



**PWYLLGOR CRONFA ELUSENNOL
CHARITABLE FUNDS COMMITTEE**

DYDDIAD Y CYFARFOD: DATE OF MEETING:	26 September 2023
TEITL YR ADRODDIAD: TITLE OF REPORT:	Funding Application for Cardiac Ultrasound Machine to Improve Access to Echocardiography in Ceredigion.
CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:	Andrew Carruthers, Director of Operations
SWYDDOG ADRODD: REPORTING OFFICER:	Nerys James, Cardiac and Respiratory Healthcare Sciences Manager

Pwrpas yr Adroddiad (dewiswch fel yn addas)

Purpose of the Report (select as appropriate)

Ar Gyfer Penderfyniad/For Decision

ADRODDIAD SCAA

SBAR REPORT

Sefyllfa / Situation

This charitable fund request is being presented to the Charitable Funds Committee to consider and approve an application for £73,500 of charitable funding to support the purchase of a Vivid S70 dimension v 206 cardiac ultrasound machine for Bronglais General Hospital, Aberystwyth.

As this request is being made to replace and ageing and damaged echo machine that is vital to the smooth running of the service and the next meeting of the Charitable Funds Committee is not being held until 26 September 2023, it is requested that this request is considered under Chair's Actions.

Cefndir / Background

Echocardiography is ultrasound imaging of the heart, providing information on cardiac function and heart valvular function. It is an integral part of many treatment and care pathways, notably patients with cardiovascular disease and cardiac valvular disease, providing essential information for disease management and pre rehabilitation.

Inpatient Service

The Getting It Right First Time GRIFT report recognises that echocardiography is essential to hospitals offering acute admissions, enabling swift diagnosis for medically unwell patients, and risk stratification for surgical patients admitted for all types of urgent surgery. For these reasons it is vital that Bronglais Hospital is equipped to deliver urgent, on-site echocardiography. The service delivers an average 35 urgent in-patient echos each month; these are performed within the department or at the bedside, during core working hours, Monday to Friday.

Outpatient Service

Out-patient demand for echocardiography from all specialities is high, and there are increasing numbers of urgent oncology referrals post covid pandemic. The service is delivered in especially designed rooms by specialist trained cardiac physiologists. An average of 144 referrals are received into Bronglais each month and 108 echos are delivered. This mismatch has resulted in 670 patients waiting an average of 32 weeks for their outpatient echo, this

performance is set against a Welsh Government target of 8 weeks. The service has an ambitious training program in place, with 1 part time qualified echocardiographer and 3 trainee echocardiographers. It is vital that high quality equipment is available for each trainee to perform echocardiography under the supervision of the qualified echocardiographer.

Complex Echocardiography

Bronglais Hospital's cardiology department delivers a small but essential complex echo service; Transoesophageal echocardiography is provided for urgent inpatients and scheduled out-patients according to the clinical need. This utilises a specialist probe, 3D and tissue Doppler technology to identify cardiac infections, abscesses and the severity of valve disease in preparation for cardiac surgery. This service is cardiology led, supported by cardiac physiology, nursing staff and occasionally anaesthetic staff.

Service Standards and Specification

The British Society of Echocardiography specify the minimum standard of measurements and images that must be achieved with each echo scan (Ritzmann et al., 2020). This is based on the latest research into disease progression and treatment and considering the latest technologies available. They specify each echo machine should be replaced or undergo major upgrade at least every 5 years, this is a requirement for departmental accreditation.

Health and Safety

Ultrasound imaging is recognised as a high-risk occupation for muscular skeletal disorders and injury (Health and Safety Executive, 2012). Ergonomic equipment and work organisation is fundamental to reducing and managing the risks. Within the Bronglais department a range of ultrasound machines to suit the varied demand is essential. Standard outpatient equipment, semi portable and fully portable options should be available to suit the type of scan needed and adequate number of machines must be available to optimise scheduling and workload.

Asesiad / Assessment

To meet echo demand, utilise limited staff resource and deliver a responsive urgent in-patient service; in-patient echo and transoesophageal echo must be delivered concurrently to scheduled out-patient services. The service cannot be delivered by the laptop style machine as it is designed for very specific point of care use, does not support transoesophageal echo or newer advanced technology. It is also not suitable for prolonged by staff due to the non-ergonomic design.

This request is being made to replace and ageing and damaged echo machine that is vital to the smooth running of the service. The machine identified complements the existing department-based machine and portable laptop machine, delivering the latest technology in a semi-portable, ergonomic platform. It also delivers transoesophageal echo.

Equipment Costs

- Vivid S70 dimension v 206 - £73,500.00 (VAT exempt).

This includes complete purchase of the machine and probes, and 1 year manufacturer warranty.

Workforce and Revenue

The workforce is being trained to deliver the current demand and future development required to deliver echo services in Bronglais. This is supported by workforce modelling; this purchase supports the workforce model and does not incur additional costs.

There is no additional revenue cost associated with this equipment as it is a replacement for the current ageing and damaged model. Maintenance contract is estimated as £7,000 per year, this is within department budgeting and will be transferred from the existing equipment following a 1-year warranty period.

The funding of the annual maintenance contract has been approved by the Service Delivery Manager and Assistant Finance Business Partner and these costs are to be met from the revenue budget.

A Statement of Need (SON) has been completed and approved by Clinical Engineering, reference 2023-130.

The following charitable fund would be used to procure this equipment

- T352 CMW - Cardiac Rehabilitation (balance: £573,176.28)

The funding held within this charitable fund was received from a legacy in aid of cardiology patients at Bronglais General Hospital and this request is in line with the wishes of the estate.

This funding application complies with the Charitable Fund eligibility criteria

- Equipment and consumables: Medical equipment for NHS patient care

This request for charitable funds is being made due to the significant pressures on the HDdUHB 2023/24 capital programme. Although this is replacement equipment, the purchase of this equipment falls within the charity's objects with significant patient benefit outlined within the body of this report.

Benefits

- Maintain echo services at Bronglais Hospital reducing travel to other Health Board sites.
- Support the plans to increase echo capacity at Bronglais Hospital.
- Maintain quality and safety by ensuring equipment is of high diagnostic standard.
- Maintain staff wellbeing by lowering risk of musculoskeletal injury by ensuring equipment used is designed for the purpose.

Support

This request is supported by the Head of Cardiac and Respiratory Healthcare Sciences, Service Delivery Manager for Cardiology, General Manager Bronglais Hospital and all three cardiologists at Bronglais Hospital.

Chair's Actions

As this request is being made to replace and ageing and damaged echo machine that is vital to the smooth running of the service and the next meeting of the Charitable Funds Committee is not being held until 26 September 2023, it is requested that this request is considered under Chair's Actions.

- Charitable Funds Committee Terms of Reference:
(4.23) Items requiring urgent Chair's Action will generally be expenditure on equipment greater than £50,000 value, or anything that falls under the criteria above. All expenditure requests made via Chair's Actions will be considered on a case by case basis, as an exception rather than the rule. The presumption will be that other than equipment (in excess of £50,000) and smaller research projects (up to £25,000), items can be deferred to the next meeting.

The service is currently mitigating the loss of equipment but these actions cannot be supported over a prolonged length of time. We have a multi-pronged approach to increasing activity to meet demand, and reduce waiting lists to the eight week target. This relies upon us having two functioning outpatient echo machines.

Until the new equipment is purchased the service is being affected in the following ways:

1. Reduced outpatient echo activity: the impact has been managed through July and early August with a loss of approximately 5 outpatient echos per week. This is largely due to summer annual leave, an echocardiographer phasing back into work following maternity leave, a new starter due to commence in August. From mid-August these limiting factors begin to resolve so the loss of the machine has a greater impact on our potential to schedule appointments and our plans to increase activity, estimated as approximately 20 echos / week from Mid-August to December. The impact becomes even greater from January onwards. This is set against a monthly demand for 250 echos and a capacity of 130 echos (June 2023 data).
2. Reduced inpatient echo: As above, the impact has been managed and contained to around 3-5 patients / week, these patients are then transferred to an urgent outpatient list.
3. Compromise on quality and diagnostic ability: We are utilising a 'fully portable, point of care' echo machine which does not have the technology to measure some of the parameters that are standard to diagnosing heart disease. This machine is ageing and the image quality is sub-optimal making interpretation challenging. Both of these factors are compromising the echocardiographers confidence in the diagnosis. This also detrimentally affects training of our 3 echo trainees because they are less skilled in acquiring good quality images.
4. The above mentioned 'portable machine' is not ergo dynamic. Prolonged use is affecting the prevalence of shoulder, back and hip pain. This effect is apparent already.
5. In Ceredigion we have 535 patients, waiting an average of 27 weeks for an echo, the Welsh Government target is 8 weeks. The HDdUHB position is 2,484 patients waiting up to 27 weeks (June 2023 figures). The service has insourced capacity to eliminate the backlog but insourcing cannot commence in Bronglais until we have two functioning outpatient machines.

Argymhelliad / Recommendation

The Charitable Funds Committee is asked to **RATIFY** the decision taken under Chair's Action to approve an application for £73,500 of charitable funding from the T352 Ceredigion Cardiac Rehabilitation fund to support the purchase of a cardiac ultrasound machine to maintain and develop echo services at Bronglais Hospital.

Amcanion: (rhaid cwblhau)

Objectives: (must be completed)

Committee ToR Reference:

Cyfeirnod Cylch Gorchwyl y Pwyllgor:

4.20 The following thresholds are approved in the Charitable Funds Procedure:

"Expenditure less than £10,000 shall only need approval by the nominated fund manager. All expenditure in excess of £10,000 and up to £50,000 will require the approval of the Charitable Funds Sub Committee. Expenditure in excess of £50,000 will require the approval of the Charitable Funds

	<p>Committee. Expenditure over £100,000 will require the approval of the Corporate Trustee”.</p> <p>4.23 Items requiring urgent Chair’s Action will generally be expenditure on equipment greater than £50,000 value, or anything that falls under the criteria above. All expenditure requests made via Chair’s Actions will be considered on a case by case basis, as an exception rather than the rule. The presumption will be that other than equipment (in excess of £50,000) and smaller research projects (up to £25,000), items can be deferred to the next meeting.</p>
<p>Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:</p>	<p>119 Waiting Times Cardiac Diagnostics, score 16– the loss of equipment directly affects inpatient flow and outpatient care. This related to risk 119 however it is acknowledged that risk 119 related to staff shortage not equipment so a new risk has been submitted (in progress).</p> <p>Business Continuity Plans enacted; Loss of equipment and impact on service escalated to Senior management and Site management. Actions: Replacement of equipment: Charitable Donation</p>
<p>Safon(au) Gofal ac Iechyd: Health and Care Standard(s):</p>	<p>3.1 Safe and Clinically Effective Care 3.3 Quality Improvement, Research and Innovation 5.1 Timely Access 5. Timely Care</p>
<p>Amcanion Strategol y BIP: UHB Strategic Objectives:</p>	<p>5. Safe sustainable, accessible and kind care Choose an item. Choose an item. Choose an item.</p>
<p>Amcanion Cynllunio Planning Objectives</p>	<p>4S Improvement in Population Health Choose an item. Choose an item. Choose an item.</p>
<p>Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2018-2019</p>	<p>4. Improve Population Health through prevention and early intervention, supporting people to live happy and healthy lives Choose an item. Choose an item. Choose an item.</p>

**Gwybodaeth Ychwanegol:
Further Information:**

Ar sail tystiolaeth:
Evidence Base:

References

Ritzmann et al., (2020). British Society of Echocardiography Accreditation Standards 2019 with input from the intensive care society. Available at: <https://doi.org/10.1530/ERP-19-0045>

	<p>Health and Safety Executive (2012). Risk management of musculoskeletal disorders in sonography work. Available at: https://www.hse.gov.uk/healthservices/management-of-musculoskeletal-disorders-in-sonography-work.pdf</p> <p>NHS England (2021). Cardiology GIRFT Report. Available at: https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2021/09/Cardiology-Jul21k-NEW.pdf</p> <p>NICE Guidance British Society of Echocardiography</p>
Rhestr Termau: Glossary of Terms:	Within the report
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Pwyllgor Cronfa Elusennol: Parties / Committees consulted prior to Charitable Funds Committee:	Hywel Dda Cardiology Clinical Lead and Cardiologists; Cardiology Management Team. Bronglais Hospital Site Managers

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	This request is for Charitable Funds to support a fixed cost/one-time investment in equipment. No recurring or revenue cost.
Ansawdd / Gofal Claf: Quality / Patient Care:	Improved patient outcomes and experience on account of maintaining access to cardiac diagnostic imaging.
Gweithlu: Workforce:	Not applicable
Risg: Risk:	<p>Failure to provide timely echocardiography with impacts on:</p> <ul style="list-style-type: none"> Timely cardiac care Timely non-cardiac surgery Timely access to cancer treatment <p>Failure to diagnose and treat:</p> <ul style="list-style-type: none"> Stroke care Cardiac care
Cyfreithiol: Legal:	Not applicable
Enw Da: Reputational:	Reputational damage caused by inequitable access to core services
Gyfrinachedd: Privacy:	Not applicable

**Cydraddoldeb:
Equality:**

Yes and approved, they confirm a full assessment is not necessary