GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

PWYLLGOR CYLLID
FINANCE COMMITTEE

DYDDIAD Y CYFARFOD: DATE OF MEETING:	29th April 2021
TEITL YR ADRODDIAD: TITLE OF REPORT:	Connected SMART Medical Devices within Hywel Dda to Support our Patients.
CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:	Huw Thomas, Director of Finance
SWYDDOG ADRODD: REPORTING OFFICER:	Prof. Chris Hopkins, Head of Clinical Engineering.

Pwrpas yr Adroddiad (dewiswch fel yn addas)
Purpose of the Report (select as appropriate)

Er Gwybodaeth / For Discussion

ADRODDIAD SCAA
SBAR REPORT

Sefyllfa / Situation

Medical devices are usually designed for a specific application. Adding connectivity to a device allows data to be generated related to a patient's wellbeing and a device's operations, which can then be used to improve patient outcomes. A number of medical device companies are implementing solutions that wrap their connected device offerings around patient monitoring and services that allow Health Boards to understand key health metrics of their patient population. Some of these connected solutions are linked to the therapies developed by the company, such as smart infusion devices.

Cefndir / Background

Connected solutions are delivering better patient outcomes and aiding Health Boards and NHS Trusts to improve operational and financial performance. These connected medical devices are proving increasingly crucial to the Health Boards that have adopted them. Linking connected medical devices and IT systems will enable the transformation of health care provision. Achieving connectivity at scale requires interoperability – devices, systems and organisations communicating through a common language, with the ability to link individual sets of data that sit within health care organisations. However, there is no consensus on the best method to achieve large-scale interoperability, with a range of solutions emerging. Connected systems are often designed to support the companies' own devices, or they do not integrate well into existing systems used by Health Boards, leading to pockets of interoperability within a hospital that is unable to share information with other medical specialties within the same organisation.

A number of large medical device companies, however, have developed connected ecosystems that act as a common platform to share and view data. Medical device companies are increasingly turning to collaboration to achieve interoperability that can work across an organisation and incorporate devices made by third parties. Some collaborations look to incorporate third party devices into their own digital ecosystem, integrating data from across a wide range of devices into their own solution, or they look to harmonise systems and data sharing among an organisation's own systems.

Applying analysis to the data generated from connected medical devices will provide critical insights and empower better decision-making. Patient data provides insights into a health condition and the success of treatment, as well as insights on the efficiency of services delivered by Health Boards. Analysing a vast array of data from medical grade wearables, imaging and monitoring devices plays a key part in realising the value of an interconnected system. The increasing connectivity between devices and data has led medical device companies to develop advanced analytical capabilities that are able to uncover hidden patterns and trends in information. This in turn is generating insights and enabling self-learning systems to predict and conceive alternatives that may not otherwise be obvious. Analysis of these large data sets can also aid in improving the productivity of Research and Development functions. The insights derived from linking connected medical devices and health data sets have a key role in aiding health systems to reduce costs, improve quality, identify populations at risk, connect with patients and better understand performance. These capabilities are essential components for the successful implementation of Value Based Health Care (VBHC).

Assessiad /Assessment

Cost-effective and purposefully designed, technology-enabled health care solutions can improve the well-being of millions of people and radically change the way services are delivered to patients. Digitisation is helping to improve the continuity of care, promote improved health and prevent disease. It is driving the reform of health systems and their transition to new models of patient-centred care, enabling the shift from hospital-centred systems to more community-based and integrated care organisations, which supports the Health Board's Transforming Clinical Services Strategy. Digital tools have the potential to enable better use of health data in research and innovation to support personalised health care, better health interventions and health and wellness services.

The health care and life sciences industries are moving away from traditional reactive and largely episodic models of care that are proving increasingly costly and inefficient to operate, to care models that are proactive, digitally enabled and deliver better care and value for patients. Health Boards can capitalise on the possibilities presented by these changes to help to connect patients and providers to enable them to become more patient-centric, productive and cost-effective.

Argymhelliad / Recommendation

Finance Committee is asked to support the following recommended actions:

1. To assess the relevance of VBHC models and determine which would best meet our circumstances and what technology would generate the outcomes data required to meet the expectations of patient-driven health care.

2. To implement a local technology 'hack', with support from the Bevan Commission and Life Science Hub, to collaborate and network in order to develop early-stage medical device connectivity (SMART) ideas that might solve operational health challenges within Hywel Dda University Health Board.

3. To recruit the right skills to analyse data, support networked medical devices and build actionable reports; a mixed team of Clinical Engineers/ Scientists and IT working together.

Amcanion: (rhaid cwblhau) Objectives: (must be completed)	
Committee ToR Reference: Cyfeirnod Cylch Gorchwyl y Pwyllgor:	3.5.12 Receive reports relating to the Health Board's Digital Programme to ensure benefits realisation from the investment made.
Cyfeirnod Cofrestr Risg Risk Register Reference:	Not Applicable
Safon(au) Gofal ac Iechyd: Health and Care Standard(s):	Safe Care: Standards 2.1 Managing Risk and Promoting Health and Safety Standard 2.9 Medical Devices, Equipment and Diagnostic Systems Effective Care: Standards 3.1 Safe and Clinically Effective Care
Amcanion Strategol y BIP: UHB Strategic Objectives:	9. To improve the productivity and quality of our services using the principles of prudent health care and the opportunities to innovate and work with partners. 10. To deliver, as a minimum requirement, outcome and delivery framework work targets and specifically eliminate the need for unnecessary travel & waiting times, as well as return the organisation to a sound financial footing over the lifetime of this plan
Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Statement	Support people to live active, happy and healthy lives

Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	Evidence is included within the report.
Rhestr Termau: Glossary of Terms:	Explanation of terms included is within the report.
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y pwyllgor cyllid: Parties / Committees consulted prior to Finance Committee:	Details included within the report

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	Significant opportunity exists in relation to a standardised approach to equipment replacement.
Ansawdd / Gofal Claf: Quality / Patient Care:	Proactive and digitally enabled equipment can deliver better care and value for patients.
Gweithlu: Workforce:	Safeguard our workforce by providing the required equipment to support Health and Safety at Work

Risg: **Risk:**	Traditional reactive and largely episodic models of care are proving increasingly costly and inefficient to operate. If systems are not robust there is a potential that patients will be harmed through the use of ageing equipment.
Cyfreithiol: **Legal:**	Potential litigation from sustained harm to patients and staff caused by use of ageing equipment.
Enw Da: **Reputational:**	Potential risk of reputational damage to the HDUHB through legal challenges from utilisation of ageing equipment.
Gyfrinachedd: **Privacy:**	Not Applicable
Cydraddoldeb: **Equality:**	Not Applicable