attending for CXRs could have their examination immediately reported and coded remotely, enabling the performing Radiographer to give appropriate feedback to the patient. Where there was a suspicion of cancer or other pathology Radiographers organise a same-day CT scan or follow-up CXR with onward referral to the lung cancer MDT where appropriate.</li> </ul> <p>There are now 10 sessions per week with Radiographers leading CXR reporting, with ongoing Radiologist support. Results – time in days taken for:</p> <ul style="list-style-type: none"> <li>• CXR to be reported: pre-project 2.52, post-project 0.07 (97% reduction).</li> <li>• CXR performed to CT scan performed: pre-project 15.53, post-project 1.61 (90% reduction).</li> <li>• CT scan performed to CT report: pre-project 3.61, post-project 0.92 (75% reduction).</li> <li>• CXR performed to first Chest Physician appointment with diagnostic CT result: pre-project 45.74, post-project 8.72 (81% reduction)</li> </ul>



### 3. Head and neck cancer team – Swansea Bay University Health Board

Who	Why
<p><b>Nominees:</b> Mr Conor Marnane – Consultant Otolaryngologist Mrs Laura Jones – ENT outpatient Nurse manager Mr Spencer Gibbs – ENT outpatient Endoscopy lead nurse Mrs Christine James – ENT secretary/laryngeal biopsy/TNO clinic coordinator</p> <p><b>Nominated by:</b> Mr Laysan Pope – Consultant Otolaryngologist</p> <p><b>Organisation:</b> Swansea Bay UHB</p>	<p>The Covid pandemic had a massive detrimental impact on the availability of operating theatre capacity and clinic slots for pre-operative assessment. This resulted in significant delays in getting ENT patients with suspected cancer onto operating lists for urgent cancer biopsies.</p> <p>To address this, Mr Marnane set up a new clinic, the first of its kind in Wales, to offer biopsies of the throat and larynx under local anaesthetic using special video naso-laryngo-endoscopes with side ports for introducing local anaesthetic (LA) and biopsy forceps to take the biopsy. He began using disposable laryngoscopes but then successfully submitted a bid for charitable endowment funds to purchase a new state-of-the-art re-usable naso-laryngoscope which he and his team are now using.</p> <p>All head and neck/ENT USC patients who potentially need a biopsy are now first sent to this clinic for biopsy, reducing the waits by 3 weeks+. (A few still need to be directed to the main operating list for a biopsy). To date since starting the clinic they have successfully carried out over 100 procedures.</p> <p>The reduction in delays, the freeing up of theatre and pre-assessment capacity, and the reduction in costs, have been significant. PREMS data which show the 10-minute procedure is well tolerated by patients, who favour it to the option of General Anaesthetic (GA) biopsy. It's particularly useful for patients who would otherwise be high risk for a general anaesthetic.</p> <p>Going forward, the hope is to introduce this into the Rapid Diagnostic Clinic Neck Lump Pathway whereby patients seen in this pathway can also have biopsies of any primary site lesions done on the same day that they are assessed.</p> <p>The ENT clinic nursing team has been invaluable in facilitating the clinics particularly with support in terms of set up, assistance with the procedures, and data collection.</p>



#### 4. WICKED/THINK CANCER –North Wales Centre for Primary Care Research

Who	Why
<p><b>Nominees:</b> Prof Claire Wilkinson – Professor of primary care and GP and team</p> <p><b>Nominated by:</b> Lee Campbell, Head of Research, Cancer Research Wales</p> <p><b>Organisation:</b> North Wales Primary Care Research Centre and Bangor University</p>	<p>The International Cancer Benchmarking Programme highlighted that GPs in Wales were less likely to make referrals for suspected cancer than GPs in other countries. Given that anywhere between 60–90% of all cancer patients will first see their GP with cancer symptoms, primary care has a major role to play in early cancer diagnosis.</p> <p>The overall aim of the WICKED (Wales Interventions and Cancer Knowledge for Early Detection) programme was to develop a behaviour change intervention to expedite cancer diagnosis through primary care. Through evidence synthesis, the WICKED/THINK CANCER team revealed prevailing problems in primary care that when addressed could significantly improve cancer diagnosis and reduce the important primary care interval. They also identified:</p> <ul style="list-style-type: none"> <li>(i) A need for continual training and updates on cancer in primary care such as new and hot topics.</li> <li>(ii) That an interventional and educational tool kit should involve all departments in primary care including clinical (GP and nurses) and non-clinical staff (admin and reception) with an open-door policy in operation.</li> </ul> <p>The above evidence contributed to the 2020 Cancer Cross Party Inquiry and was presented at other key forums.</p> <p>Throughout 2020 and 2021 educational workshops were delivered to 30 GP practices across Wales. Despite the challenges of Covid-19, the intervention was successfully delivered with clear high acceptance and adherence by the primary care practices involved. Delivery of training was via virtual learning or physical meetings. It covered NG12 NICE referrals guidelines for suspected cancer, issues of vague cancer symptoms for clinical staff; non-clinical staff were trained to pick-up on potential red-flag cancer symptoms. Safety netting protocols were implemented with a designated safety netting champion identified in each practice.</p> <p>The study has led to the development of a Randomised Phase III primary care clinical trial which is currently under peer review.</p>



## 5. CAN10 radiology pathway – Cardiff and Vale University Health Board

Who	Why
<p><b>Nominee:</b> Dr Rwth Ellis Owen, Cancer Lead Radiologist, Cardiff &amp; Vale UHB</p> <p><b>Nominated by:</b> Dr Rachel Lee – AMD Cancer Services Cardiff and Vale UHB</p> <p><b>Organisation:</b> Cardiff and Vale UHB</p>	<p>Dr Rwth Ellis Owen has been the clinical lead and driving force for the CAN10 radiology pathway in Cardiff and Vale Health Board. This has provided quick and consistent access to diagnostics and has been key in helping to promote earlier detection and diagnosis of cancer. Prior to the CAN10 pathway, there could be significant delays in the turnaround for scans and reports, with a lack of consistency for those referred with suspected cancer, especially from Primary care.</p> <p>This service was started using funding from the Wales Cancer Network and Single Cancer Pathway, which provided more workforce. (This cost has now been absorbed by the Health Board). Building on this, the pathway has also created a more efficient way of working. Radiographers performing outpatient CT scans are encouraged to review the scans prior to the patients leaving; if they see pathology suspicious of a new or recurrent cancer, they are encouraged to discuss with the CAN10 radiologist if any additional imaging is required and they're placed on the CAN10 reporting pool for same day reporting.</p> <p>Patients placed on this pathway are assigned a "CAN10" level of urgency and placed in the CAN10 reporting pool. The aim of CAN10 is that the scan will be performed within 10 days and results reported on the same day. The CAN10 pathway has now expanded to include: vague symptoms, endoscopically detected cancers, haematuria pathway, neck lump pathway, CXR, melanoma Staging CT, ultrasound pathway, lower GI pathway.</p>



## 6. Rapid Diagnosis Centre – Swansea Bay University Health Board

Who	Why
<p><b>Nominees:</b> Dr Heather Wilkes – RDC clinical lead Sarah Dawtry – Assistant divisional manager Catherine Lloyd-Bennett– Macmillan RDC clinical nurse specialist Helen Gray – RDC Coordination manager Julie Williams – RDC HCSW Dr Derrian Markham – Consultant radiologist Dr Martin Bevan – Group medical director/RDC Physician</p> <p><b>Nominated by:</b> Dr Martin Bevan, Group medical director/RDC Physician (self-nomination)</p> <p><b>Organisation:</b> Swansea Bay UHB</p>	<p>The Rapid Diagnosis Centre (RDC) at Neath Port Talbot was one of two pilots set up in Wales in 2017 to see patients with vague symptoms where the GP had a 'gut feeling' that the patient may have a cancer. By October 2018, the service became a recognised permanent pathway within the Health Board.</p> <p>The pathway looks at completing all possible necessary tests at one appointment. For most patients, this provides swift reassurance that nothing was found and for others, it means a swift referral to the site-specific team to manage their diagnosis. Previously, such patients would have bounced around the system.</p> <p>The RDC has a strong ethos of putting patients' needs first by looking at the patient as a whole. Instead of writing to the GP, the team do all necessary requests and referrals, saving delays and taking ownership of the patients. The team is actively trying to find other ways of supporting patients by including prehab with polypharmacy reviews during their time in clinic. The also promotes prudent health care. Further, the patient is supported by a CNS from the initial contact and to the point they are transferred to a site-specific team.</p> <p>Results</p> <ul style="list-style-type: none"><li>- Patient satisfaction has constantly remained high throughout the almost 5 years it has been running. Some examples of patient's comments are below.</li><li>- An independent economic evaluation found that the pathway reduced the average time to a cancer diagnosis for patients with vague symptoms from 84 days to 6 days.</li></ul> <p>The team has now expanded to pilot whether the RDC ethos could be replicated for other areas where cancer diagnoses are being made but the time to diagnosis can be long due to 'not quite fitting the criteria.' The team's enthusiasm is infectious and they are currently supporting the national rollout of RDCs across Wales.</p>

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