Cardiff and Vale University Health Board Business Case

For revenue investment proposals greater than £75,000

All business cases must be submitted in line with the timescales outlined in Annex d

Title	End of Life & Supportive Care Strategy & Delivery Plan
Clinical /Service Board or Department	Cross-Clinical Board, brought by PCIC SMT
Expected funding source (highlight/delete as appropriate)	UHB Core Funding + Macmillan (partial funding through Macmillan/Social Finance to de-risk the 3-year return on investment plan)

Approval and scrutiny route	
Has this case been signed off by the Clinical Board / Corporate Departments senior team?	PCIC Senior Management Team
Has this case been signed off by the Clinical Board / Corporate Departments finance and workforce business partners?	Assistant Director of Finance – Chris Markall Senior Finance Business Partner for Value – Julia Cottam
Clinical Boards: Has the COOs office signed off this document? **Corporate Departments:** Has the relevant Executive sponsor signed off this document?	Yes. Executive sponsor - Paul Bostock

Contents

1. Executive Summary

This End of Life and Supportive Care Strategy seeks to deliver integrated End of Life (EOL) care for the population of Cardiff and Vale alongside partner organisations, with a value-based focus on patient experience and outcomes.

Currently around 3,900 people die in Cardiff and Vale each year, and this is predicted to increase by 27% reaching 5,000 by 2040. Patients with life-limiting conditions of whatever cause, once they fully understand their situation, frequently choose to reprioritise quality of life over prolongation of life. Yet our increasingly overburdened healthcare system ends up admitting dying patients for more than 4 weeks out of the last year of their life.

At any point in a patient's disease trajectory, a palliative approach can improve parameters of good end-of-life care including reducing hospital admissions. There is an increasing evidence base to support a number of different approaches in palliative care provision which can have a significant value-based impact and reduce the number of patients experiencing the kind of unwanted reactive healthcare delivery which is more likely to result in a poor end-of-life experience.

This strategy aims to support patients who are in the last 1-2 years of life to have more personalised and tailored care which frequently will need to be organised around facilitating care at home and avoiding hospital to achieve patient preference.

The strategy will be delivered in two phases;

- Phase 1 May 2025: Expansion of Supportive Care & Tidal Zone 1 (Front Door)
- Phase 2 October 2025: ALISE (Expert Areas) & Tidal Zone 2 (Community Outreach)

The implementation of a comprehensive and innovative strategy for palliative and end-of-life care is imperative but also makes huge logical sense if we wish to relieve some of the currently unnecessary burden on our healthcare services. This strategy offers a cultural change in end-of-life care stewardship which could potentially ease pressure on the whole system through rationalising rather than rationing care delivery within a context of improved personalised value for the individual.

This strategy will contribute significantly to the whole system's financial and operational sustainability.

Revenue Requirement	**2025/26 (£m)**	**2026/27 (£m)**	**Recurrent (£m)**
	1.230	2.437	2.558
Capital Requirement (£m)		N/A	

The UHB has been working with Social Finance to finalise approval of a bid against their Macmillan fund to support the financial model of this strategy. Social Finance would provide a 'social bond' allocation to fund the investment up front, which would then be repayable subject to delivery against the agreed set of KPIs and savings, demonstrating the value-added. This supports the initial cashflows but also significantly de-risks the overall investment / return on investment plan. **It is currently anticipated that a £4m Macmillan investment over three years will be signed off in February 2025. The contract is now being drawn up.**

The realisation of benefits includes length of stay (LOS) savings based on admission avoidance and reduced AvLOS for the cohort. The primary KPI for the social bond repayment model will be LOS reduction modelled on £450 per day. The projection is an equivalent 30 beds based on prudent assumptions, and a commitment to reduce the UHB bed base would support delivery

of this on a cash releasing as well as efficiency / cost avoidance basis. The business case provides a recurrent benefit impact of (£4.9m) for the UHB.

The indicative financial model is set out in the case and summarised below:

Indicative Social Bond / Benefits Realisation Model		25/26 £m	26/27 £m	27/28 £m	28/29 £m
Social Finance: Macmillan	Social Bond Income	(1.199)	(2.468)	(0.333)	0.000
	Social Bond Repayment (indic')	0.000	1.500	2.250	0.000
Business Case	Resource input costs	1.199	2.468	2.558	2.558
	Benefits realisation Wards incl. AHP	0.000	(1.506)	(2.957)	(2.957)
	Benefits realisation Medical & Other			(1.971)	(1.971)
		0.000	**(0.006)**	**(0.453)**	**(2.370)**

It should be noted that the above is still subject to the final contract agreement with Social Finance/Macmillan and assumes 30 beds are closed mid 26/27, with direct and indirect cost savings (e.g. ward non-pay, nursing, AHP, medical) being realised recurrently.

The Medicine Bed Plan considers the forward bed requirement based on demand trajectories, seasonality, CHKS peer LOS ambitions and occupancy assumptions. Actions to mitigate demand (and consequently shift the trajectory) are key for sustainability. It is important to note that a commitment to close 30 beds in support of the EOL model and equivalent savings is no worse than the 'do nothing' trajectory on both. However, it also potentially releases capacity to support wider redesign and changes in care models.

2. Introduction and Background

Our vision is to facilitate equitable provision of palliative and end-of-life care to all, ensuring that services can support care provision in the community whenever possible. Palliative and End of Life Care includes, 'the care and support of people and their families with progressive life shortening conditions, particularly those who may be in the last year of life, and including the various elements often described as palliative care, end of life care or the last days of life.' (Welsh Government Palliative and End-of-Life Quality Statement).

There are approximately 33 000 deaths in Wales per year which is predicted to increase to 42 000 by 2040. 81% of these deaths have been identified as being in relation to a palliative condition. For Cardiff & Vale, this equates to approximately 3900 palliative deaths per year and this figure is predicted to increase to 5000 by 2040.

Despite 81% of people saying they would wish to die at home when the time comes[1], 43.4% of deaths occur in hospital. Last year of life call outs make up 13% of all WAST calls with 2/3 occurring out of hours with evidence to suggest that as many as 20 – 40% of these admissions could be avoided[3]. which is also adding an avoidable burden to our emergency services.

Last year of life data in Wales has shown that;

- Approximately 89% of patients with a palliative condition access unscheduled care via the Welsh Ambulance Service (WAST).
- 38% go on to be admitted to hospital[2].
- Only around 22% of these patients have a recorded palliative event prior to death and having been identified as palliative by a GP and placed on the Palliative Care register.

- Marie Curie data in 2016 showed Wales had more emergency admission bed days than England (3:2) in the last year of life[3].
- Average admissions across Wales in 2023 show a mean of 3.51 admissions with mean bed days 34.6.

Evidence suggests that palliative input to patients with many life-limiting non-cancer conditions can improve quality of life and reduce readmission rates, yet referral rates remain very low with end-stage organ failure referrals at around 6%[4]. These conditions often have unpredictable disease trajectories resulting in frequent revolving door admissions. It is approximated that 88% of those dying in Wales would benefit from palliative input[5] but there remain large inequities in access and provision especially based on diagnosis. The Welsh Government End-of-Life dashboard data shows that overall, only 40% in last year of life receive SPC input but when dividing by diagnosis only 20-30% of patients with non-cancer compared with around 85% of patients with cancer diagnoses ever receive SPC.

There is evidence to show that once patients with life-limiting conditions understand their clinical situation, what they most want from healthcare refocuses towards quality of life and includes: adequate pain and symptom control; regaining a sense of control; not to be a burden on others; strengthening of relationships with loved ones instead; avoiding inappropriate prolongation of dying.[6] By recognizing the influence of many of the factors listed above there is a basis for establishing a much more effective end-of-life strategy with realistic value-based measurement as a means to ensure successful implementation and impact.[7]

In recent years there has been an increasing body of evidence for potential value-based benefits through Palliative Care initiatives which can support patients to avoid admission or reduce time in hospital. Many of these approaches will help to avoid and address the factors which can lead to a poor end-of-life experience. These specific initiatives are listed below:[3]

- **Early hospital discharge support**: Front-door hospital based, early inpatient Palliative Care consultation (*shorter hospital stays and cost-savings),* QoL focused assessments (*reduces readmissions*), Hospital Palliative Care team (HPCT) (*increases discharges to Hospice*).
- **Integrated Palliative Care models:** integrated services & integrated settings giving proactive support, symptom control, ACP, education, advocacy, navigation, (*can reduce hospitalisations and bed days.)*
- **Palliative Care support in the community**: hands on care, multidisciplinary input, emergency interventions (*can reduce ED attendance by 1/3, reduces hospitalisation by 1/3 and reduces hospital death by ½*).
- **Nurse-led inpatient initiatives:** nurse-led beds for less complex end-of-life (EoL) patients (*can reduce bed days and in hospital deaths*).
- **Single point of access:** single helpline phone number for palliative patients to help coordinate urgent versus nonurgent care (*possible 30% less admissions and 30% shorter stay).*
- **Out of hours telephone line**: access to 24-hour advice (*possible 34% reduction in hospital admissions*).
- **Care home innovations**: increased CH staff training in recognising dying, communication, future care planning (FCP), documentation of changes in condition/preferences/telemedicine consultations. (*may reduce admissions (55%) and/or LOS (67%)).*
- **Ambulance and paramedic education:** paramedic training to recognise dying and administer EoL medication with adequate resources following ambulance team review.

- **Telemedicine/consultation**: not beneficial unless as part of a whole programme of care delivery.

Utilising many elements of this evidence has formed the basis of our innovative strategy for redesign and development of a future service model, which we believe will be better for dying patients both now and into the future. It also encompasses outcomes from C&VUHB stakeholder end-of-life workshop groups held in 2018 which included patients, carers, palliative care services, primary and secondary care providers (including non-cancer specialists) and voluntary sector representatives, which concluded that patients wanted proactive patient-centred support and better communication.

3. Strategic Context – Alignment to UHB strategic direction

Objectives	How does this proposal support any of these objectives
Putting People First	The strategy is centred around the needs of patients in the last years of their life. It aims to deliver improvements to the recognised areas of importance to patients as they start to refocus towards quality of life including; • regaining a sense of control • remaining out of hospital whenever possible • Improved stewardship in the last 1-2 years of patients' lives • Equity of access to palliative input for non-cancer patients
Providing Outstanding Quality	The strategy aims to redress the inequities of palliative access for non-cancer patients, whilst simultaneously maintaining and continuing to improve the standard of palliative care delivery to cancer patients. Project design consistently focuses on optimising resource efficiency as well as personalised value for patients, recognising the incredible importance of supporting informal carers and including them wherever possible in our patients' holistic delivery of care. The strategy aims to ensure the benefit of palliative input can be provided as early as possible to prevent unwanted admissions through good symptom control and holistic personalised care.
Delivering in the Right Places	This strategy will support flow through the Hospice beds, reducing the amount of inappropriate end-of life patients being admitted through the acute hospital front door as well as supporting transfer of patients off highly expert ward areas such as ITU, CCU and other high care areas. The development of a digital solution, to connect the GP systems, accessible to WAST and secondary care, with ownership and input from individuals themselves, to hold information of key elements of tailored management, Future Care Plans (FCP) and other useful information to support recording and communication of end-of-life decision-making and action plans which can thereby support patients to remain at home when this is their wish.
Acting for the Future	Aligned to the 4 principles of sustainable healthcare, the strategy addresses: • Prevention - reducing unnecessary admissions, length of admissions and optimising health, symptom management and wellbeing. • Patient empowerment - integral to the strategy. • Lean pathways - proactive in community, WAST and in the hospital. Reduction in unnecessary patient travel, reduction in family/friend travel. • Low carbon alternatives- reduce unnecessary medications, reduce unneeded investigations, reduce single use items and plastics, all whilst adding social value at every opportunity. *Reduced bed days and intensity of bed days:*

	• Bed days avoided quoted at 18,700 (lower end). • Inpatient, low intensity bed-days 37.9kgC02e/bed/day. • 18,700 x 37.9 = 708 730kg C02e avoided **(708T).** *Reduction of high intensity wards beds (ICU/CCU):* • *Avoids further* emissions from this cohort of patients as a high intensity bed space is over twice as 'carbon intensive' as a low-intensity ward bed at 89.5kg/C02e/bed/day • Addition of 'green space' community projects for wellbeing and improved mental health and biodiversity projects eg plant a tree for everyone who dies, stump up for trees/Roots of Hope project.

4. Summary current service provision and case for change

The core service model for Specialist Palliative Care Services includes:

- Community Based Palliative Care
- Specialist Palliative Care Inpatient Unit
- Hospital Based Palliative Care
- Supportive Care Service

Specialist Palliative Care (SPC) is a relatively new specialty (1990) which arose to meet the unmet needs of those dying with cancer. Services have evolved over the last 3 decades with support from our voluntary sector partners to deliver excellent care to those who are referred. Around 80% of cancer patients receive specialist palliative care (SPC) input whilst those with non-cancer life-limiting conditions are far less likely to be referred or are referred very late so that only around 20-30% of these patients receive palliative input. Many non-cancer patients have an unpredictable disease trajectory and together with the availability of ever-increasing treatment options in many of these conditions means that prognostication is very difficult. This often results in frequent repeated hospital admissions and high percentages of in-hospital deaths because when an admission to assess and explore treatment options leads to an ongoing deterioration this frequently ends with an in-hospital death.

Specialist Palliative Care

When looking at the available data, workforce activity estimates that Specialist Palliative Care referrals to community or hospital Palliative Care services per year equals 3844 per year. However, there is significant overlap in all currently available data:

- Community Palliative Care report a total of 1167 deaths per year.
- Hospital Palliative Care team report 555 deaths.
- Supportive Care reports 138 deaths per year.
- District Nursing teams would usually be involved in most end-of-life patients in the community (unless in nursing homes) and they report approximately 80 deaths in the community per month equating to around 960 patients per year; these patients will almost always also be known to CPCT.

The data suggests an estimate of the number of deaths per year, who have had SPC input, as a maximum of 1900.

The Hospital Palliative Care team also report a proportional 63% cancer vs 34% non-cancer of their referrals which is much higher than community teams. Hospice @ Home report 70.1% of patients at end-of-life supported by their service in the community as cancer vs 29.9% non-cancer. Supportive Care are a developing service but currently have 138 non-cancer patient

deaths per year. The WG end-of-life dashboard (which captures approx. 80% of end-of-life patient activity in C&VUHB) indicates approximately 2500 deaths per year are known to SPC (paediatric and mental health excluded). This data shows inequity in cancer (85%) compared to non-cancer (30%) patients receiving SPC input each year.

The end-of-life dashboard details the bed-days for patients in C&VUHB in the last year of life as follows:-

	Total Bed-days
2018	120,314
2019	110,834
2020	113,805
2021	101,376
2022	119,277
2023	110,093

Note: Cohort excludes accidents and injury

Based on 95% occupancy levels, this analysis maintains that end-of-life patients in 2023 occupied 317 of C&VUHB's hospital beds.

The UHB has undertaken detailed analysis of the last year of life of all end-of-life patients for the 2-year period April 2022 to March 2024. The cohort excluded patients who have died unexpectedly, it also excluded patients whose death was uncoded. The table below details the activity data for non-elective admissions.

	April 2022-March 2024	Average Annual
Number of EoL Deaths	9,340	4,670
No of Patients with at least 1 admission in LYL	5,031	2,516
Number of Admissions	10,307	5,154
Number of Bed days LYL	198,798	99,399
Length of Stay per admission	19.29	19.29
Average number of Admissions per Patient	2.05	2.05
Total Average Bed days LYL	39.51	39.51
Number of Patients who Died in Hospital	2,706	
% Total Cohort Died in Hospital	**29%**	
% Died in Hospital with an admission in LYL	**54%**	

The total cost of the emergency acute stream has been calculated by matching admissions to the Patient Level Cost (PLIiCs) data. This analysis identified: -

- The full cost of non-elective admissions was £122.5m over 2 years.
- These costs are equivalent to £616 per bed-day including overheads, £467 excluding overheads.
- This cohort also had 10,777 EU attendances at a cost of £4.2m over the 2 years.
- The total emergency acute cost for this cohort being £126.7m or an average of £67.1m per year.

The cohort also had elective stays costing £7.5m in their last year of life (cohort spans 2 years). The above provides the context of the scale of resources currently supporting this cohort.

Current workforce model:

The following workforce is currently budgeted for as part of the core service model:

	Clinical staffing grade	C&VUHB Hospital Pall Care Team	Marie Curie Inpatient Unit	Marie Curie Community Service	Marie Curie Hospice @ Home Service	City Hospice Community Palliative Care Team	Supportive Care Service
Medical Staff	Consultant	2.5	1.9 (0.8 vacant)	0.3		2.2	1.0
	Junior Medical	(1.0 ST vacant)	5.5	0.8 (SAS) (0.5 ST vacant)			
Nursing Staff	Band 8	1.0	1.0	1	Band 8 covers community & H@H	1.0	1.0
	Band 7	5.0	1.0	3.4	1	11	1.0
	Band 6	1.0	3.0	2.8	1.4		
	Band 5		23.91				
	Band 4						
	Band 3						
	Band 2		15.73		16.31		
Allied Health Professionals	Band 8		1.0 Pharmacy				0.5 Dietitian 0.6 Psychology
	Band 7	1.1 OT	1.0			2.0 OT 0.6 Social Worker	1.0 OT 0.6 Physio
	Band 6		0.8 Physio 0.8 OT 1.3 Social Worker 0.6 Spiritual Coordinator	0.8 Physio 0.8 OT 2.0 Bereavement Coordinator/ Counsellor			
	Other					Welfare rights officer Counsellor	
Secretarial	Band 5				1.0		0.8
	Band 4	1.3					
	Other		3.0 Admin 1.0 Reception				
Ward Clerk	Other		2.0				

5. Case of change - *The evidence*

Currently Specialist Palliative Care services are seeing approx. 2000-2500 end-of-life patients per year (per dashboard/service feedback) of an expected 3900. However, referrals are often in the final weeks of life where impact on stewardship may be too late, and the current service model has also been largely designed as cancer-centric.

Factors to be addressed to ensure that a poor death is avoided:

- Uncontrolled symptoms: pain, agitation, breathlessness etc.
- Basic human needs not supported e.g. eating, drinking, toileting, cleanliness, dignity etc.
- Inequity based on diagnosis, age, ethnicity, sexuality etc.
- Patient being alone and/or frightened.
- Lack of honest compassionate communication to explain the situation.
- Poorly explained and supported decision-making re interventions/place of care.
- Over-medicalised/over-active approach.
- Reversible clinical elements not considered/addressed.
- Carers isolated/overwhelmed.
- Lack of compassionate care.
- Environment not comfortable, peaceful, safe e.g. in hospital when admission was not wanted, alone at home, A&E on a trolley, busy ward areas, unsafe home situation etc.
- Loved ones restricted in access e.g. shared ward areas in hospital, ITU.
- Care poorly responsive to changing needs.
- Necessary informal carer information/skills not explained/taught.
- Lack of resources e.g. necessary medication unavailable, district nurse/ward nurses unable to be sufficiently present, lack of equipment, inadequate access to expertise.
- Inadequate planning/plans not put into action.

Elements of healthcare delivery contributing to poor end-of-life care and compromising optimal value-based outcomes are likely to include one or more of the following:

In hospital	**In the community**
• Unnecessary/unwanted hospital admissions/bed days in last year of life (when not patient preference). • Too many patients dying in hospital (when not their preferred place of death (PPD)). • Too many patients dying on busy highly expert wards eg CCU, respiratory high-care, ITU. • Difficulties in prognostication leading to over-active management as a default.	• Limited resources for hands on nursing care in community for end-of-life. • Informal carers often inadequately prepared/supported eg unprepared at time of discharge for end-of-life care, no carer respite. • Highly specialised Hospice in-patient beds often not ringfenced adequately to maximise use of expertise eg long waiting list affecting prioritisation, patient flow affected by limited and/or slow step-down options, social rescues etc. • Difficulty in accessing quick investigation in the community to assess reversible causes/prognostic information to support patients to remain at home. • Poor communication/access to expertise between primary and secondary care settings.

Avoiding each of these has been identified as essential for all patients with life-limiting conditions if end-of-life is to be the best it can be for every individual. The strategy aims to build upon the core service model and successful project work already underway, which to date has shown significant impact both in overcoming referral barriers to non-cancer patients (Supportive Care service) and preventing admissions at the front door (Tidal Zone 1) whilst also providing a highly rated patient experience.

Supportive Care Service

This example of an integrated approach has proven that C&VUHB non-cancer clinicians have changed their referral behaviour and will proactively refer more patients to this new service (referrers report 93% of patients who would not have been referred to usual palliative care). The key element that has enabled this change is a highly integrated co-speciality approach whereby overlapping teams share skills, knowledge and experience to achieve consensus over optimal individualised patient care from a much earlier point in the disease trajectory. Both specialities remain engaged in decisions regarding each patient so that management can be tailored with appropriate stewardship after ensuring full understanding of every patient's evolving preferences and wishes. Patients are under this service for an average of 0.8 of a year. This project is an example of an ***'Integrated Palliative Care Model.'***

Other project initiatives showing successful outcomes include;

- Heart Failure Supportive Care Service expansion
- Expansion of supportive care to 3 additional non-cancer conditions

From a quality lens, Patient-related experience measures (PREM) & Patient -reported outcome measures (PROM) over the last 2 years indicate;

PREM	PROM
• Supportive Care patients responding to postal questionnaires (whole caseload): • 100% would recommend the Supportive Care service. • 100% feel listened to • 100% feel the service is delivered with compassion • 94% feel involved in decision-making • 72% report improved QoL.	EQ-5D-5L for Supportive Care indicated an improvement in their perspective of their (clinic patients): • health (53%), • QoL (68%) • coping (38%) • modest improvements in mobility (25%), • self-care (19%), • usual activities (22%), • pain/discomfort (31%) • anxiety/depression (25%) despite the context of progressive disease.

Tidal Zone 1: C&VUHB front door project:

This project is an example of ***'Early Hospital Discharge Support'***. In Wales for every 1000 people in the last month of life there will be 258 attendances at A&E. In C&VUHB (2022) the Hospital Specialist Palliative care Team (HSPCT) received 1607 overall referrals including 173 for patients who had initially accessed admission via A&E but with most seen in the main hospital much later in their admission.

The Bradford REACT model showed reduction in bed days of approximately 17 days per patient in the last year of life with proactive daily selection of patients from A&E.

Supported by £30K funding from C&VUHB Innovation team and with the aim of adopting a similar front door approach we initiated a project in 2023 with a solo UHW Palliative Care consultant attending the 8am A&E handover and the 11am medical admissions unit board round. The approach was initially to build trust and be more visible as well as supporting joint decision making at a much earlier point in the patient journey.

Evaluation over 5 months showed the following outcomes:

- 63 patients pro-actively identified:
    - 15 patients discharged back to existing community services.
    - 3 were transferred on the same day to the hospice.
    - 15 died within 2-3 days of admission.
    - Others had ongoing palliative care input during their hospital stay.
- Average time from admission to Palliative Care assessment:
    - Usual palliative are = 15.16 days: front door patients = 1.83 days.
    - Time to first palliative care contact reduced by 13 days
- Overall bed day reductions:
    - **306 bed days** saved over 5 months.

Both of these main project areas have been evaluated and show reductions in bed days **(Appendix d).**

Rational for going further:

- Many patients in last year of life are not receiving SPC especially if they have a non-cancer life-limiting diagnosis.
- Those receiving SPC are not experiencing an optimal comprehensive service partly because this is only offered in the last few months of life and also because the current service model is not easily able to adapt to patients who suddenly deteriorate.

6. Option Appraisal

The End of Life and Supportive Care Strategy is a new way of working and a different service vision which will facilitate cultural change across current SPC services and create an integrated overarching service which will function far more efficiently and cost-effectively. It is anticipated that the service will work in a much more comprehensive and co-ordinated way with improved integration and increased joint-working between providers at multiple points including HPCT, CPCT's, Supportive Care, DN's, primary care, non-cancer referrers etc.

With this in mind, choosing to **Do Nothing** is not a palatable or defensible option.

1. Do Nothing:

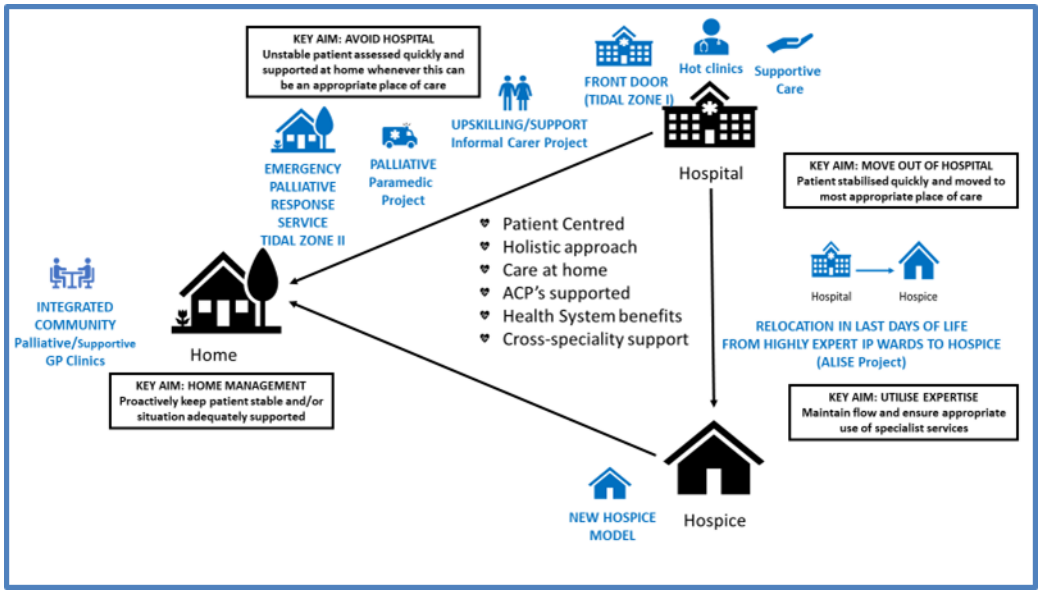
The poor current situation of over-medicalised end-of-life care as well as the inequity of SPC access (especially to those who do not have cancer) will continue and as the population increases by 27% over the next 15 years the crisis in poor end-of-life care and the corresponding unnecessary burden on acute services will worsen.

2. Deliver on the **Strategic Vision** of CAVUHB:

This will enable the service to support care provision in the community, whenever possible, and to facilitate equitable provision of palliative and end-of-life care to all in a manner that meets the aspirations of the Welsh Government Quality Statement.

C&VUHB is committed to establishing a comprehensive value-based service for patients with life-limiting conditions from diagnosis to death. By taking account of the currently available evidence, this has provided a basis for a newly developed C&VUHB Palliative and Supportive Care strategy which we believe can address the current challenges to optimal end-of-life care.

Specific elements that require targeting within the strategy include the redressing of inequity in the provision of palliation to those with non-cancer life-limiting conditions, ensuring that a 'good death' can be experienced by all patients and avoiding unplanned and reactive management at end-of-life. However, we will also be seeking to maintain and further improve service delivery for those patients who die with cancer.



The above diagram describes the key focus areas for targeted evidence-based improvement:

- **Supportive Care service expansion**: to improve equity of palliative access for non-cancer patients by increasing referral rates from teams who actively manage patients with difficult to predict prognoses.
- **Tidal Zone 1 front-door project:** expansion of service to focus on identifying more patients who are destabilising/deteriorating and present to ED or medical assessment unit who may be in last days/weeks of life through proactive identification at front door to give early palliative input to improve symptom control, support decision-making and avoid/shorten hospital admissions.
- **Palliative paramedic roles:** further development, integration and expansion of these roles to ensure postcode equity and to enable increased integration with WAST including taking direct referrals to support appropriate decision-making/management in crisis situations for end-of-life patients.
- **Informal carer resource**: This project supports informal carers with an information resource to help them in their role to support and assist their loved one.
- **Supporting the Hospice Specialist Palliative Care Unit (SPCU) to be specifically a place of expert specialist palliative care provision**: The flow of patients through the hospice has caused limitation to the number of patients who can receive the benefit of access to our most specialised palliative resource.
- **ALISE project:** working towards moving patients off expert clinical areas in hospital and instead transfering to specialist end-of-life care beds capable of managing more complex EoL inpatients in the Hospice. Audit has demonstrated that approx. 250 patients per year die on the cardiology, respiratory, renal and liver expert wards.
- **Tidal Zone 2 enhanced urgent community response service**: to deliver urgent focused palliative care input for patients who are destabilising/deteriorating where home-based assessment with point of care testing (POCT) and emergency supportive/palliative care symptom control plans (ESP-SCP) may avoid admission through early urgent decision-making and management tailored to the patient.

- **Daily hot review Palliative Care/Supportive Care clinics:** access to daily Supportive/Palliative hot clinics with supportive/palliative assessment will enable prompt decision-making, symptom control and tailored management with appropriate stewardship.
- **Community GP joint Supportive/Palliative Care clinics:** building on the success of the C&VUHB integrated community based Paediatric clinics we aim to establish primary care based joint clinics which can similarly share expertise between Supportive/Palliative Care.

A summary of the service model to be delivered can be found at **Appendix e**.

The strategy will also deliver the following Value in Health impact:

- **Personal Value-** Better EoL experience, redressing inequity of access, improved outcomes including better symptom management at EoL
- **Societal Value-** Improved population access to hospice services and contributed to green agenda
- **Allocative value-** Utilising hospital acute beds and hospice beds optimally
- **Technical Value-** Efficient and effective use of costly inpatient hospice resource.

It should be recognised that some elements of the investment will offer more than is apparent on face value e.g. additional benefit of increased CNS in community will be the capacity for a daily CNS led 'single-point of access' rota, palliative paramedics will be supported to work in a more integrated way, Supportive Care will integrate more with the current SPC service to provide better workforce resilience, GP sessions will be involved in joint-clinics so increasing shared-learning and shared decision-making and so further spreading the culture of our vision as GPs will feel more supported and empowered.

The different project elements of the service will crossover considerably and the medical and ANP posts will have a more cross-boundary role e.g. Consultant roles outreaching from hospital to community, between ED and high-intensity wards as well as Supportive/Palliative combined posts. This will not just support integration but also allow buffering between services day by day depending on where is busiest and allow the service to respond more quickly to wherever high priority patients are.

Workforce reshaping within the existing service structure, and closer working with others will also offer the opportunity to improve efficiency through:

1. Integrated administration support between the current Supportive and Palliative Care service elements so that with only an increase of 0.6 Band 4 resource the admin staff can start to work in a more flexible and co-ordinated way as a team. Oversight will be offered by the current Supportive care band 5 who will coordinate the team, collate the required service data and oversee efficiency improvements such as using Dictate-swift and further progress towards a paper-light/paperless service.
2. Improvements in the Hospital Palliative care team (HPCT) including a referral triage hotline, dedicated discharge liaison post to support the informal carer resource provision and fast-track discharges as well as dedicated HCA to support for less complex dying patients will release more senior band 7 CNS staff to allow better utilisation of expertise and for training new staff.

3. Band 4 AHP Technician appointments will allow expansion of the AHP resource to again release more senior expertise: The current Band 8 Specialist Palliative Care Pharmacist located in the Hospice can be released by a Band 5 Pharmacy Technician to support the four improvement project streams. Introduction of Band 4 AHP Technicians can help deliver AHP plans set by their senior Occupational Therapy, Physiotherapy and Dietetic colleagues.

Ambulance teams are also a huge unutilised link as they are already upskilling to provide EoL assessment and give end-of-life medication but they need the structure of a more integrated service to support them. The expansion of the palliative paramedic element of our strategy as well as Tidal Zone 1 and 2 will provide far better joint-working and support for WAST to thereby help further when patients end-of-life destabilise out-of-hours.

The strategy will also offer opportunity to integrate far more with care of the elderly and to increase mutual support into the future which will be essential as numbers of end-of-life patients increases over the next 15 years including a significant increase in elderly and frail.

The core service already maximises agile working and the use of technology as part of its lean and efficient operating structure, however additional desk space will be required at UHW to accommodate the growing clinical team (22 people).

In summary this business case sets out the opportunity to create a comprehensive and value-based model of care, which will be equitable and cost-effective as well as being fit for the future.

7. The Preferred option

The business case recommends the **delivery of the strategy** as the preferred option.

Macmillan are experts in modelling the potential impact of implementing a person-centred proactive service model. The UHB's 2-year dataset has been shared with Macmillan's social finance team to allow them to estimate the potential impact of their social bonding model over 3 years. MacMillian's model anticipates that in the first year the service will reach 30% of the EoL cohort with at least 1 admission in the last year of life and 35% on an ongoing basis. This will result in 25% avoided admissions in the first year and 30% on an ongoing basis. As a result of the revised phasing of the service implementation, and to ensure a prudent impact expectation, the UHB has reduced the anticipated reach in the first year to 20%, 30% in the second year and 35% on an ongoing basis. Their model uses £450 per bed day saved, based on their experience with other providers. It should be noted that the UHB's own analysis has identified a full cost per bed day of £616; £467 excluding overheads. Therefore, using £450 per bed day saved is believed prudent. The economic evaluation is summarised as follows:-

- The Year 1 service cost of £1,230k provides an impact of £2,236k, with a net benefit of £1,006k and a Return on Investment of **1.82.**
- In Year 2 the service cos is £2,437k, with an impact of £4,026k, and a net benefit of £1,589k, the Return on Investment being **1.65**
- In Year 3 and ongoing Years the cost of the service is £2,558k, with an impact of £4,697k, and a net benefit of £2,139k, the Return on Investment being **1.84**
- **Over 3 years the service cost is £6,225k, providing an impact of £10,959k,** with a net benefit of £4,734k and a Return on Investment of **1.76.**

This is summarised in the table below:-
Table 1

	Year 1		Year 2		Year 3	Total 3 Years
Cohort and Current Activity	**2,516**					
People using the service ('Reach' = % of eligible population accessing the service)	**20%**		**30%**		**35%**	
	503	*(2516 * 20%)*	755	*(2,516* 35%)*	880	2,138
NELS for users of the service (using 2.05 av. unplanned NEL admissions in LYL)	1,031	*(503* 2.05)*	1,546	*(755 * 2.05)*	1,804	4,380
Current total number of bed days for people reached by the service	19,880	*(1031 * 19.29)*	29,820	*(1,546 * 19.29)*	34,790	84,489
System Benefit from This Service						
Proportion of NEL admissions avoided by service users ('Impact')	**25%**		**30%**		**30%**	
NEL admissions avoided for service users	258	*(1,031 * 25%)*	464	*(1,546 * 30%)*	541	1,263
Unplanned Bed Days avoided for service users (using 19.29 average LoS)	4,970	*(258 * 19.29)*	8,946	*(464 * 19.29)*	10,437	24,353
Bed capacity released per annum (excluding impact of population growth)	13.6	*(4,970/ 365)*	24.5	*(8,946 / 365)*	24.5	
System Value based on notional value of £450/bed day	£2,236	*(4,970* £450)*	£4,026	*(8,946 * £450)*	£4,697	£10,959
Service cost	£1,230		£2,437		£2,558	£6,225
System Benefit : Net of Service Cost	**£1,006**	*(2,236k -1,230k)*	**£1,589**	*(4,026k-2,437k)*	**£2,139**	**£4,734**
Gross Return on Investment (gross benefits/ service cost)	**1.82**	***(£2,236k/1,230k)***	**1.65**	***(£4,026k/2,437k***	**1.84**	**1.76**

The table above assumes the number of patients who are admitted at least once in the last year of life remains constant i.e. 2,516.

The model is predicated on the principle that the service change will be delivered in a financially sustainable manner and the expectation is that once embedded the service **will deliver opportunity cost savings over and above the required investment.**

A bottom-up demand and capacity assessment has been completed independently of Macmillan. This is detailed in the table below:-

Table 2

	Bed Days Savings	Opportunity Cost Saving
People Using the Service (Reach)	**1,000**	
Supportive Care Expansion	3,150	1,417,500
Tidal Zone 1	1,884	847,800
Tidal Zone 2	4,782	2,151,900
ALISE	1,168	525,600
Total	**10,984**	**£4,942,800**

ROI in year 2 and recurring years **1.93**

The table above estimates the number of bed days saved due to each element of the service. The overall number of patients reached being 1,000 per year with 10,984 hospital bed days avoided. Using £450 per bed-day, as previously described, the total opportunity cost saving per year is £4,943k, with a return on investment of £1.93 for every £1 spent. It should be noted that that there are significant interdependencies between the different service themes, therefore the impact estimated will rarely be due to that one service element in isolation. Whilst the above is modelled on 1,000 individuals being reached, the service assessment predicted it has capacity for approx. 1,200. Once the service is embedded there is the potential to meet a 20% of growth in reach. **This has not been factored into the economic appraisal.**

The table below summaries the expected recurrent impact as calculated by Macmillan and by the service (tables 1 and 2)

	MacMillan Approach	Service Approach
Recurrent Annual Cost of Service	£2,558k	£2,558k
Recurrent Annual Impact	£4,696k	£4,943k
Annual Recurrent ROI	**£1.84**	**£1.93**

Both approaches estimate the impact delivered to be greater than £1.80 for every £1 spent, supporting that that the strategy is expected to be self-financing over the medium term, whilst improving the patient experience and outcomes that matter to the population.

The analysis of the speciality data from the 2-year cohort provides an estimated split of bed-days avoided by clinical board as follows:-

Clinical Board	Bed-days Avoided	%	Beds Equivalent
Critical Care	165	1.5%	0.5
Medicine	8,787	80.0%	24.1
Specialist	549	5.0%	1.5
Surgical	1,483	13.5%	4.1
Total	**10,984**	**100%**	**30.1**

Social Finance / Macmillan Partnership

The prospect of a partnership with Macmillian presents a significant opportunity for the UHB. If approved by both the CaVUHB and Macmillan's Social Finance Board, the UHB will receive a 'social impact bond', with an expected £4m+ over 3 years subject to their final Ops Board approval in January 2025.

The substantial avoidance of bed-days will be the Key Performance Indicator (KPI) which will trigger a repayment of this grant. This KPI is largely negotiated with Macmillan, however the basis for the discussion is contained in Table 1 above, subject to contract. Service implementation is recognised to take a number of years to embed, with limited results in the first year. The social bonding model aims to limit costs to the UHB significantly in the first year of implementation.

If the service does not deliver the expected level of bed day savings, full repayment will not be required. This framework for delivery will be negotiated following UHB approval of the case. Partial repayment will also be featured in the framework. This partnership with Macmillan provides a vehicle which de-risks the implementation of the investment for the UHB. It is recognised that robust KPIs are essential to enable the UHB to gain full advantage of the social bond.

Significant reduction in WAST last year of life call outs are also predicted. Discussions on impact to WAST will be scheduled if the case gets preliminary support.

7.1 Benefits

The strategy demonstrates a new approach to end-of-life service delivery which will successfully demonstrate a blueprint for other Health-Boards in Wales, across the UK and beyond.

Quantifiable benefits	***Non-quantifiable benefits***
Reduction in unwarranted admissions to hospital Reduction in avoidable EU attendances Reduction in Length of Stay Increased number of patients on the GP palliative care register (especially those with a non-cancer diagnosis). Bed day avoidance	Better patient experience at end-of-life ie avoidance factors associated with a poor death. Better Informal Carer experience. Better staff experience through improved integration and coordination of care delivery. Better communication around end-of-life for patients/carers, WAST, primary and secondary care.

7.1.1 Benefits tracker

This section must see the benefits realisation tracker (below) completed for all quantifiable benefits. Where cases are approved this will form a key part of future review meetings with IG and provide assurance as to how benefits are being tracked.

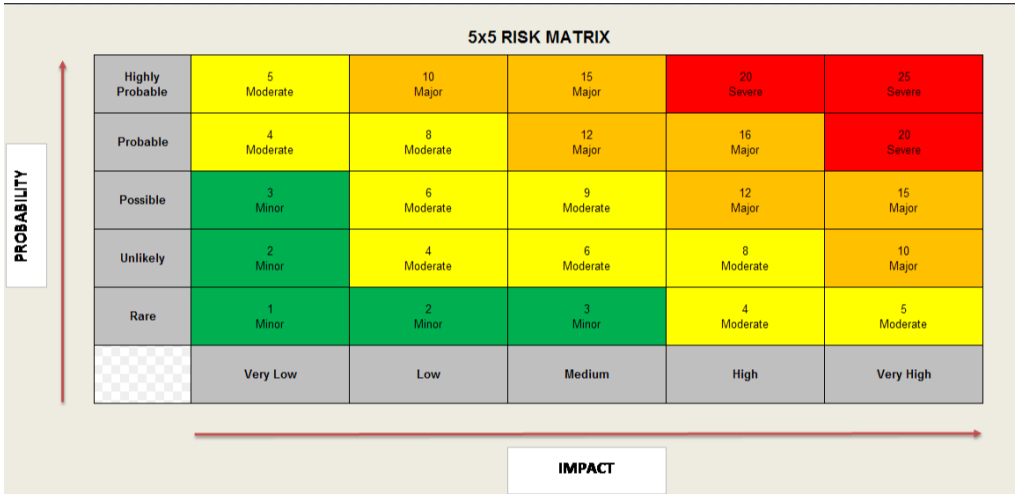
Benefit	Metric	Baseline	Target	Timeline / Ambition
Avoidance EU attendances	Percentage of EU attendances in LYL.	89% EoL patients have WAST contact in LYL.	Reduce to 60% EoL patients having WAST contacts in LYL.	By Year 3, March 2028
Reduction Acute Bed-days	Total Average Bed-days per Patient for the cohort	39.51 bed-days per patient in Hospital in LYL	35.15 bed-days per patient in Hospital in LYL	By Year 3, March 2028, recurrent benefit to be realised
GP Palliative Care Register increases	Percentage of patients at EoL entered onto a GP Palliative/Supportive Care Register	22 %	50%	By year 2, March 2027, with baseline evaluations completed in year 1. Review target in year 2 for year 3.
Pt/Family Experience Measures (PREM)	Civica, Supportive Care PREM questionnaires.	Baseline assessment in year 1.	50% of service users evaluated. All experience parameters to be > 65% satisfaction.	By year 2, March 2027, with baseline evaluations completed in year 1.
Pt/Family Outcome Measures (PROM)	PROM measures including EQ-5D-5L and iPOS.	Baseline assessment in year 1.	50% of service users evaluated. 50% of service users evaluated showing improved scores in measures in LYL during at least one service contact.	By year, March 2027, 2 with baseline evaluations completed in year 1.
Cost Avoidance Savings – Bed days / £	Associated equivalent full cost of bed day / bed reductions	Existing cohort cost base and LOS as set out in the case	£4.7m equivalent full-cost avoidance saving (per Macmillan workings total for 1st 3 years)	By Year 3, March 2028, recurrent benefit to be realised

Measures will also need final agreement with Social Finance to support the funding model and ROI in February 2025.

Risk Title	Descriptor	Probability (1-5)	Impact (1-5)	Total risk score (PxI)	Mitigating Action	Owner
Partnership/Engagement	Working with other two providers as part of the implementation model. (Marie Curie may not agree with model for End-of-Life beds, City Hospice)	3	3	9	Proactive meetings taking place. Continue to describe vision and obtain commitments. Need to include/widen people in discussions and further consultations.	CA
Financial	Financial model needs to comply with SFIs and NHS Accounting rules	3	3	9	Ongoing discussion with Social Finance and internally to clarify the contractual arrangements and ensure compliant in line with other grant accounting / repayment arrangements	Implementation Group
Operations	Pace in which we are able to progress implementation/phasing	3	3	9	Recruitment to key posts and progression of workforce reshaping/change	Implementation Group
Estates provision	Provision of office space (We will need desk space for 22 persons in UHW: programme manager can be home based; Lead Cons session will be incorporated into an already established post; 19 people will be based outside UHW in community eg voluntary sector/ GP clinics.)	4	4	9	Estates are aware of request for increased office space from Supportive Care expansion but will need updating regarding requirement.	Implementation Group

7.2 Risk

Key: 5x5 risk matrix



7.3 Total Cost - Resource Implications and Affordability

Assumed start date	01/04/2025
Funding Source Revenue:	UHB Funding / Social Finance (Macmillan Fund)
Funding Source Capital:	N/A

REVENUE	Band	WTE	Recurrent/ Non Rec	Cost Year 1 PYE	Cost Year 2 PYE	Cost Year 3 FYE
Pay Costs - Staff Type				**£k**	**£k**	**£k**
Lead sessions - Consultant	Cons	0.10	R	18	18	18
Consultant incl. on-call sessions for w/e hot clinics	Cons	2.40	R	114	358	429
GP sessional posts	GP	1.00	R	61	121	121
Speciality doctors/Clinical fellow posts	SPR	2.00	R	162	194	194
Clinical Fellow	CF	1.00	R	68	72	72
ANP	Band 8a	2.00	R	37	146	145
AHP	Band 7	2.00	R	0	128	128
AHP Pharmacy	Band 5	0.60	R	0	17	26
AHP Technicians	Band 4	3.27	R	61	108	116
CNS	Band 7	4.00	R	192	256	256
CNS development posts	Band 6	2.00	R	0	71	106
HCA	Band 4	2.00	R	60	71	71
Palliative Paramedic Lead	Band 7	1.00	R	0	64	64
Palliative Paramedics	Band 6	3.00	R	0	159	159
Admin	Band 4	0.60	R	0	22	22
Fast Track DLNs	Band 7	1.20	R	77	77	77
Hospice @ Home HCAs	Band 3	6.00	R	64	192	191
Hospice nurse-led beds:						
· CNS	Band 8a	1.00	R	0	73	73
· AHP Tech	Band 4	2.00	R	36	71	71
· HCA	Band 3	2.00	R	0	64	64
Operational Lead (Programme Manager)	Band 8b	1.00	R	85	85	85
TOTAL PAY		40.17		**1,033**	**2,367**	**2,488**

REVENUE				Cost Year 1 PYE	Cost Year 2 PYE	Cost Year 3 FYE
Non Pay				**£k**	**£k**	**£k**
IT / Non-Cap				88		
Wearable bracelets				30		
POCT Testing				30	50	50
Office Equipment				15		
Travel Expenses				24		
Other Staff-related non-pay incl. training				10	20	20
TOTAL NON PAY				**197**	**70**	**70**
				1,230	**2,437**	**2,558**

Appendix f sets out the theoretical social bond cost / benefit model and phasing over the next four years. This is predicated on the current KPI and Macmillan repayment contract assumptions and also a bed closure commitment from the UHB to support cash releasing savings alongside any efficiency / cost avoidance impact. The Medicine Beds outlook is provided in **appendix g** as a point of reference also.

Appendix c - References:

1. *Hunt, K. J., Richardson, A., Darlington, A.-S. E., & Addington-Hall, J. M. (2019). BMJ Supportive & Palliative Care, 9(1), e5.*
2. *SAIL databank reference 1431*
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4. *Taylor, R., Ellis, J., Gao, W. et al. A scoping review of initiatives to reduce inappropriate or non-beneficial hospital admissions and bed days in people nearing the end of their life: much innovation, but limited supporting evidence. BMC Palliat Care **19**, 24 (2020). https://doi.org/10.1186/s12904-020-0526-2*
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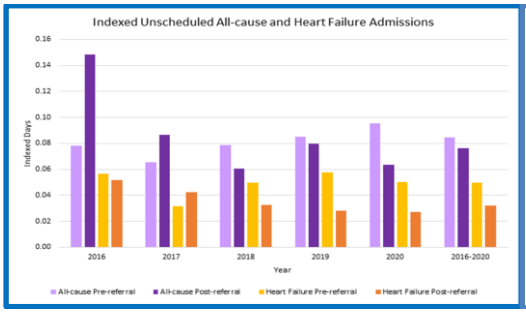
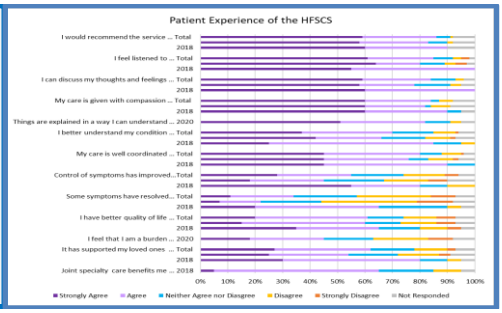
7. *Singer et al JAMA 1999; 281:163-48; Kraai IH, Vermeulen KM, Luttik MLA, Hoekstra T, Jaarsma T, Hillege HL. Eur J Heart Fail. 2013; 15(10): 1113-21.*
8. *Janke et al. BMC Palliative Care. A palliative care approach for adult non-cancer patientswith life-limiting illnesses is cost-svaing or cost neutrala systematice review of RCTs. 2024; 23(200).*
9. *Abel J, Rich A, Griffin T, et al. End-of-life care in hospital: a descriptive study of all inpatient deaths in 1 year. Palliat Med. 2009;**23**:616–622.*
10. *Durand A, Bourgeon S, Lam A, et al. Cost-effective commissioning of end of life care. User guide for the end of life economic analysis tool. London: Report, Public Health England; 2017.*

Appendix d - Evaluation Outcomes:

Heart Failure Supportive Care service (HFSCS) outcomes:

- Initiated in 2015 to redress inequity of palliative input in non-cancer patients.
- Evaluation at 5 years showed value-based outcomes for 236 patients referred:
    - Statistically significant reductions in heart failure-related admissions over 5 years: actual days 18.3 to 4 days ($p<0.001$); indexed days 0.05 to 0.032 days ($p=0.03$) = approximately 14 bed days saved per patient.
    - Cost mapping revealing an estimated average saving of £1500 per 1-week in-patient admission managed at home.
    - Reduced in-hospital deaths: 50% lower than usual anticipated rates (usual rate approximately 80%).
    - Highly rating patient experience.





Supportive Care expansion to 3 additional non-cancer conditions:

- 205 patients over 18 months (July 2022 – March 2024): liver n = 77; renal n = 40; respiratory (ILD) n = 88.
- Referrer survey: barriers to palliative care overcome (96%); majority patients unsuitable for usual palliative care (92%); average service rating 9.54/10.
- Reduced relative increase of time in hospital leading up to death (new service versus control group): liver 373% to -47%; renal 137% to -18% and ILD 407% to 117%.
- Reduced end-of-life as an in-patient to approx. 50%.
- Overall bed day reductions: 1,211 reduced bed days over 18 months.

Comparison of indexed Bed Days

		All Unscheduled Care Beddays				Disease Related			
	Measures	Liver	Renal	ILD	HF	Liver	Renal	Respirator	HF
Control Group Cohorts	Number of Patients	109	224	37		109	224	37	
	Index Penultimate Year before Death	0.034	0.036	0.010		0.011	0.007	0.007	
	Index Last Year before Death	0.199	0.082	0.054		0.116	0.024	0.019	
	% Increase in Ratio Post to Pre Referral Period	493%	125%	459%		998%	228%	190%	
New Service Cohorts	Number of Patients	61	31	67	74	61	31	67	74
	Index Pre referral (Year period)	0.085	0.027	0.024	0.066	0.018	0.004	0.009	0.032
	Index Post referral (Variable Period)	0.031	0.039	0.046	0.044	0.010	0.003	0.012	0.014
Cohorts	% Increase in Ratio Post to Pre Referral Period	-64%	32%	70%	-33%	-42%	-20%	24%	-56%

The Index Presents the ratio of the number of acute bed days which occurred, compared to the number of possible bed days i.e. the number of days in the period.
Each patient will have a different denominator of possible days as a result of different referral rates and unique dates of death

Appendix e – Service Summary

Cardiff & Vale University Health Board – Palliative and Supportive Care Services

Element	Detail	Annual Cost
Supportive Care	• Encourages much earlier referral with an overlapping co-speciality involvement throughout the patient journey which offers shared decision-making and learning through parallel/ joint clinics, regular multidisciplinary meetings and tailored individualised management. • Building on success of roll out within heart failure, advanced liver disease, advanced renal disease and interstitial lung disease. • Key elements of the service: 1. Highly integrated co-speciality working; 2. Tailored management focused on quality as well as quantity of life; 3. Outreach from secondary care to reconnect patients to primary care; 4. Rationalising not rationing of care; 5. Flexible service model which re-empowers patients in their healthcare choices & supports understanding of the potential impact of their choices; 6. Greater personalised value. **Required capacity:** 0.1 WTE Consultant Lead; 0.5 WTE Speciality Doctor; 2.0 WTE CNS Band 7; 1.0 WTE CNS Band 6 Development role; 2.0 WTE AHP Band 7; 2.0 WTE AHP Tech Band 4; 1.0 HCA Band 4.	**£467,902.98**
Front Door	This initiative focuses on patients presenting to front-door services who are destabilising or deteriorating and who may be in the last days or weeks of life. Proactive identification of patients with unmet palliative care needs at the front door to allow early specialist palliative input and so improve symptom control, support decision-making and avoid/shorten hospital admissions. • Building relationships and trust with front-door staff and increasing Hospital Palliative Care Team (HPCT) visibility. • This allows joint decision-making at an earlier point to support patient choice and improve stewardship so influencing individual patient management. • We plan to build on & expand the initial pilot phase to allow increased palliative support throughout the day Mon-Fri 8am - 5pmas well as a wider team-skill mix. **Required capacity**: 0.5 WTE Consultant; 0.5 WTE Speciality Doctor; 0.5 WTE ANP Band 8; 1.0 WTE AHP Tech Band 4; 0.6 WTE DLN Band 6.	**£225,971.00**
Community Outreach	This project aims to support patients with life-limiting diagnoses who are destabilising or deteriorating in the community.	

	• It will deliver prompt proactive assessment, allowing early shared decision-making and patient-centred management for patients in last year of life. • This will support patients who wish to avoid admission so enabling more to be at home in last days of life and so providing a better patient-centred experience. • This will deliver rapid access to specialist palliative care input as well as the acute response skills offered by palliative paramedics. • This initiative will include point of care testing (POCT) to allow bedside assessment, emergency supportive/palliative care symptom control plans (ESP-SCP), wearable QR code medical alert wristbands containing protected-access information held by the patient as well as other 'palliative' management strategies such as s/c Furosemide infusion, s/c antibiotics as well as access to the Hot Clinic service. • The project will aim to integrate closely with other Healthcare Professional teams eg GP's, DN's, WAST, community Specialist Pall care and other community project teams eg Further Faster, Community Infrastructure agendas, Safe@Home project etc. This offers additional benefits from sharing of skills. **Required capacity:** 0.5 WTE CONS; 0.5 WTE Speciality Doctor; Paramedics:3.0 WTE Band 6, 1.0 WTE Band 7; 0.4 WTE AHP Tech Band 4.	**£346,434.55**
ALISE Expert Clinical Area	The main aim of this project is to integrate with highly specialised clinical areas (eg ITU, the liver, renal, respiratory and coronary care units), whilst also working with the Patient At Risk Team (PART) to proactively identify patients who are deteriorating and unsuitable for further escalation of care. When these patients are approaching end-of-life, de-escalation of active measures can instead happen in a planned fashion at the Hospice. Key project aims include: • Support to proactively transfer patients off expert wards to ring-fenced beds in the SPCU/Hospice as a more appropriate environment for end-of-life care. • Increased access to the Hospice for their expertise in complex inpatient dying. • Increased access to carer support pre and post bereavement through the SPCU/Hospice. • Improved flow through highly expert wards to increase bed access for more likely to survive from a potentially recoverable condition. **Required capacity:** 0.5 Consultant; 0.5 WTE Speciality Doctor; 0.5 ANP Band 8.	**£154,630.50**
Elements to support the implementation	1. **Improving the hospice patient flow:** • Better patient stratification on basis of need by use of a prioritisation tool. • Ring-fencing beds for patients with short prognosis who are deteriorating on expert wards.	**£220,808.34**

and delivery of the above services	• Different use of beds to redress inequity eg non-cancer patient day case procedures. • Step down nurse-led beds for non-complex end-of-life patients. **Required Capacity – 1 Band 8 CNS, 0.6 WTE Band 4 AHP Tech, 2 Band 4 HCA, 2 Band 3 HCA** 2. **Informal carer resource:** • Provision of an informal carer information resource to support and assist those caring for a loved one. • Evaluation of 30 Fast-Track patients achieved 100% preferred place of death with no readmissions. 3. **Palliative Care/Supportive Care hot review clinics**: • Easy access to daily urgent Palliative/Supportive Care review. • Prompt decision-making, symptom control and tailored management with appropriate stewardship. • Urgent access to investigations needed to support decision-making to assess and enable home management and admission avoidance as well as early discharge support. • Will facilitate rapport building to support Future Care Planning conversations at points of crisis. **Required Capacity – 0.3 WTE Consultant, 0.4 WTE OOH Consultant, 0.8 WTE Band 8 ANP, 0.3 WTE Band 4 Admin** 4. **Development and evaluation of an end-of-life audit tool:** • Project work with medical examiners to establish appropriate and accurate quality and risk evaluation. This will focus on themes of 'poor' end-of-life eg uncontrolled symptoms, basic human needs unsupported; inequity of access; lack of honest compassionate communication; over-medicalised vs reversible clinical factors not addressed; carer isolation/overwhelm; lack of compassionate care etc. 5. **Community GP joint Supportive/Palliative Care clinics:** • Development of hub and spoke linked community clinics for better joint-working with GPs to help recognise and support patients at EOL in the community in all C&VUHB GP clusters. • Community clinics offering urgent symptom control access for patients. • Linking into secondary care specialists through co-speciality SC MDTs. • Easy access to advice, guidance and support from supportive/palliative care. • Relationship building to support Future Care planning conversations and establishing of robust FCPs. **Required Capacity – 1 GP, 0.2WTE Consultant, 0.5 WTE Band 8 ANP, 0.3 Band 3 Admin** 6. **Single Point of Access Hub:**	**N/A** **£145,049.25** **N/A** **£203,262.75**

	• CNS Coordination of Supportive/Palliative Care service resource 7 days 9am to 5pm a week supporting access and resource efficiency and so assist patients in entry to all areas of service on a flexible and timely basis. **Required Capacity – 2 Band 7 CNS** 7. **Hospice @ Home Expansion:** • Increased available of dedicated hands-on formal care which can be accessed quickly to support patients to remain at home or to be returned home from ED. **Required Capacity – 6 Band 3 HCA** 8. **Expansion and change of skill mix of usual hospital palliative care team:** • Release of staff with substantial expertise in Palliative Care to other project areas. • Increases ability to co-ordinate workforce to respond flexibly to increasing caseloads across different project areas on a day-to-day basis. **Additional costs:** POCT, wearable devices, IT, office equipment, travel.	**£123,904.00** **£184,878.00** **£171,781.10** **£235,000.00** **£1,311,683.40**
		£2,506,622.30

Appendix f – Social Model

Theorectical High-Level Social Bond / Benefits Realisation Model

		2025/26					2026/27					2027/28					2028/29				
		Q1 £m	Q2 £m	Q3 £m	Q4 £m	Year 1 £m	Q1 £m	Q2 £m	Q3 £m	Q4 £m	Year 2 £m	Q1 £m	Q2 £m	Q3 £m	Q4 £m	Year 3 £m	Q1 £m	Q2 £m	Q3 £m	Q4 £m	Year 4 £m
Social Finance:	Social Bond Income	(0.253)	(0.213)	(0.366)	(0.366)	**(1.199)**	(0.571)	(0.617)	(0.640)	(0.640)	**(2.468)**	(0.333)				**(0.333)**					**0.000**
Macmillan	Social Bond Repayment (indic')					**0.000**	0.250	0.250	0.500	0.500	**1.500**	0.500	0.750	0.750	0.250	**2.250**					**0.000**
Business Case	Resource input costs	0.253	0.213	0.366	0.366	**1.199**	0.571	0.617	0.640	0.640	**2.468**	0.640	0.640	0.640	0.640	**2.558**	0.640	0.640	0.640	0.640	**2.558**
	Benefits realisation Wards incl. AHP					**0.000**	(0.014)	(0.014)	(0.739)	(0.739)	**(1.506)**	(0.739)	(0.739)	(0.739)	(0.739)	**(2.957)**	(0.739)	(0.739)	(0.739)	(0.739)	**(2.957)**
	Benefits realisation Medical & Other											(0.493)	(0.493)	(0.493)	(0.493)	**(1.971)**	(0.493)	(0.493)	(0.493)	(0.493)	**(1.971)**
		0.000	0.000	0.000	0.000	**0.000**	0.236	0.236	(0.239)	(0.239)	**(0.006)**	(0.425)	0.158	0.158	(0.342)	**(0.453)**	(0.592)	(0.592)	(0.592)	(0.592)	**(2.370)**

Bed days	
Suportive Care	3,150
Todal Zone 1	1,884
Tidal Zone 2	4,782
ALISE	1,168
Bed day opportunity	10,984
Equivalent beds	**30**
Cohort cost per day	£ 616
Modelled rate per day	£ 450 excl. overheads

Cohort Costing Breakdown Per Day	£
Wards	279
Therapies	37
Drugs & Blood	17
Path & Rad	18
Medical Staff	64
Sp. Nursing	9
Other Clin Supplies and Services	30
	454

Indicative Direct Medical Ward Per Day	£k
Medical	19
Nusing	173
AHP, Prof & Tech	52
Facilities & Admin	20
Non-Pay	33
	298

Modelling assumes £450 benefit realisation - 60% cost release on wards in Yr 2 at £270

Important Points To Note

There is a meeting with Social Finance to work through the contract and flexibilities in February - this will define the final KPI and repayment terms
Benefits realisation is assumed per the business case analysis with a £450 per bed day rate, as opposed to the £616 full cost rate of the cohort
The model assumes a minimum of 30 bed closures or an equivalent benefit is realised, with minimum 6-mth PYE in 2026/27 as part of bed plans
There may be a case to disclose or provide for a contigent liability at the end of Year 1, which will be consideration for the accounts.
If the realised LOS benefits exceed the bed closure plans in Year 2, this may need provision where repayment is 'probable and measureable'.

Appendix g – Medicine Beds Outlook

MCB Beds

Notes / Assumptions

- Current AvLOS – 13.7 days
- Peer AvLOS – 11.9 days
- Peer UQ AvLOS – 10.2 days
- 98% occupancy

Gradual Improvement

- Achieve Peer AvLOS by Feb 2026
- We then take 2 years to achieve UQ LOS by Feb 2028
- Occupancy aim is 98%
- Remove 30 beds either October 26 or April 27 to begin repayment to Macmillan

Actions to deliver

- Grip and control on flow and process
- Model Ward
- Optimal flow framework

Remaining gap requires demand management

	All Emergency Demand*	Medicine beds required to meet demand with current LOS and 98% occupancy	Medicine beds required to meet demand with CHKS ave LOS by March 2026 & 98%occupancy (the plan)	Funded Beds	Gap between plan and funded beds	Medicine beds required to meet demand with current LOS and 98% occupancy	Medicine beds required to meet demand with CHKS UQ LOS by March 2028 and 98% occupancy (the plan)	Funded Beds	Gap between plan and funded beds
Mar-25	3538	706	706	658	-48				
Apr-25	3516	678	673	658	-15				
May-25	3578	678	667	618	-49				
Jun-25	3547	684	667	618	-49				
Jul-25	3602	687	664	618	-46				
Aug-25	3640	685	656	618	-38				
Sep-25	3649	690	656	618	-38				
Oct-25	3799	707	666	618	-48				
Nov-25	3819	723	675	618	-57				
Dec-25	3853	720	666	658	-8				
Jan-26	3751	786	720	658	-62				
Feb-26	3538	786	714	658	-56				
Mar-26	3782					744	676	658	-18
Apr-26	3759					716	647	658	11
May-26	3822					716	643	618	-25
Jun-26	3791					722	643	618	-25
Jul-26	3846					725	642	618	-24
Aug-26	3883					723	636	618	-18
Sep-26	3893					728	637	618	-19
Oct-26	4043					745	647	618	-29
Nov-26	4063					761	657	618	-39
Dec-26	4096					758	650	658	8
Jan-27	3995					824	702	658	-44
Feb-27	3782					824	697	658	-39
Mar-27	4026					782	658	658	0
Apr-27	4003					755	631	628	-3
May-27	4066					755	626	588	-38
Jun-27	4035					761	627	588	-39
Jul-27	4090					765	626	588	-38
Aug-27	4127					763	620	588	-32
Sep-27	4137					768	620	588	-32
Oct-27	4287					782	626	588	-38
Nov-27	4307					798	635	588	-47
Dec-27	4340					795	628	628	0
Jan-28	4239					862	676	628	-48
Feb-28	4026					862	671	628	-43