

BENEFITS REGISTER

KEY: Q Quantifiable – NQ Non Quantifiable – NRCB Non Cash Releasing Benefit

BENEFIT CATEGORY A : HEALTH GAIN								
Benefit No.	Description of Benefit	Benefit Owner	Activities Required (to secure benefit)	Beneficiary	Baseline value (including measurement tool)	Target Improvement & Measurement (expected level of change)	Timing (when will the benefits be achieved)	Lead Responsibility
A1	Improve health gain by providing sufficient CT-Sim capacity and resilience per best practice	Project Board	Deliver a second permanent CT-Sim & AI software	Patients Health Board Regional/Wider Community	Activity p.a. in South and West Wales was 2,278 patients (requiring 2,688 scans) in 2023/24. As at May 2024, the forecast activity for 2024/25 was 2,964 scans.	Increase capacity to support planned activity - 2,900 to 3,500 p.a. QB NCRB	Evidence 12 -18 months post operational	SRO Ceri Gimblett, Interim Group Director, Neath Port Talbot and Singleton Service Group
					As at March 2024, currently only meeting 15% compliance for 80% of 14-day target (i.e. we are 65% below target) <i>Ref. Linac 5 Bunker 6 business case</i>	Service supported to achieve 25-35% compliance for 80% of 14-day target (subject to operational arrangements and whole radiotherapy pathway pressures) QB NCRB		
					Temporary older machine does not support higher quality treatments, for example, we currently cannot support tattoo-less treatments or 4-D scans	Improve the patient experience by providing local access to high quality treatment planning. The increased functionality of the new CT Sim will allow the SWWCC to offer hypofractionated stereotactic radiography to all those that need it, even if the other CT is not in clinical use. NQB NCRB		
					Currently patients within the region travel to the SWWCC for multiple appointments - the baseline average is 11-15 visits over the course of conventional radiotherapy treatment	Reducing the number of visits to av. 5 per patients from 11-15, for some tumor sites will significantly benefit regional patients who travel to see a consultant at the beginning of their treatment, and can in future, have their scan the same day reducing travel, stress and worry. NQB		
A2	Support more Research and Clinical Trial participation	Project Board	Deliver a second permanent CT-Sim & AI software	Patients Health Board Regional/Wider Community	SBUHB's RT Trial data - as at 2024 only 2 trials are open	At least double the number of trials we participate in QB NCRB	Evidence 12 -18 months post operational	SRO Ceri Gimblett, Interim Group Director, Neath Port Talbot and Singleton Service Group
BENEFIT CATEGORY B : AFFORDABILITY								
Benefit No.	Description of Benefit	Benefit Owner	Activities Required (to secure benefit)	Beneficiary	Baseline value (including measurement tool)	Target Improvement (expected level of change)	Timing (when will the benefits be achieved)	Lead Responsibility
There are no specific benefits relating to affordability								
BENEFIT CATEGORY C : CLINICAL AND SKILLS SUSTAINABILITY								
Benefit No.	Description of Benefit	Benefit Owner	Activities Required (to secure benefit)	Beneficiary	Baseline value (including measurement tool)	Target Improvement (expected level of change)	Timing (when will the benefits be achieved)	Lead Responsibility
C1	Improve sustainability and safety of the CT-Sim service	Project Board	Deliver a second permanent CT-Sim & AI software	Patients Health Board Regional/Wider Community	Average 14 patients per month are not meeting the 14-day target in CT-Sim part of the pathway since our older machine was temporarily re-commissioned in January 2024 (this means patients wait longer for their treatment and we cannot optimise health outcomes)	Eliminate breaches that occur inside the CT-Sim part of the pathway. QB NCRB	Evidence 12 -18 months post operational	SRO Ceri Gimblett, Interim Group Director, Neath Port Talbot and Singleton Service Group

					<p>Current Book RT to Data Export step (i.e. the time taken from patient consenting to start RT, to having their CT-Simulation scan completed and the data exported to start the RT Planning process) is approx. 8.0 days (see table below)</p> <table border="1"> <thead> <tr> <th>Running Total</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>Book Trt to Data Export*</td> <td>8.0</td> </tr> <tr> <td>Loading</td> <td></td> </tr> <tr> <td>Image Fusion</td> <td></td> </tr> <tr> <td>OAR</td> <td></td> </tr> <tr> <td>Localisation/Draft Loc</td> <td>3.0</td> </tr> <tr> <td>Peer/Draft Loc Review</td> <td>0.7</td> </tr> <tr> <td>vSIM</td> <td>0.8</td> </tr> <tr> <td>Plan</td> <td>2.9</td> </tr> <tr> <td>TPA</td> <td>0.2</td> </tr> <tr> <td>Approval</td> <td>1.3</td> </tr> <tr> <td>Plan Checking</td> <td>1.8</td> </tr> <tr> <td>Ready for PreTrt to Trt**</td> <td>1.5</td> </tr> <tr> <td>Total days (RT Approval):</td> <td>19.9</td> </tr> </tbody> </table>	Running Total	Average	Book Trt to Data Export*	8.0	Loading		Image Fusion		OAR		Localisation/Draft Loc	3.0	Peer/Draft Loc Review	0.7	vSIM	0.8	Plan	2.9	TPA	0.2	Approval	1.3	Plan Checking	1.8	Ready for PreTrt to Trt**	1.5	Total days (RT Approval):	19.9	<p>Support reduction in Book RT to Data Export step from 9.0 to 4.0 days</p> <p>QB NCRB</p>		
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				<p>Current as at May 2024:</p> <p>(1) Datix ID Health Board risk register no. 89 is rated 15 i.e. medium risk (but will increase 20 i.e. high risk, once the temporary CT-Sim is decommissioned in December 2024) – relates to clinical risk of target breaches in the provision of radical radiotherapy treatment</p> <p>(2) Datix ID Health Board risk register no. 2599 rated 20 i.e. high risk – risk is specific to RT delivery and verification of radiation dose. Risk relates to RT department relying 100% on only one (modern) CT with the technological advances required for complex RT planning.</p>	<p>Mitigate both Health Board Datix risks by eliminating CT Sim pathway's single point of failure & RT radiation clinical risks.</p> <p>QB NCRB</p>																															
				<p>Current performance against IRMIR regulation - local data shows that the newer scanner gives the same or better-quality images with a significantly lower radiation dose. This varies between tumour sites but is between 6% and 50% lower. This means safer patient scans and improved image quality</p>	<p>Reduce radiation exposure to patients per best practice, thereby improving patient safety.</p> <p>NQB NCRB</p>																															

BENEFIT CATEGORY D : EQUITY								
Benefit No.	Description of Benefit	Benefit Owner	Activities Required (to secure benefit)	Beneficiary	Baseline value (including measurement tool)	Target Improvement (expected level of change)	Timing (when will the benefits be achieved)	Lead Responsibility
D1	Improve Equity of Access within the region to high-quality diagnostic and cancer treatment and treatment planning services	Project Board	Deliver a second permanent CT-Sim & AI software	Patients Health Board Regional/Wider Community	Currently SWWCC only has one permanent CT-Sim and has no AI software, e rest practice and Service Specification for External Beam Radiotherapy Services in Wales (executive.nhs.wales/functions/networks-and-planning/cancer/clinical-hub/radiotherapy/radiotherapy-accordion/service-specs/service-specification-of-external-beam-radiotherapy-services-eng/)	Provide second permanent CT-Sim with AI software (supportable on both machines), per best practice and Service Specification for External Beam Radiotherapy Services in Wales	Once fully operational	SRO Ceri Gimblett, Interim Group Director, Neath Port Talbot and Singleton Service Group

BENEFIT CATEGORY E : VALUE FOR MONEY																																				
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E1	Utilise scarce clinical and non-medical staff resources more effectively & Support cost avoidance and promoting time saving opportunities	Project Board	Deliver a second permanent CT-Sim & AI software	Health Board	<p>Current 2023/24 pathway data for Clinical Oncologists' and Radiologists' time spent on Localisation and Draft Localisation is 3 days & 19.9 days in the overall pathway (see table below)</p> <table border="1"> <thead> <tr> <th>Running Total</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>Book Trt to Data Export*</td> <td>8.0</td> </tr> <tr> <td>Loading</td> <td></td> </tr> <tr> <td>Image Fusion</td> <td></td> </tr> <tr> <td>OAR</td> <td></td> </tr> <tr> <td>Localisation/Draft Loc</td> <td>3.0</td> </tr> <tr> <td>Peer/Draft Loc Review</td> <td>0.7</td> </tr> <tr> <td>vSIM</td> <td>0.8</td> </tr> <tr> <td>Plan</td> <td>2.9</td> </tr> <tr> <td>TPA</td> <td>0.2</td> </tr> <tr> <td>Approval</td> <td>1.3</td> </tr> <tr> <td>Plan Checking</td> <td>1.8</td> </tr> <tr> <td>Ready for PreTrt to Trt**</td> <td>1.5</td> </tr> <tr> <td>Total days (RT Approval):</td> <td>19.9</td> </tr> </tbody> </table> <p>Current Linac activity 'lost' due to low CT-Sim capacity was 9% in the last 6 months of 2023.</p>	Running Total	Average	Book Trt to Data Export*	8.0	Loading		Image Fusion		OAR		Localisation/Draft Loc	3.0	Peer/Draft Loc Review	0.7	vSIM	0.8	Plan	2.9	TPA	0.2	Approval	1.3	Plan Checking	1.8	Ready for PreTrt to Trt**	1.5	Total days (RT Approval):	19.9	<p>AI supports reduction in Localisation and Draft Localisation to 1 (CT) day to 2 (Localisation) days, providing approx. 3-day reduction in the whole pathway. QB NCRB</p> <p>Improve VfM of Linear Accelerators by mitigating loss of Linac capacity and optimising utility NQ NCRB</p>	Evidence 12 months post operational	SRO Ceri Gimblett, Interim Group Director, Neath Port Talbot and Singleton Service Group
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E2	Supports Achievement of NHS Net Zero Carbon targets and SBUHB's Decarbonisation Delivery Plan 2022-24 and aligns with the Principles for Building Health Places.	Project Board	Delivery of new permanent radiotherapy equipment and supporting infrastructure, which supports carbon reduction and green travel and energy solutions, and; Sustainable purchase of equipment.	Health Board	N/a – new machine	<p>Standardising the construction approach to minimise construction waste and transportation of construction materials to site, thereby minimising construction-related carbon emissions QB NCRB</p> <p>Incorporating more efficient low carbon energy solutions to support more scans – this facility will provide a fully electric 'green energy' PV engineering solution with no fossil fuel being utilised NQB NCRB</p> <p>Purchasing items of equipment from a framework supplier that supports carbon reduction and sustainability legislation. NQB NCRB</p> <p>Recycling of the decommissioned machine supports circular economy benefits. NCRB</p>	12 -18 months post completion of the scheme	Mark Parsons, Assistant Director of Capital Planning, SBUHB																												

E3			<p>Delivery of modern and more effective hypofractionated and stereotactic radiotherapy treatments, which supports carbon reduction.</p>	<p>Patients/Health Board</p>	<p>We estimate, that approx. 85% of radiotherapy's carbon footprint is made up of patient travel.</p> <p>Currently patients within the region travel to the SWWCC for multiple appointments - the baseline average is 11-15 visits over the course of conventional radiotherapy treatment (ideally, patients would be CT scanned the same day they meet with their clinical oncologist. Due to current CT capacity issues, this is difficult to coordinate, patients therefore must undertake an additional journey to and from the Cancer Centre).</p> <p>The no. of visits during 2023/24 was 2,278 patients x av. 11-15 visits over the course of their treatment = 25,000-34,000 visits</p> <p>If each non-Swansea patient visit (approx. 50% of activity) take an av. of 2-2.5 hrs each way travel every day they have treatment this equates to 50,000-100,000 travel miles during 2023/24 (with visits and travel taking an emotional toll on patients and their carers).</p> <p>Recent work undertaken locally estimates CO2 emissions of 9.1 kg per hospital visit.</p> <p>ref. Access and travel burden associated with breast radiotherapy attendance pre- and post-COVID-19 pandemic Journal of Radiotherapy in Practice Cambridge Core & Towards estimating the carbon footprint of external beam radiotherapy – Science Direct</p>	<p>Additional modern CT scanning capacity will reduce the overall travel burden, making the treatment process less environmentally burdensome.</p> <p>In particular, 'one-stop' planning and treatment with elimination of CT-SIM part of the pathway delays significantly reduces travel time for patients, supporting carbon footprint and environmental benefits.</p> <p>This effectively means 5 visits instead of 11-15 for most breast patients and 5 visits instead of 20 for Prostate patients – a significant reduction in carbon footprint, Co2 emissions and in travel time for patients.</p> <p style="text-align: right;">NQB NCRB</p>	<p>12 -18 months post completion of the scheme</p>	<p>Mark Parsons, Assistant Director of Capital Planning, SBUHB</p>
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				<p>Patients/Health Board</p> <p>SWWCC currently provides a combination of conventional (or normal), and increasingly, stereotactic radiotherapy treatment (which gives radiotherapy in less visits, from many different angles around the body and lowers the risk of side effects).</p> <p>Power requirements for each type of treatment differ significantly per treatment - conventional is 10kWh and stereotactic is 2kWh.</p> <p>The baseline power, based on activity in 2024/25 is estimated as follows.</p> <ul style="list-style-type: none"> - Conventional treatment = 100 patients x 10 kWh per patient per treatment x an av. Of 15 visits during their period of treatment. Totals = 15,000 kWh. - Stereotactic radiotherapy = 50 patients x 2 kWh per patient per treatment x an av. 5 visits during their period of treatment. Totals = 500 kWh. <p>(source: Electra research study data 24/25)</p>	<p>Future treatment provision, utilising stereotactic to a greater extent, is estimated as follows:</p> <ul style="list-style-type: none"> - Conventional treatment = 100 patients x 10 kWh per patient per treatment x an av. Of 15 visits during their period of treatment. Totals = 15,000 kWh. - Stereotactic radiotherapy = 100 patients x 2 kWh per patient per treatment x an av. 5 visits during their period of treatment. Totals = 1,000 kWh. <p>A planned increase in stereotactic radiotherapy treatments from 50 to 100 patients p.a. will increase this treatment's power utilisation above baseline to an estimated 1,000 kWh energy consumption (if we provided this treatment using conventional radiotherapy we would incur an additional 7,500 kWh increase in power usage)</p> <p style="text-align: right;">QB NCRB</p>	<p>12 -18 months post completion of the scheme</p>	<p>Mark Parsons, Assistant Director of Capital Planning, SBUHB</p>
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