

## BUSINESS CASE INITIATION PROPOSAL

**JIRA Ref: PLAN-** *should have already been registered with Business Planning/JIRA*

**Date**

<b>Guidance</b>
<p>This proforma must be completed:</p> <ul style="list-style-type: none"> <li>- where a proposal will require investment, with an estimated value <b>greater than £100k</b>, to be made.</li> <li>- <b>as part of a project initiation meeting</b>, involving representation from the service, finance, planning, estates and commissioning, as required.</li> </ul> <p>To complete this please:</p> <ul style="list-style-type: none"> <li>- <b>Use bullet points and summary tables.</b></li> <li>- Bear in mind that costs and space requirements may need to be estimated.</li> <li>- Do not exceed <b>4 sides</b>.</li> <li>- Provide a job plan (Appendix B) and complete the consultant checklist (Appendix C), for <b>consultant appointments</b>.</li> </ul> <p style="background-color: yellow;"><b>On completion of the proforma, please delete this section and Appendices A. Please also delete Appendices B and C if they are not required.</b></p>

Lead Clinician
Author
Other contributors (Name/Title)
1. Summary of Proposal
<p>The proposed position for a Paediatric Exercise Therapist (PET) will focus on the delivery of exercise interventions for children and young adults (CAYA) with cancer in Oxford hospitals – both hospitalised and day care patients. It will be supported by the Active Hospital consultant led team. The aim is to improve the health and wellbeing of paediatric cancer patients and educate them and their parents towards a more active lifestyle in order to improve long term health outcomes and combat potential side effects of the cancer treatment.</p> <p>The position will be based at (x)). Depending on the current requirement and resources available it might also be possible to provide exercise therapy to other paediatric patients.</p> <p>We are asking for a 50% FTE exercise therapist to deliver the intervention within (x) and outpatient settings., to improve the physical activity culture within the ward and in outpatients, to train other staff in how to deliver brief intervention in physical activity, to collect data to support the project in the long term and to follow the governance processes already set up through the OUHFT active hospital pilot.</p> <p>The Exercise therapist will have the support of the consultant led Active hospital Team and will report to their governance meeting and to the Paediatric cancer governance meetings.</p>
2. What is the issue that is being addressed? What will the benefits of the proposal be?
The role of physical activity in childhood cancer is of emerging importance with the majority of studies

relating to patients with acute lymphoblastic leukaemia (ALL)<sup>1</sup> and incorporating small numbers of patients with varying physical activity interventions. Cancer in childhood and adolescence impacts on biological, physical, psychological, emotional, social, and cognitive development. Long-term survivors of childhood ALL, for example, are less likely to meet physical activity recommendations increasing their risk of cardiovascular disease, osteoporosis, and all-cause mortality<sup>2</sup>. There is a high burden of long-term and late effects including an increased risk of cardiovascular disease, metabolic and endocrine dysfunction, obesity, reduced bone health and psychological wellbeing, with the overall impact highly variable between children and cancer type. Treatments including chemotherapy, radiotherapy, and high dose steroids all have the potential to cause complications and impact on cardio-pulmonary fitness. Anthracycline therapy in particular has cardiotoxic effects leading to a decline in left ventricular function and cardiomyopathy. Thus, a clear understanding of the impact of cancer and cancer therapy is required to develop a tailored approach to physical activity interventions.

In general, physical activity interventions in children with cancer, result in an improvement in cardiorespiratory fitness, lung function and exercise endurance<sup>23</sup>. Fatigue is a commonly reported symptom during treatment and following cancer<sup>3 4</sup> and physical activity appears to improve cancer related fatigue in children<sup>5 6 7</sup> particularly following treatment<sup>8 9</sup>. Whilst studies in children generally recruit relatively small numbers, meta-analyses conducted on 57 RCTs in adult cancer patients indicated that exercise and psychological interventions reduce cancer related fatigue<sup>10</sup>. Cancer and cancer-related therapies also have a significant psychological impact<sup>11 12</sup>. In a number of studies in the hospital and community setting, physical activity improves self-esteem, quality of life, confidence and quality of sleep<sup>27, 13 14</sup>. Side effects that are commonly associated with cancer treatment can all be addressed by exercise therapy during hospitalisation.

The Long-term plan emphasises the importance of prevention in the management of disease<sup>15</sup>. This is also

<sup>1</sup> Braam KI, van der Torre P, Takken T, Veening MA, van Dulmen-den Broeder E, Kaspers GJ. Physical exercise training interventions for children and young adults during and after treatment for childhood cancer. *Cochrane Database Syst Rev*. 2016. 31;3:CD008796

<sup>2</sup> Florin TA, Fryer GE, Miyoshi T, Weitzman M, Mertens AC, Hudson MM, Sklar CA, Emmons K, Hinkle A, Whitton J, Stovall M, Robison LL, Oeffinger KC. Physical inactivity in adult survivors of childhood acute lymphoblastic leukemia: a report from the childhood cancer survivor study. *Cancer Epidemiol Biomarkers Prev*. 2007;16(7):1356-63.

<sup>3</sup> Jóhannsdóttir IM, Hjermstad MJ, Moum T, Wesenberg F, Hjorth L, Schrøder H, Mört S, Jónmundsson G, Loge JH. Increased prevalence of chronic fatigue among survivors of childhood cancers: a population-based study. *Pediatr Blood Cancer*. 2012;58(3):415-20.

<sup>4</sup> Nagai A, Zou N, Kubota M, Kojima C, Adachi S, Usami I, Okada M, Tanizawa A, Hamahata K, Matsubara K, Higuchi M, Imaizumi M. Fatigue in survivors of childhood acute lymphoblastic and myeloid leukemia in Japan. *Pediatr Int*. 2012;54:272–276.

<sup>5</sup> Lam, K., (2018) An integrated experiential training programme with coaching to promote physical activity, and reduce fatigue among children with cancer: A randomised controlled trial, *Patient education and counseling*, 101 (11)

<sup>6</sup> Oberoi, S., (2018) Physical activity reduces fatigue in patients with cancer and hematopoietic stem cell transplant recipients: A systematic review and meta-analysis of randomized trials. *Crit Rev Oncol Hematol*. 122:52-59

<sup>7</sup> Yeh, C.H., et al., (2011) A pilot study to examine the feasibility and effects of a home-based aerobic program on reducing fatigue in children with acute lymphoblastic leukemia, *Cancer Nursing*, vol. 34, no. 1, pp.3–12.

<sup>8</sup> Blaauwbroek, R., Bouma, M.J., Tuinier W. et al., (2008) The effect of exercise counselling with feedback from a pedometer on fatigue in adult survivors of childhood cancer: a pilot study, *Supportive Care in Cancer*, pp. 1–8

<sup>9</sup> Keats, M.R, Culos-Reed S.N., (2008) A community-based physical activity programme for adolescents with cancer (project trek): Programme feasibility and preliminary findings. *J Pediatr Hematol Oncol* ;30:272–280

<sup>10</sup> Kangas M, Bovbjerg DH, Montgomery GH. Cancer-related fatigue: a systematic and meta-analytic review of non-pharmacological therapies for cancer patients. *Psychol Bull*. 2008 Sep;134(5):700-741.

<sup>11</sup> Hicks J, Bartholomew J, Ward-Smith P, et al. Quality of life among childhood leukemia patients. *J Pediatr Oncol Nurs* 2003; 20: 192–200.

<sup>12</sup> Enskar K, von Essen L. Physical problems and psychosocial function in children with cancer. *Paediatr Nurs* 2008; 20: 37–41.

<sup>13</sup> Speyer E, Herbinet A, Vuillemin A, Briançon S, Chastagner P. (2010) Effect of adapted physical activity sessions in the hospital on health-related quality of life for children with cancer: a cross-over randomized trial. *Pediatr Blood Cancer* ; 55:1160–6.

<sup>14</sup> Keats, M.R, Culos-Reed S.N., (2008) A community-based physical activity programme for adolescents with cancer (project trek): Programme feasibility and preliminary findings. *J Pediatr Hematol Oncol* ;30:272–280

<sup>15</sup> <https://www.england.nhs.uk/long-term-plan/>

an important part of the green paper on prevention<sup>16</sup>. NHSe and Public Health England are both working on agenda to improve population physical activity levels through health care and in particular those living with long term conditions.

Moving Medicine([www.movingmedicine.ac.uk](http://www.movingmedicine.ac.uk)) are publishing explicit guidance for health care on delivering physical activity interventions in children and adolescents with a module relating to childhood cancer.

The role of personalised health care is increasingly important and these concepts should be carried through to paediatric settings, particularly where it refers to lifestyle change.

The services of the PET will potentially influence physical activity levels and dietary and lifestyle choices within the population at all life stages. This has already been demonstrated by the Active-Onco-Kids network in Germany where exercise therapy has been established in 15 hospitals for paediatric oncology.

Similar interventions in other long term conditions across the trust have been tested for feasibility, acceptability and scalability as part of the active hospital pilot ('17-date). Through this pilot there already exists extensive resources to support interventions such as these including resources to change the environment, pathway design based on insight work done at OUHFT and governance frameworks.

3. Why is this proposal important to the OUH? How does this proposal support the delivery of the OUH's strategic themes as described in Appendix A (proposals involving capital investment must reference the Master Plan). Does the proposal address actions from the Focus on Excellence feedback?

The service will be supported in partnership with the OUHFT Active Hospital Service who will provide resources, governance and consultant and senior therapy support for the role. The Active Hospital Pilot already supports other high risk pathways in this way, including cardiology, prosthetics, maternity, complex medical wards and transplant pathways. The active hospital service has been established in OUHFT for 2 years.

The service will also be supported by Moving Medicine, a Faculty of Sport and Exercise Medicine initiative, supported and endorsed by RCPCH which has developed clinician facing resources for clinicians working with young people with cancer and other long term conditions. In addition it will be supported by the new Moving Medicine patient facing resources

This service will be an example of OUHFT working across directorates and disciplines to provide evidence based care in all environments. This fits in well to strategic planning currently at executive level in terms of prevention. There is an opportunity to develop an adolescent group through the Churchill site to test the use of wearable technology to link into potential EPR patient held records which would be supported by the trusts digital strategy.

4. How does the proposal contribute to the delivery of the Division's Business Plan?

- Reference back to programme and project number within Directorate / Divisional business plan. Reinforces that the business case has Directorate/Divisional sign off and is part of an integrated plan.
- If not in business plan, why not? I.E. In-year response to an unforeseen issue?

5. How does the proposal deliver transformation?

Due to the improvement in cancer treatments and increased number of childhood survivors, late side effects should be increasingly considered. Commonly reported late side of childhood cancer patients include impaired growth, intellectual and pubertal development (Schwartz, 1995). The risk of other chronic health conditions is higher for childhood cancer survivors, including secondary

<sup>16</sup> <https://publichealthmatters.blog.gov.uk/2019/07/23/the-prevention-green-paper-a-chance-to-turn-talk-into-action/>

malignancies, cardiovascular disease, severe musculoskeletal problems, reduced neurological function, renal dysfunction and endocrinopathies (Huang and Ness, 2011; Oeffinger et al., 2006). One study of 10,000 adult survivors of childhood cancer reported that 62.3% suffered from one or more chronic health conditions and 27.5% suffered from a severe and life-threatening condition (Oeffinger et al., 2006).

It is therefore imperative that survivors minimise the risk of preventable risk factors of such conditions through adopting positive and healthy lifestyle choices. The PET can not only educate the patient and parents about these healthy lifestyle choices – especially in regards to exercise, but will also be engaged in the education of health professionals on this topic and therefore work closely with the Moving Medicine initiative. Another role of the PET will be to evaluate the impact of the new intervention and work closely with researchers. This role will offer a USP to the OUHT that could be rolled out nationally and will most importantly address and prevent multiple comorbidities of the patients later in life. The physical, but also psycho-social aspects of exercise therapy during and after hospitalisation will support other treatments in terms of treating side effects and possibly lead to reduced follow up costs reducing the costs for community based services.

A recent study investigated the effect of a supervised hospital-based exercise programme for childhood cancer patients and concluded that the exercise group had significantly less days of hospitalisation compared to the non-exercise control group. This reduction resulted in a lower mean (~17%) total economic cost of hospitalisation (Morales et al., 2019). This is specifically important when considering the high economic burden that childhood cancer treatment represents for healthcare systems and the added substantial economic burden treating diseases associated with inactivity.

Morales, J., Santana-Sosa, E., Santos-Lozano, A., Baño-Rodrigo, A., Valenzuela, P., Rincón-Castanedo, C., Fernández-Moreno, D., González Vicent, M., Pérez-Somarriba, M., Madero, L., Lassaletta, A., Fiuza-Luces, C. and Lucia, A. (2019). Inhospital exercise benefits in childhood cancer: A prospective cohort study. *Scandinavian Journal of Medicine & Science in Sports*.

6. What other options have been looked at? (Including consideration of alternative approaches to service delivery e.g. using current staff differently, using another professional group to undertake the work, using physical resource such as space differently)

The current workload of physiotherapists does not allow them to see every patient on a regular basis and they have to prioritise them according to the severity of the side effects of the cancer treatment. This was also demonstrated by a service improvement study that was conducted in the JR hospital in 2019. Exercise therapy services using age specificity and holistic principles of training applying sport psychological methods is not necessarily part of a physio's work specification and training. The aforementioned service improvement study results will be released in OCT 2019, but interim results have shown that it was very well received by patients and their parents as well as health care professionals. The three exercise taster session also seem to have had an educational effect on the children and their parents which could influence PA behaviours in a family long term.

Part of the role of the exercise therapist will be to improve skills, knowledge and culture surrounding physical activity in the wider staffing of the ward. Similar approaches have worked well in other hospital pathways across the trust, and have been externally evaluated as feasible and acceptable to staff and the general culture of the organisation.

The aforementioned service improvement study showed that most paediatric cancer patients do not receive physiotherapy on a regular basis unless they present severe side effects of the medical treatment. However,

this does not mean that children without severe side effects do not require regular exercise interventions while hospitalised or receiving treatment as this will improve their overall health status, speed up the return to normal functioning and prevent long term negative effects of cancer treatment.

7. What will you do if this proposal is not prioritised for investment?

- No exercise therapy services and/or pathway will be accessible to patients if this position is not funded.
- Potentially delayed development due to lack of physical literacy.
- Increased risk of the development of comorbidities.
- Increased follow up health care costs as a result of the points above – up to 17% (Morales J, et al 2019)

8. What discussions have taken place with others? (E.g. divisional management team including DME approval date, relevant directors, other affected services). Please list all support services (name of service/manager or clinician) directly consulted on this proposal.

- Date for DME and decision (or Directorate Management Board with Divisional representation?)
- Is this an issue supported by particular Executive Directors?
- Does this proposal have an impact on particular support services? Have you discussed with them? Do they approve?

Support Services:

- Radiology -
- Pathology -
- Pharmacy -
- ICU/Anaesthetics -
- Therapies –
- Other -

9. Assessment of Estimated Financial and Commissioning Implications

The exercise interventions will be conducted as per the service improvement study in the patient rooms, the corridor and play room as adequate. Additional space requirements will be minimal and only include a hot desk and storage room for exercise equipment which will only require 4m<sup>2</sup> (2m<sup>2</sup> for a locker and 2m<sup>2</sup> open space for larger items). The equipment will require an investment of approx. (x)

- BCIP cannot go to DME or BPG unless the financials have been reviewed and signed off by Carol Ann as Divisional Finance Business Partner (or nominated deputy)
- Include space and infrastructure (or there are none)
  - o Including office space for e.g. new appointments
  - o Enabling works and/or equipment
  - o It may be that there are space requirements but no solution at present – state this
- Include PLICS– profitability or loss reported in PLICS most recently
- Include any assumptions as bullet points e.g. what tariff using

PROMPTS FOR DELETION

Please complete the following table (with accompanying narrative/statement of assumptions as required) specifying :

- The size of the current service i.e. numbers of patients, current expenditure and income budgets
- What is your assessment of the impact of your proposal on activity?
- What impact will this have on income? (The Commissioning Team will help with any background information on who commissions the service, PbR or non PbR, any proposed tariff changes etc).
- What is your assessment of the additional resources that are going to be required (this must include an

<p>assessment of space requirements) with an estimated cost (“ballpark figure” – revenue and capital)?</p> <ul style="list-style-type: none"> <li>• Please explain how the revenue and capital costs will be paid for. (Will the costs be covered by income? Is there any other available funding? Savings - are these already in CIP? Is any capital requirement in the capital programme?)</li> <li>• Please confirm the current profitability of the service.</li> <li>• Please provide an assessment of the additional space required to support this proposal and explain its purpose.</li> </ul>				
	Year 1		Year 2	Year 3
	2019/20		2020/21	2021/22
	Baseline – Annual Plan	Forecast Outturn		
No. of Patients				
Staffing				
Non-pay				
Overheads (incl. capital charges)				
SEM consultant leadership and supervision	Already funded through AHP		Already funded through AHP	To be discussed with TME as part of broader business plan for active hospital pilot
Total Expenditure				
Income				
Capital				
Contribution (£)				
Contribution (%)				
10. Has this been discussed with commissioners? What did they say?				
<ul style="list-style-type: none"> <li>- Has this gone into commissioning intentions? What was the outcome?</li> <li>- Is this a proposal that commissioners have raised with OUH?</li> <li>- Has there been a discussion with the commissioning manager to understand if potential changes to activity (e.g. increases) enable the realisation of expenditure and if this is/has been supported by the commissioners?</li> </ul>				
11. Senior Responsible Officer for delivery of proposal if agreed				
<ul style="list-style-type: none"> <li>- This should be the individual who would know the answer to questions around implementation of the proposal</li> </ul>				
12. Timescales if the proposal is approved				
<b>Action</b>		<b>Timeline</b>		
Business Planning Group sign-off				
Finance sign-off of Business Case				
Divisional approval				
TME approval				
Proposed start date				

### 13. Other Issues

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<b>Business Planning Group Feedback</b>
<b>What decision has the Business Planning Group made about this proposal (What are the next steps and proposed timelines?)</b>
<b>Is a Quality Impact Assessment required for this proposal (Y/N)?</b>
<ul style="list-style-type: none"> <li>- E.g. insource/outsourcing activity</li> <li>- E.G. If BPG don't approve, what is the quality impact</li> </ul>
<b>What resource (Estates, Finance and Planning) will support the further development of this case?</b>
<b>What is needed for this case to be supported?</b>



## APPENDIX A – OUH Strategic Themes

OUH Strategic Themes
Sustainable Compliance - To continue to deliver to the NHS constitution, national access standards and financial balance in a sustainable manner
<b>Building Capabilities</b> - To develop the organisation's ability to deliver our strategic objectives
Home Sweet Home – To redesign our services, in partnership with others, to achieve local health care integration, to deliver excellent care in the best settings
<b>Focus on Excellence</b> - To prioritise investment in services; developing world class services to deliver excellence
Go Digital – To achieve digital transformation, to support excellent care and enable care to be delivered closer to home
Master Planning - To develop long term estates planning that sets out the strategic vision for the Trust sites for the next 40 years
High Quality Costs Less - To deliver our quality priorities and ensure continuous service improvement through efficient working practices

## APPENDIX B - Consultant Appointment Checklist

Please reference PLICS to support your answer to question 9.

Question	Answer
1. Is the post new or replacement? - If new, has a Business Case been approved by Trust Management Executive?	
2. Is the appointment required to meet specialty designation standards? - If yes, please provide an explanation.	
3. Is the appointment essential to achieving a compliant on call rota? - If yes, please provide an explanation.	
4. Is the appointment a requirement to meet an agreed strategic service strategy and/or to maintain service provision and funded within the agreed baseline budget and/or generates additional income within the context of commissioner contracts. - If yes, please provide an explanation.	
5. How many consultants are currently employed in the specialty? Please detail current variance between in post and budgeted establishment.	
6. Set out the service capacity requirements in terms of activity to be delivered against constitutional standards.	
7. Provide a profile of direct clinical activity by consultant in the specialty.	
8. Provide UK and comparable international benchmark data on productivity for the specialty.	
9. Provide a consultant by consultant productivity analysis for the specialty explaining any variance between consultants.	
10. Have alternative models of service delivery been explored? - If yes, please set out the details - If no, please explain why an alternative model is not practicable.	
11. Is there an option to agree a team based delivery model to meet activity demand? - If yes, has this been explored with the specialty team? Describe how the alternative model could operate and	

whether this has Divisional Management Team support.	
12. Does the appointment deliver an enhancement to 7 day service provision? - If yes, provide details and any consequent financial impact on other services/staffing.	

## Appendix C - Proposed Consultant Job Plan

### OUTLINE JOB PLAN WEEKLY PROVISIONAL PROGRAMMED ACTIVITIES

An indicative timetable and job plan is outlined below. The final job plan for the post will be agreed with the Clinical Director upon appointment and will be subject to renegotiation at least annually.

Day	Time	Location	Work	Categorisation	No. of PAs
<b>Monday</b>					
<b>Tuesday</b>					
<b>Wednesday</b>					
<b>Thursday</b>					
<b>Friday</b>					
<b>Saturday</b>					
<b>Sunday</b>					
<b>Additional agreed activity to be worked flexibly</b>					
<b>Predictable emergency on-call work</b>					
<b>Unpredictable emergency on-call work</b>					
<b>TOTAL PAs</b>					

<b>Programmed activity</b>	<b>Number</b>
<b>Direct clinical care (including unpredictable on-call)</b>	
<b>Supporting professional activities</b>	
<b>Other NHS responsibilities</b>	
<b>External duties</b>	
<b>TOTAL PROGRAMMED ACTIVITIES</b>	

**Anticipated on-call availability supplement**

Agreed on-call rota e.g. 1 in 5:

Agreed category (delete):

On-call supplement %:

**This is an indicative job plan the actual initial job plan worked will be negotiated with the Clinical Director upon appointment and may vary depending on the candidates experience and the clinical need within the department.**

**Annual and study leave arrangements must be co-ordinated within the specialty to ensure there is an acceptable level of consultant cover.**