**Dedicated Radiology Pathway Navigation: Streamlining the Referral Pathway and Reducing Waits for CT, X-Ray and MRI**

**Cwm Taf Morgannwg University Health Board**

**Value Proposition:**

Cwm Taf Morgannwg University Health Board’s (CTMUHB) Radiology Navigator model tackles diagnostic delays and workforce pressures by embedding advanced practitioner radiographers to streamline cancer imaging.

**Clinical and Operational Impact:**

* Colorectal cancer: 69% receive same-day staging CT; 69% cut in waiting time post-endoscopy.
* Lung cancer: 84% faster CXR reporting; 29% shorter CXR-to-CT interval; 67% faster GP referral to multi-disciplinary teams.

**Efficiency:**

* 273 radiologist hours saved annually.
* 710 additional CTs delivered in 2024.

Aligned with national cancer priorities, the model improves outcomes, reduces inequalities, and relieves system pressure with low investment requirements.

**Why Change is Needed:**

In Wales, lung and colorectal cancers are the leading causes of cancer deaths. Early detection is critical, lung cancer survival drops from 78% at stage 1 to 15% at stage 4 (WCN). Radiology demand is rising 11% annually (RCR, 2023), but staffing isn’t keeping pace. Wales has the UK’s lowest radiologist ratio (6.1 per 100,000), with a 30% shortfall. Reporting delays and bottlenecks are now compromising patient safety. Innovative solutions are urgently needed. CTMUHB’s Radiology Navigator model, upskilling radiographers to support diagnostic pathways, has proven effective in meeting demand and improving outcomes. Similar success has been seen in Milton Keynes and South Tyneside and Sunderland NHS Foundation Trust.

**The Opportunity - Radiology Navigator Model:**

The Radiology Navigator model embeds advanced radiographers in secondary care to streamline cancer imaging pathways.

**Navigators:**

* Enable same-day CT/MRI access for urgent cancer cases.
* Act as a single point of contact for referrals.
* Run additional urgent suspected cancer CT sessions.
* Accelerate staging report turnaround.

In 2024, the Radiology Navigator delivered 710 CTs in additional capacity. Vetting CT referrals under Ionising Radiation (Medical Exposure) Regulations saved 273 hours of radiologist time (£26,070 per annum). Navigators also reduce workload for clinicians and nurses, improving efficiency, timeliness, and patient experience.

**Impact and Outcomes:**

Data comparing pre- (2019–2022) and post-intervention (2022–2024) periods shows significant reductions in lung and colorectal cancer diagnostic waits under the National Optimisation Pathway (NOP).

**Clinical and Operational:**

|  |  |
| --- | --- |
| ***Colorectal Cancer:**** 69% received same-day staging CT (vs 0% in 2022).
* CT within 2.5 days (down from 8; 69% faster).
* CT reports completed in 1.63 days.
 | ***Lung Cancer:**** CXR reports in 0.3 days (84% faster).
* CXR-to-CT interval cut by 29%.
* CT reports in 1.3 days.
* CXR-to-MDT and CT-to-MDT times cut

by 46% and 52%. |

**Workforce and Resource:**

* Radiographer-led CT referral vetting saves 273.3 radiologist hours annually per hospital site, equivalent to £26K in radiologist time or 751 additional CT scans.
* Providing the achieved 710 additional urgent suspected cancer CT scans would otherwise require outsourcing via a mobile CT van at a cost of £68K per site. This highlights the scalable efficiency and cost-effectiveness of this radiographer-led model.

**Breakdown of Costs and Return on Investment:**

Below represents the cost to implement a Radiology Navigator at one hospital site. Cost will vary by health board depending on the number of operational sites.

|  |  |  |  |
| --- | --- | --- | --- |
| **Description of Cost** | **Cost Amount** | **Duration** | **Type** |
| Band 7 Advanced Practitioner Radiographer\* | £53,278 | Recurrent | Revenue |

*\*Costs are based on entry grade band 7.*

The model constitutes an invest to save opportunity. Direct savings can be created through cost avoidance of outsourcing additional diagnostic capacity based on improved service efficiency and resource utilisation.

**Strategic and Policy Alignment:**

The Radiology Navigator model aligns with key Welsh Government priorities (**NHS Wales Technical Planning Guidance 2025 – 2028)** by streamlining diagnostics, supporting early cancer diagnosis, and improving pathway efficiency. It advances outpatient transformation **(Programme for Transforming and Modernising Planned Care, 2022**), drives innovation and workforce support **(Welsh Innovation Strategy, 2023),** enhances individualised care and capacityand enables timely access **(Promote, Prevent and Prepare for Planned Care, 2023).** The model also **supports NOPs targets**.

**Implementation Requirements and Available Support:**

|  |  |  |
| --- | --- | --- |
| **Phase** | **Key Milestones** | **Timeline** |
| **Phase 1:**Engagement & Planning | Engage critical stakeholders (clinical leads, radiology, management), review existing resources and secure additional requirements. Identify pilot-ready sites. Finalise referral pathways and governance documentation. | 1-3 months |
| **Phase 2:**Workforce & Infrastructure | Recruit or identify Advanced Practitioner Radiographers. Provide staff training on Navigator model pathway and processes. | 3-6 months |
| **Phase 3:**Pilot Rollout  | Launch service and monitor patient outcomes and resource impact. | 6-12 months |
| **Phase 4:**Evaluation & Long-Term Sustainability | Conduct comprehensive service evaluation with Value Based Health Care teams. Confirm ROI, patient experience, and system efficiencies. Secure long-term funding and embed Radiology Navigator role into strategic planning. | 12-18 months |

***Supporting resources include:*** Job description, service protocols, service presentation material and Bevan Exemplar evaluation report.

**Call to Action - Adoption of the Radiology Navigator Model:**

With strong alignment to national cancer priorities and demonstrable system-wide impact, the Radiology Navigator model is a proven, cost-effective innovation that delivers faster cancer diagnoses, improves patient outcomes, and significantly reduces pressures on radiology teams. The model has supported the reduction in lung cancer diagnosis times by over 50% and enabled same-day staging CTs for 69% of colorectal patients, transforming outcomes, especially for patients in Wales’ most deprived communities.

**Project Contact:**

**Stuart Baines, Consultant Radiographer, CTMUHB**

Stuart.A.Baines@wales.nhs.uk

[**Visit Webpage**](https://bevancommission.org/radiology-pathway-navigation-a-new-direction-2/)