Oxford University Hospitals NHS
NHS Trust

Trust Board Meeting: Wednesday 11 September 2013

TB2013.109

Title	**Business Case for the relocation and development of Cardiology Outpatient Services and an Echocardiographic Unit within the Oxford Heart Centre**

Status	For approval
History	Business case for the development of an Echocardiographic Unit within the Oxford Heart Centre – approved by Strategic Planning Committee 22/6/11 Approved by CTV Divisional Executive meeting 3/6/13 Approved by TME 8/8/13

Board Lead	Paul Brennan, Director of Clinical Services			
Key purpose	Strategy	Assurance	Policy	**Performance**

Executive Summary

1. This is a review of the Cardiac Medicine, Cardiothoracic Surgery and University of Oxford Echocardiographic Unit, on Level 2 within the Oxford Heart Centre Business case, approved in June 2011. This revised business case was approved by the Trust Management Executive (TME) in August 2013. As the capital costs are £1.54m the business cases requires Trust Board approval.

2. The business case will support improvements in the following:

- Re-align and increase capacity to meet the current and future demand for cardiology outpatients clinics and echocardiography;
- Ensure the Directorate is able to deliver against the 6 week national access target;
- Provide quality facilities and services that meet national requirements and those of patients and staff;
- Utilisation of expensive estate;

3. The financial bottom line of this proposal is as follows :

- Total incremental revenue expenditure of £268k (including contribution to overheads) in year 1 (2013/14) increasing by a further £336k in year 2 to a total of £604k (2014/15).
- Capital expenditure of £1,540k (in year 1 only) of which £681k is from charitable funds.
- The increase in income as a result of this investment is £312k in year 1 and £302k in year 2.
- The overall revenue surplus is £888k in year 1 and £854k in year 2

4. The implications of not proceeding with this development are that the service will not be able to :

- Exploit opportunities to further expand service provision
- Deliver timely access targets which meet national and clinical requirements
- The service will continue to be delivered from sub-optimal facilities which do not meet minimum standards e.g. privacy and dignity

5. Recommendation

It is recommended that the Trust Board approve Option 3 which allows the Division to invest the resources required to meet the demand for outpatient clinic and echocardiography appointments, within national access targets and in doing so provide a quality service within improved facilities.

Business Case for the relocation and development of Cardiology Outpatient Services and an Echocardiographic Unit within the Oxford Heart Centre

Trust Management Executive Reference	**TME2013.102**
Appendices	Appendix A – Financial Pro Forma Appendix B – Equality Analysis Form Appendix C – Proposed Floor Plan
Background papers	Development of an Echocardiographic Unit within the Oxford Heart Centre - PC2010.009
Action/decision required from TME	Approval to : • Additional revenue investment over and above 12/13 baseline budget of £604k FYE(including contribution to overheads) • Capital expenditure of £1,540k (year 1 only) of which £540k is charitably funded • Appointment of 10.0 WTE nursing and scientific staff • Appointment of 4.7 WTE Administrative staff
Strategic Objectives that the case will help deliver	SO1 – Delivering Compassionate Excellence This development places the patient at the centre of the service, improving access to the service, improving the patient and staff experience. Patients and staff are identified stakeholders within the project team to refurbish the area and review the patient pathway. S02 – A well governed and adaptable organisation. To provide high quality, efficient and innovative care in line with national and local access targets To seek accreditation with the British Society of Echocardiography (BSE). For the Cardiology Directorate and

	Cardiothoracic and Vascular Division (CTV) to be directly accountable for the whole patient pathway through direct line management of the whole service. This development will support good clinical governance through greater consultant review of patients due to proximity of services in one purpose built unit that facilitates the support of team members in the delivery of outpatient care. SO3 – Delivering better value healthcare To provide more efficient use of current resources (equipment and staff) in the outpatient and echocardiography service by consolidation into a single area (currently split across three separate areas). The improved larger space will expedite patient care through improved communication and streamlining of the patient pathway, increasing service delivery and access to the service. Additional consulting rooms will improve throughput, promote patient privacy and aid observation of patients whilst in the area. It is critical to achieve this if a maximum 4 week wait for diagnostics is to be met. The space currently available to outpatients and echocardiography is cramped and inadequate. S04 – Delivering integrated local healthcare This development will allow the adoption of new ways of working that ensure the most appropriate support to patients requiring outpatient care. This will be achieved by working in partnership with local GP's and Oxfordshire Clinical Commissioning Groups to appropriately demand manage outpatient services through delivery of services in alternate ways. SO- 5 Excellent secondary and specialist care through sustainable clinical networks The OHC plans to be more inclusive of other agencies such as CCGs, patient groups, commissioners, DGHs, referring clinicians and the commercial sector. Bringing the outpatient and echocardiographic service together

	provides an opportunity to improve technological links across the network improving communication and reaching a wider community than is current. A good example of this is the liaison with the GPs with a special interest who visit every month to review cases. This development will allow training programmes across the imaging network. SO-6 Delivering the benefits of research and innovation to patients The close proximity of the whole outpatient and echocardiography department will promote opportunities for teaching, research and close collaboration with the University. To develop the Trust's role as an academic health science centre of international standing working in partnership with the University of Oxford and the Nuffield Orthopaedic Centre and other partner organisations.
Proposed date that revenue spend will begin:	November 2013
Proposed date that capital spend will begin:	November 2013
Conclusion of Equality Analysis	This development will improve access for all patients both outpatient and inpatient requiring cardiological assessment and diagnostic investigation in support of their diagnosis and on-going management.
Review Date	June 2014
Acronyms and abbreviations used	CTV – Cardiothoracic and Vascular Division CTS – Cardiothoracic Surgery OUH – Oxford Universities Hospitals NHS Trust OCCG _ Oxfordshire Clinical Commissioning Group TTE- Transthoracic echo TOE – Transoesophageal echo

	DSE – Dobutamine Stress Echo BSE _ British society of Echocardiography NICE – National Institute for Clinical Excellence PAC – Pre-admission Clinic CIA – Cardiac Investigations Annex WTE - Whole Time Equivalent
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Lead Finance Manager	Doreen Carter, Senior Business Partner, Cardiothoracic and Vascular Division

Strategic Context and Case for Change

Background

1. A business case was developed and approved by the Trust in 2011 which proposed the establishment of a combined Cardiac Medicine, Cardiothoracic Surgery and University of Oxford Echocardiographic Unit, on Level 2 within the Oxford Heart Centre. The drivers for this proposal were to :

    1.1. Rationalise the provision of this service, bringing together echocardiographic facilities, equipment and expertise from three geographically disparate areas (Outpatients Department Level 2, Cardiothoracic Investigations Annexe, Level 1 and Cardiothoracic Surgical Echocardiography, Level 1) to a single purpose built area on Level 2.

    1.2. Improve the efficiency of service delivery, with improved access for outpatients and inpatients.

    1.3. Improve the patient and staff experience.

    1.4. Improve the quality of imaging provision and reporting in line with BSE Standards.

    A critical review of the original proposal, prompted by the recognition that further improvements in access, quality of care and the patient experience could be achieved has been undertaken. This has extended the scope of this development to include changes to the Cardiology Outpatient provision and inpatient access.

2. It is proposed that :

    2.1. The establishment of an Echocardiographic Unit within the Oxford Heart Centre should proceed.

    2.2. This unit should be collocated with Cardiology Outpatients

    2.3. To establish a 7 day cardiac physiology service for inpatient ward based echocardiography should be established on the John Radcliffe site

3. The establishment of a Cardiology Outpatient and Echocardiographic Unit on level 2 of the Heart Centre would enable the service to be delivered from appropriately sized and configured facilities. This would in turn enable the service to optimise throughput and deliver the service in an environment which optimises the patient experience.

Current Service Provision

4. **Echocardiography Provision**

    4.1. Echocardiography is a crucial diagnostic tool used across the Oxford University Hospitals NHS Trust to improve outpatient and inpatient diagnosis and care in all departments. The demand for this service has increased with the pressure to reduce inpatient waiting times and meet the elective patient 18 week target. This places greater pressure on the service and compromises the delivery of component waits within the 18 week pathway. Forty per cent of the 15,000 scans/investigations undertaken per annum are for areas within the Trust outside of the Cardiac Directorate e.g. General medicine, renal transplant, general surgery and cancer services. The increase in demand can be met with an improvement in the space allocated to echocardiographic imaging. The space available currently is split over two floors and three departments. These are :

4.1.1. Outpatients Department Level 2 – Supports outpatient attendees and current inpatients requiring trans thoracic echocardiography

4.1.2. Cardiothoracic Investigations Annexe, Level 1 – Supports outpatient attendees and current inpatients requiring advanced echocardiography such as trans oesophageal echocardiography and stress echo

4.1.3. Cardiothoracic Surgical Echocardiography, Level 1 – Supports pre and post-operative cardiac surgery patients

4.2. This has led to a disjointed and inefficient service provided in an environment which is inconsistent with providing an optimal patient experience e.g. inadequate space and changing facilities.

5. The increasing demand for echocardiography is shown clearly in tables 1 and 2 below :

Table 1 Trans Thoracic Echo Growth 2005 – 2012

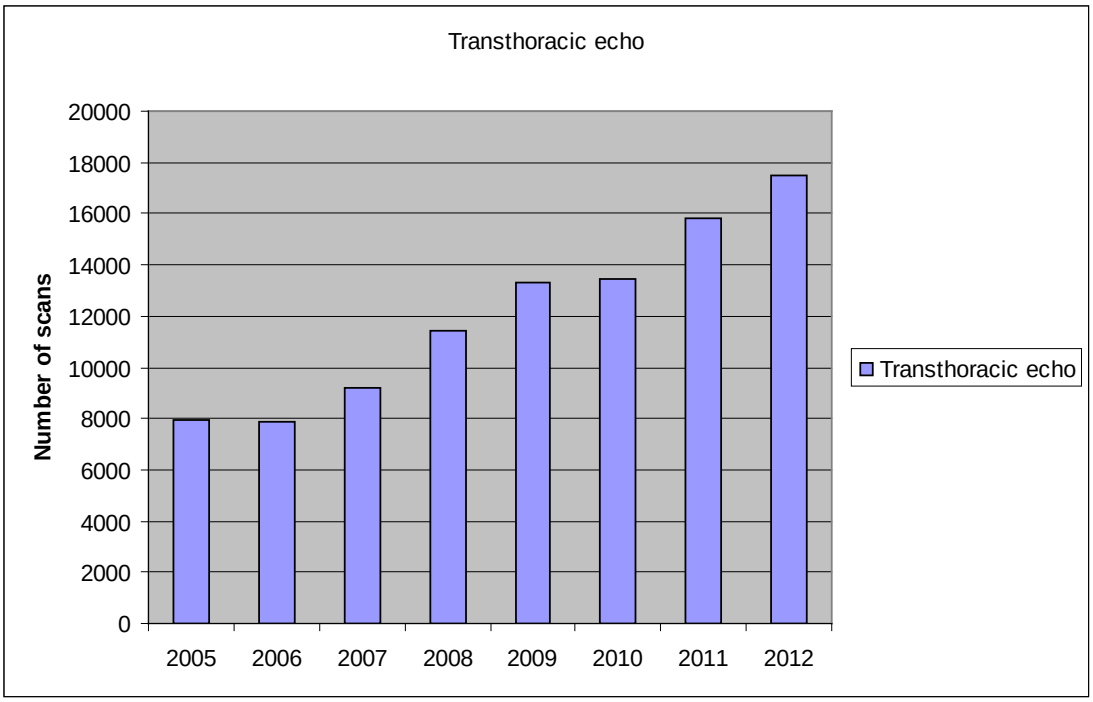
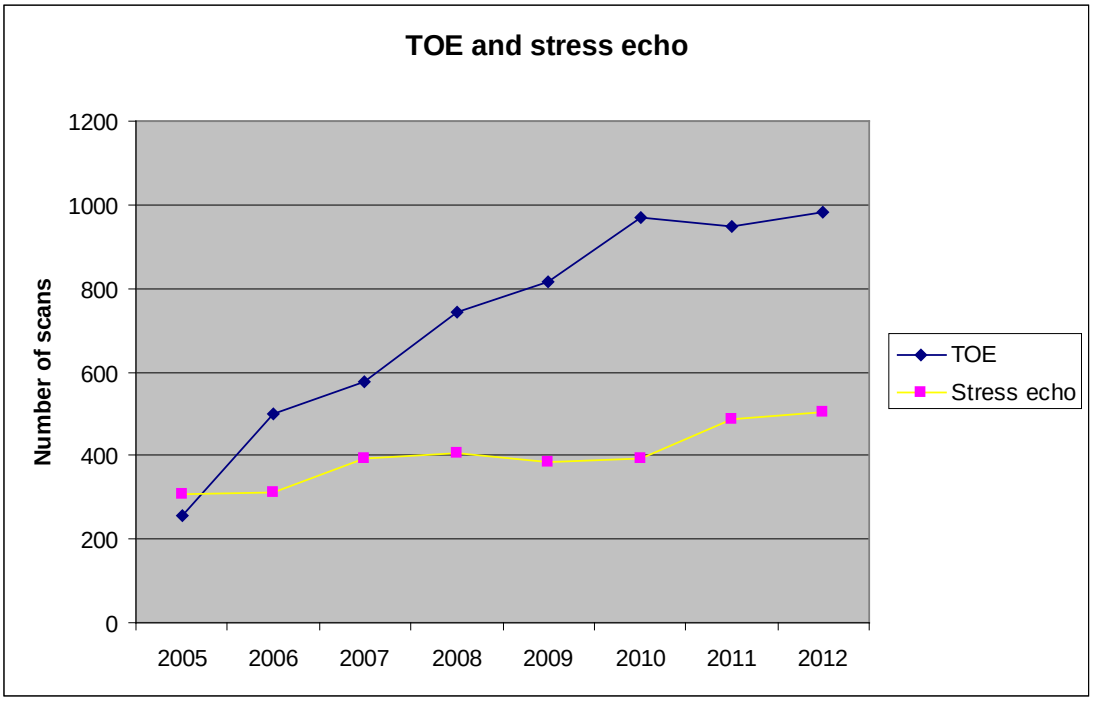


Table 2 Transoesophageal and Stress Echocardiography Growth 2005-2012



6. This activity necessitates a day case stay and attracts a tariff of £361 in 13/14 per investigation and predicted income of £183k for 13/14

7. **Cardiology Outpatients**

7.1. The current cardiology clinic schedule in Blue Outpatients is determined by room availability. Table 3 shows a typical weekly layout of rooms used by cardiology (total rooms used 65, 28% of total Blue outpatient capacity).

Table 3 - Cardiology Outpatient Clinic Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	5	8	5	10	16
PM	8	2	5	5	1

7.2. This results in inconsistent provision/access across any given week and there is insufficient flexibility to move clinics within the week to provide a more balanced schedule. Also this does not allow for a manageable match to the associated diagnostic resources. The Cardiac Investigations Annex (CIA) and consultant offices accommodate other clinics due to the lack of space within Blue Outpatients. In total this equates to an additional 20 clinic rooms per week

7.3. Current echocardiography services are able to support up to 17 requests for echocardiography from clinic in a given AM or PM session. The current schedule therefore leads to an inequity in diagnostic imaging for patients based upon which clinic they attend. This is not sustainable and leads to a transfer of echocardiography requests to booked outpatient appointments (already at six

weeks component wait) or a sub-optimal service in clinic where patients do not receive the required diagnostic imaging.

7.4. Clinic templates vary in the numbers of patients seen and the timing of appointments. This creates variable patient flow and leads to backlogs within clinic and the diagnostic support services. Both formal and informal complaints reflect the poor patient and staff experience this creates. Alignment of appointments equally across the service will provide an opportunity to provide linked appointments for diagnostic services as part of the 'one stop' service cardiology strives to provide.

7.5. Outpatient clinic waits are out to ten weeks with 77.6% of patients unable to book through Choose and Book and the service recognises the need to address this. Recent conversations with Oxfordshire Clinical Commissioning Group raised concerns about this current breach of targets and how the service planned to bring this back in line with contract. With the support of Newton Clinic templates are currently under review and IMAS modelling will be undertaken to support potential interim solutions.

7.6. The patient and staff experience within the current Cardiology outpatient service is below reasonable expectation. The average wait time within these clinics is between two and three hours with constant overruns, queuing and dissatisfied patients and staff. The increasing pressures on the current clinics indicate an imbalance between demand and current capacity for both clinic facilities, human resources and the associated support services, namely in cardiac physiology. Historically, outpatient clinic capacity has grown to match changes in demand and new consultant job plans have had to be aligned to room availability rather than patient and service need. This has placed increasing pressure on clinic capacity with increasing wait times for all patients. In particular for associated tests such as echocardiography where clinic attendees compete with booked outpatient and inpatients needs, thereby creating an inefficient service which is below reasonable expectation for patients and staff.

7.7. The tariff for a new Cardiology outpatient in 12/13 was £215 generating an income of £933k per annum. In 13/14 this tariff has been unbundled and the outpatient consultation will be charged at £171 and associated diagnostic tests, such as echocardiography charged separately at £83. Therefore it can be anticipated that an increase in income will be realised.

Risks associated with current situation

Clinical

8. Current outpatient component wait are currently at ten weeks with limited options to bring this down in line with national and local access targets.

9. Inconsistent access to the echocardiography service from clinic results in the transfer of echocardiography requests to booked outpatient appointments (already at six weeks component wait) or a sub-optimal service in clinic where patients do not receive the required diagnostic imaging. Neither approach is clinically optimal.

10. The cardiac physiology service commenced a five day ward based inpatient service in March 2013 to provide a more patient focus to the pathway of care and increase the resources in the blue outpatient area to support clinic patients and booked outpatients This has been well received. However the bottleneck created by referrals over the weekend has a major impact on the week and results in delays in patient's length of stay. A seven day service is required to improve the quality of service to our

inpatients and ensure all patients are seen within 24 hours and potentially reduce their length of stay. This would be the clinically optimal approach.

Operational

11. The inability to provide the required level of echocardiography to outpatient clinics leads to increased staff tensions daily and reduction in morale through provision of this inefficient service.

12. The current Echocardiographic Service is currently delivered from three geographically disparate locations, which are individually and in combination unable to meet the demands for their service.

    12.1. None of the current echocardiography rooms on Level two adjacent to blue outpatients meet the requirements under infection control, all have no hand washing facilities and there is no access to natural light for the staff working within it. The rooms are always hot and stuffy due to the heat that the echo equipment generates. There is no space for changing and the room is so small that there is only access on one side of the patient couch. The provision of privacy and dignity for the patients is challenging in this environment. The physical configuration of these facilities results in a sub-optimal experience for patients and staff.

    12.2. One of the echocardiography rooms is off a corridor immediately outside the consultant offices with no space for a waiting room. Outpatients line up along the corridor while waiting for their scan. There is no natural light and the corridor is just 3m wide. This area has not been developed since the hospital was built even though the workload of the Cardiology Department has grown exponentially. A number of complaints have been received about the inadequate facilities from patients

    12.3. Patients undergo advanced echocardiography in the Cardiac Investigations Annex which consists of a 'PortaCabin' temporary building without assisted ventilation. The area is cramped and hot due to the poor thermoregulation of the temporary building and the heat that the equipment gives out. There are no changing room facilities for this group of patients, mainly consisting of patients on the Breast cancer pathway. There is no nursing cover in this area to support the service

    12.4. More advanced echocardiography (e.g. trans oesophageal echocardiography (TOE) and stress echo (DSE)) is undertaken on Level One of the OHC in the anaesthetic room. The room is not set out to provide this service and removes the opportunity for it to be used in supporting general anaesthetic cases being undertaken in the cardiac angiography suite, reducing efficiency in turnaround of anaesthetic cases. There is scope within the recovery facility of L-1 of the OHC to provide a dedicated TOE facility and allow the anaesthetic room to be returned to its original use facilitating turnaround of general anaesthetic cases currently blocking lab facilities.

    12.5. The volume of cardiothoracic (CTS) echocardiography activity has doubled over five years and access to this service is now constrained by space. A total of 15 m^2 is currently available with no air conditioning or changing facilities for patients. The need to provide echocardiography imaging for all patients pre and post cardiac surgery is widely recognised and supported, but places a strain on limited resources.

13. Both formal and informal complaints reflect the poor patient and staff experience this created by the poor patient flow and the resulting backlog within clinic and the diagnostic support services. Alignment of appointments equally across the service will provide an opportunity to provide linked appointments for diagnostic services as part of the 'one stop' service cardiology strives to provide.

14. Currently all outpatient staff are managed through the Operations and Service Improvement Directorate. This reduces the opportunities to address new ways of working to support an efficient service. Recent issues with clinic preparation highlight the difficulties in Cardiology's reliance on this service. It would be appropriate for Cardiology to look at options to manage both the nursing support and clinic preparation support to their clinics.

15. The Cardiology Outpatient clinic and Echocardiographic Unit would be directly managed by Cardiology in collaboration with lead clinicians, including Medical and Cardiac Physiology leads in Imaging. The centralised management planned for a co-located service would undertake the following significantly reducing risk and inefficiency:

    15.1. Opportunity to align clinic activity and clinic templates across the week (including a review of options for weekend working) to remove the current peaks and troughs and provide supporting standard operating procedures to ensure consistency and efficacy across the whole service.

    15.2. The opportunity to create a booking process that combines the need for a medical consultation with diagnostic tests on the day i.e. echocardiogram and ECG

    15.3. Booking of all inpatient and outpatient transactions onto Cerner, meeting elective access standards and reducing the risk of breach of those standards.

    15.4. The coding process will be improved with coding undertaken by clinicians in real time.

    15.5. BSE reporting standards would be met in all cases including scans undertaken out of hours and therefore improving the position to achieve BSE accreditation.

    15.6. Improved reporting, including overseeing of scans by echocardiography consultants, would lead to improved clinical governance, audit and performance review for sonographers both medical and non-medical. This would help the department to achieve BSE accreditation which is now a requirement.

    15.7. Multiple scanning rooms will increase access to imaging as one sonogapher can cover more than one room. No time is wasted between cases waiting for patients to change. Reporting can take place in real time while patients are prepared. This is an effective model used in most European centres.

    Increase the inpatient ward based echocardiography service to cover 7 days a week on the John Radcliffe site and therefore reduce length of stay

Financial

16. Current inefficiencies in the system do not allow for growth and therefore an increase in income. There is the potential for loss of income through patient and GP dissatisfaction with the service, and potential to choose other providers.

17. The additional capital funding requirement is £1.54m. Funding from 13/14 capital programme of £1m with the remaining £540K already raised form charitable funding.

18. The following objectives have been identified for this case

18.1. Deliver improved efficiency with increased throughput and streamlined administrative processes.

18.2. Improve the quality of care for patients.

18.3. Optimise use of space.

18.4. Achieve BSE accreditation with the delivery of improved imaging standards.

18.5. Meet national and local access targets.

18.6. Ensures that the service provided is in line with that of an academic health science centre and centre of excellence for teaching, training and research.

Benefit Criteria

19. Utilisation of expensive assets within the existing estate

20. Opportunity to align linked services (clinics and supporting echocardiography) across the week through a review of the current schedule that evens out capacity to meet the demand for the service

21. Provide a patient focussed service through a bespoke 'one stop' shop model that fosters **improving quality, safety and the patient experience year on year**

22. Opportunity to refine the pathway from referral to discharge from outpatients to improve efficiency.

23. Brings all aspects of the delivery of cardiology outpatient services under the direct management of CTV Division.

24. Will bring the current disparate echocardiography service together into two defined areas allowing improved team working, fostering efficiency, teaching and support.

25. Improves facilities for both patients and staff

26. Provide an inpatient echocardiography ward based service over 365 days a year

27. Provides the Trust with an increase in capacity within Blue outpatients (28% of total clinical rooms).

Options

28. Three options have been identified :

28.1. Option 1 – Refurbish existing areas to reduce risk – The option to do nothing does not exist as the risks to patients are significant in relation to a lack of privacy and mixing of sexes and a pathway delivered across three separate areas.

28.2. Option 2 – Utilise level 2 reconfigured space within the cardiac block, CIA and L-1 of the OHC to develop the outpatient and echocardiography unit including the transfer of pay budget associated with the current cost apportionment for cardiology (28%)

28.3. Option 3 - Utilise level 2 reconfigured space within the cardiac block CIA and L-1 of the OHC to develop the outpatient and echocardiography unit including the addition of pay budget to provide 14.7 WTE staff to support the running day to day of the service.

Option Appraisal using Benefit Criteria

	Option 1 – Refurbish existing areas to reduce risk 1 – 5 weighting (poor – excellent)	**Option 2 - Utilise level 2 reconfigured space and transfer of pay budget 1 – 5 weighting (poor – excellent)**	**Option 3 – Utilise level 2 reconfigured space with addition of 4.7 WTE A&C 1 – 5 weighting (poor – excellent)**
Description	Current environment is sub optimal, of poor quality with a lack of waiting areas and privacy. The environment is demoralising to staff and patients as opposed to being inspiring. The areas will remain split creating a disparate relatively inefficient service though lack of coordination across floors	A state of the art centre is proposed to service the total current 14,515 attendances per annum. This includes outpatient activity in a purpose built suite built to a specification that optimises use of the space to enhance the whole patient experience and includes a waiting area, room sizes that meet BSE accreditation and teaching rooms. The transfer of pay budget will reduce the overall cost of the scheme	A state of the art centre is proposed to service the total current 14,515 attendances per annum. This includes outpatient activity in a purpose built suite built to a specification that optimises use of the space to enhance the whole patient experience and includes a waiting area, room sizes that meet BSE accreditation and teaching rooms The addition of pay cost to support 14.7 WTE will allow the service to define the way services are delivered and maintain current pay resources to the existing Blue Outpatient services for

			future expansion within other divisions
Strategic fit	The OHC is a defining service for the Trust and the outpatient's service is its front door. The current facilities provide a below reasonable experience for patient and staff. Lack of investment in this service will lead to a loss of reputation as a defining service with no opportunity to grow and meet the demands of expanding services.	Provides a patient focused service fitting with the Trust vision for delivery of compassionate excellence improving the quality, safety and patient experience year on year	Provides a patient focused service fitting with the Trust vision for delivery of compassionate excellence improving the quality, safety and patient experience year on year
Benefits	Does not meet the benefit criteria 19-27	Meets all of the benefit criteria 19-27	Meets all of the benefit criteria 19-27
Dis-benefits/risks	Lack of investment will damage the reputation of the OHC and diminish the OHC's standing in the cardiology community.	Requires capital investment. Require revenue investment that can be reduced by the transfer of pay budget from existing corporate services (total Nursing and A&C = £153k) within Blue outpatients. There is a demand on Blue Outpatients department for clinic room space and associated services and therefore it is likely that the cardiac activity would be replaced by other outpatient activity within the Trust especially in light of the OP Re-Profiling Project to meet a target of 6 weeks for routine outpatient	Requires capital and revenue investment

		appointments.	
Revenue costs	£100k	£451k FYE plus £153k from corporate outpatients. Total £604k FYE	£604k FYE.
Building costs		£1,480k refurbishment of current area	£1,480k refurbishment of current area
Equipment cost		£60k for echo machine	£60k for echo machine
Cost of space	N/A	N/A	N/A
Other (please state)	None	Cost of consumables offset covered by agreed tariff.	Cost of consumables offset covered by agreed tariff.
Conclusion	**Rating = 1** This option meets none of the benefit criteria.	**Rating = 4** Meets all benefit criteria with a cost effective solution that generates a financial net surplus.	**Rating = 5** Meets all benefit criteria with a cost effective solution that generates a financial net surplus.

Recommended option and how it meets the case for change

29. Option 3 - The preferred option is to consolidate all of the Cardiology and echocardiography facilities, equipment and expertise into two areas, one on level 2 which is currently vacant and one on Level -1 of the Cardiac Block. The refurbishment of the areas will cost:

    29.1. Total capital £1,540k

    29.2. Total revenue £604k FYE

30. There is a demand on Blue Outpatients department for clinic room space and associated services and therefore it is likely that the cardiac activity would be replaced by other outpatient activity within the Trust especially in light of the Outpatient Re-Profiling Project to meet a target of 6 weeks for routine outpatient appointments. Therefore the removal of £153k from pay would have an adverse impact on existing outpatient provision to other Divisions.

31. This option requires revenue investment of £268k in year 1 (£604k FYE) to support the staffing requirements to continue to provide the current level of service and provide an enhanced quality of service, meeting the pressures within the outpatient clinic appointment to ensure the services is able to meet the national access target of six weeks and supporting the wider Trust requirements for weekend working. Improving the environment for outpatients and echocardiographic investigations is of paramount importance. The current situation is sub optimal and inefficient as the department is split across three areas. This development brings together the three disparate areas into two larger areas based on level 2 and L-1, within the OHC. The unit would be purpose built with adjacent clinic rooms, a waiting room and

echocardiography rooms plus a separate TOE suite for those cases having inpatient/outpatient procedures requiring recovery facilities.

32. The improved environment will increase access to outpatient clinics and echocardiography for the whole OUH Trust, tertiary and private activity. Consolidating the service and improving the environment will make the service more efficient e.g. a consultant covering adjacent rooms can supervise twice the number of scans at any given time.

33. The service would provide a seven day week inpatient ward based echo service on the John Radcliffe site reducing the current inpatient wait for scanning to a same day and expedite discharge.

34. Co locating echo services would no longer require expensive scanners to be moved from area to area. This would reduce the risks to the staff that have to move them and reduce the risk of damage to this highly sophisticated equipment.

35. The quality of care is improved by this development through the provision of space for collaborative working amongst the medical teams to provide MDT assessment of cases, peer review to maintain high standards of image quality and facilities for teaching and research enhancing the OHC's reputation for its education of staff.

36. Centralised management of the service will increase efficiency through improved scheduling. Coding will be done at the reception area for in and out patients reducing the risk of not picking up these patient episodes.

37. This option provides the space to deliver the service strategy to improve the quality of imaging provision and reporting in line with BSE standards.

38. This option requires the development of L2 of the cardiac block first. This will ensure cardiology services delivered within the CIA can be relocated to the new outpatient and echocardiography unit and Blue Outpatients. Surgical PAC should be aligned with cardiac surgical clinics in blue outpatients to ensure an efficient and effective pathway for the patient

Financial Analysis of Preferred

SUMMARY		Baseline/ budget	Proposal					Baseline/ budget	Proposal				
		2013/14	2013/14	2014/15	2015/16	2016/17	2017/18	2013/14	2013/14	2014/15	2015/16	2016/17	2017/18
		WTE	WTE	WTE	WTE	WTE	£000s	£000s	£000s	£000s	£000s	£000s	£000s
A. Direct revenue costs													
Staff													
Consultants		2.00	2.00	2.00	2.00	2.00	2.00	260	260	260	260	260	260
Junior Medical		4.00	4.00	4.00	4.00	4.00	4.00	356	356	356	356	356	356
Nursing		0.00	1.00	3.00	3.00	3.00	3.00	0	35	104	104	104	104
Scientific & Therapeutic		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Other Clinical		7.00	9.83	14.00	14.00	14.00	14.00	252	355	505	505	505	505
Non Clinical		0.00	1.57	4.70	4.70	4.70	4.70	0	39	116	116	116	116
Total Staff		**13.00**	**18.40**	**27.70**	**27.70**	**27.70**	**27.70**	**868**	**1,044**	**1,341**	**1,341**	**1,341**	**1,341**
Non-Staff								49	49	62	65	65	65
Subtotal Direct costs	A	**13.00**	**18.40**	**27.70**	**27.70**	**27.70**	**27.70**	**917**	**1,093**	**1,403**	**1,406**	**1,406**	**1,406**
B. Indirect revenue costs													
Staff													
Radiological Sciences		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Pharmacy		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Therapies		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Laboratory Medicine		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Theatres/Anaesthetics		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Critical Care		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Others (Current outpatient staff)		0.00	0.00	0.00	0.00	0.00	0.00	153	0	0	0	0	0
Total Staff		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**153**	**0**	**0**	**0**	**0**	**0**
Non Staff								0	18	0	0	0	0
Subtotal Indirect costs	B	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**153**	**18**	**0**	**0**	**0**	**0**
Capital Charges & Depreciation	C							0	60	60	59	59	59
Contribution to Corporate Overheads @ 15%	D							160	176	219	220	220	220
Total REVENUE COST	E							1,230	1,346	1,682	1,685	1,685	1,685
Income													
Total PCT								1,922	2,234	2,536	2,536	2,536	2,536
Private Patient								0	0	0	0	0	0
R&D								0	0	0	0	0	0
Other non NHS clinical (capitalised suprlus 11/12 & 12/13)													
Charitable Funds													
Other (Capital required)								0	0	0	0	0	0
Total Revenue Income	F							**1,922**	**2,234**	**2,536**	**2,536**	**2,536**	**2,536**
REVENUE SURPLUS (DEFICIT)	G							**692**	**888**	**854**	**851**	**851**	**851**
Contribution %age								36%	40%	34%	34%	34%	34%

Note: Baseline staff costs are restated to include the staff costs currently within Blue outpatients that will not be transferred

Revenue Costs

39. The total expenditure cost is £1,346k in year 1. The total income is £2,234k in year 1, making a contribution of £888k to the Trust.

40. The revenue costs of £604k full year reflects the need for additional nursing, administrative and cardiac physiology staff to provide support to the outpatient and echocardiography development on Level 2 in addition to the increase in the ward based echocardiography service to inpatients on the John Radcliffe site at weekends. The alternative is to remove the current pay budget (£153k, 4 WTE) equal to the cardiology contribution to the Blue outpatient service to reduce the overall revenue cost of this scheme. Supporting the additional revenue will allow flexibility within the corporate team funding to support developments within Blue outpatients.

41. Investment through this business case will be used to increase the overall pool of substantive staff:

    41.1. The 3.0 WTE nursing staff will provide support to the patient pathway through this outpatient facility. This will allow the team to deliver all the clinical requirements of these patients, such as phlebotomy and support the flow through the service to ensure all patients are seen in a timely manner.

    41.2. The 7.0 WTE Cardiac Physiology staff will facilitate the delivery of echocardiography through the six dedicated rooms and support a weekend service to inpatients across the John Radcliffe site. This increase in cardiac physiology staff is required to manage a doubling of current echocardiography facilities required to meet current and future demand and ensure a ward based service on the John Radcliffe site is delivered across 365 days

    41.3. The 4.7 WTE administrative staff will facilitate clinic preparation and reception duties allow for cross cover of roles ensuring timely coding of all patient episodes.

42. The increased revenue costs are associated with the projected increased throughput of the consolidated department with the opportunity to provide Saturday/evening working. It is expected that the demand for timely diagnostics will increase in line with the continued pressure to meet access targets in line with the NHS Operating Framework 2011 guidance and NICE guidance.

Capital Costs

43. The capital costs of refurbishment are £1,480k. A further £60k will be required for equipment. The refurbishment costs include all of the works necessary to provide a state of the art facility which complies with the most up to date HBN regulations and ensures compliance with BSE standards. As a result of this the department would apply for BSE accreditation as soon as the refurbished department is fully functional.

Income

44. The Outpatient and echocardiogram service generates £1,922k per annum in 2012/13. In this respect both the outpatient and echocardiography service is an important income generator for the Trust despite 20% of the activity being inpatient related with the cost of the case absorbed into the inpatient tariff and not attributable to the echocardiography service.

45. The expanded unit will provide an opportunity to increase outpatient capacity by 218 new appointments and 3,209 echos. This will allow currently constrained clinics and

those housed outside the blue outpatient area to be aligned to deliver a quality service with future proofing across the cardiology service.

46. The expanded unit provides an opportunity to increase the number of scans performed per day for outpatients by 100%. The addition of resources to support the inpatient ward based service across seven days a week will reduce the length of hospital stay by expediting in patient access to scanning. Currently patients can wait up to 72 hours for an inpatient scan. This time would be reduced to same day scanning as a referral target. This in turn will generate a saving in bed days in services such as Acute and Emergency General Medicine. The additional activity is not declared as part of this scheme as a by-product as the impetus for this development is to increase efficiency and improve the standards of care for patients receiving outpatient clinic appointments and echocardiography. In addition it is anticipated that consolidation of the service will provide the opportunity for direct clinician coding in real time which has the potential to increase income as currently the complexity of cases is not reflected in the coding e.g. capturing the complex 3D echocardiography, a significant income generator. A simple echo tariff is £75 and a complex congenital 3D echo is £330. At least 5% of the total transthoracic echocardiography (TTE) is complex 3D imaging attracting the higher tariff. It easier for the service to ensure this happens with the clinical service in one area.

Contribution

47. In 12/13 the outpatient and echocardiographic service generated £1,922k per annum with a net positive contribution to Trust finances of £692k per annum (including £153k budget relating to DOSI division). In 13/14 the service is projected to deliver a contribution of £888k (excluding capital costs), £854k in year 2 and £851k in year 3.

Market Assessment (including commissioner discussions)

48. One hundred per cent of the OUH's outpatient clinics, TTE, TOE and DSE imaging are undertaken by the Oxford Heart Centre staff within the sub optimal facilities described above. The standard of imaging expected must comply with BSE standards and must extend to the high end imaging expected in a department supporting high risk cardiothoracic surgery.

49. The Outpatient and echocardiographic imaging supports tertiary referrals from all hospitals across the Cardiac Network referring patients with ischaemic heart disease and for cardiac surgery. This activity accounts for 50% of the total referrals into the OHC. There are no indications that this activity will decrease with the pressure to expedite diagnostic waiting times within the 18 week referral pathway.

Benefits Realisation

50. The table below shows the quantifiable benefits of the proposal and the plan for achieving them.

Benefit	Performance Measure	Current Value	Target Value	Target Date
Reduction in the component wait for outpatient appointment	Less than 6 weeks	10 weeks	Less than 6 weeks	March 2014

Reduction in the component wait for diagnostic imaging	Less than 6 weeks	6 weeks	Less than 6 weeks	March 2014
Reduction in the inpatient wait time for echocardiography	Less than 24 hours	72 hours	Less than 24 hours	March 2014

Management of Risks of Implementation of Proposal

Risk	Impact	Likelihood	Mitigating Action	Residual Risks	Contingency plan to address risk
Unable to raise current deficit in capital costs between £892k and revised costs of £1.54m	5	2	This project is the top priority for the department which has already demonstrated through the surplus generated over the last 2 years and charitable fund raising can be achieved even in a difficult financial climate.	1	
Additional revenue costs are not supported	5	3	The Directorate would have to undertake waiting list initiatives at additional cost and outsource or send referrals to other Trusts of diagnostic imaging both resulting in a loss of income		
Recruitment to cardiac physiology posts	4	3	The Directorate already have in	3	2

			place a priority recruitment programme with HR. This programme would continue and recruitment would start in advance of the new unit opening		

Implementation Plan

Action	Timeline
Approval of business case at Divisional Board	3/6/13
Approval by Trust Management Executive	8/8/13
Presentation to Trust Board	11/9/13
Complete Cardiology Project one- Redesign of Space (project manager Ruth Titchener/Muz Khan)	January 2014
Complete Cardiology Project two – Patient pathway (Project manager Ruth Titchener)	January 2014
Undertake organisational change with cardiac physiology staff to include weekend working	September 2013
Advertise and appoint support staff to support the inpatient ward based echocardiography service across seven days a week across outpatient echocardiography unit	September 2013
Support staff in post to support the inpatient ward based echocardiography service across seven days a week across outpatient echocardiography unit	November 2013
Advertise and appoint support staff to support outpatient echocardiography unit	September 2013
Support staff in post for outpatient echocardiography unit	December 2013
Heart Centre Campaign has 6 months to generate funding required by December 2013	December 2013
Building work begins on L2 OHC	November 2013
Building work complete on L2 OHC	February 2014
Commissioning of area on L2 OHC	February 2014
Open to patients on L2 OHC	March 2014
Building work begins on L-1 OHC	October 2013

Building work complete on L-1 OHC	November 2013
Commissioning of area on L-1 OHC	December 2013
Open to patients on L-1 OHC	January 2014
Evaluation	September 2014

When and how will the impact and intended effect be reviewed and reported on?

51. A comprehensive evaluation of the functionality of the service will be conducted by the Operational Service Manager for Cardiology in June 2014. The objectives used for evaluation are those defined in this business case.

Equality Impact Assessment

52. An equality impact assessment of this development was undertaken using the EqIA process: six step guide available on the DoH web site.

53. This development seeks to consolidate a service that improves access and the quality of care across all patients.

54. The development improves the working environment for staff and as a consequence will improve morale and pride in the service offered.

55. This project does not have the potential to be discriminatory: Access to the unit is much improved from the current position with three areas spread across different floors. This development is all on the one floor with access via the main hospital street. The development would not prohibit any staff or patients requiring wheelchair or disabled access.

56. The project makes a positive contribution to achieving equality in that the area widens access for all patient groups, expediting care and access to an expert opinion.

Conclusion

57. Despite the paucity of facilities, exceptionally poor environment as reported by patients and staff (supported by risk assessments on each area and complaints), the outpatient and echocardiographic services for Cardiology are an exemplar of technical quality associated with high productivity serving the secondary and tertiary care functions of the OUH Trust.

58. The service exists in facilities that are not fit for purpose and do not meet current standards and despite staff undertaking to minimise risk can lead to a poor patient experience.

59. Existing facilities are disparate as a result of the geography and being split across three floors of the Trust. Much needed growth in the service can be accommodated with minimal investment in additional staff by co locating the outpatient clinic and echocardiography activity in one area.

60. Funding the refurbishment through the Heart Centre Campaign and capitalised surplus is an excellent opportunity to use charitable donations to enhance the patient experience through direct care and also to make an investment in technology and research.

Recommendations

61. The Trust Board is recommended to approve :

    61.1. The capital cost of refurbishment of £1.54m, to accommodate the Cardiology Outpatient clinics and Echocardiography Unit. This is funded jointly through the Heart Centre Campaign and capitalisation of surplus made by CTV in 11/12 and 12/13.

    61.2. The additional revenue expenditure associated with the refurbished area of £604k full year effect (£268k in year 1 rising by a further £336k in year 2) and is associated with the additional activity that can be generated through the area.

Authors:

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Board Sponsor:

Paul Brennan, Director of Clinical Services

August 2013

Business Case: **Cardiology Outpatients and Echocardiograhic Unit - OHC**
EXPENDITURE **Assumes December Start**

	Baseline/budget 2013/14 WTE	Proposal 2013/14 WTE	2014/15 WTE	2015/16 WTE	2016/17 WTE	2017/18 WTE	Baseline/budget 2013/14 £000s	2013/14 £000s	2014/15 £000s	2015/16 £000s	2016/17 £000s	2017/18 £000s
A. Direct revenue costs												
Staff (specify grade & wte)												
Consultants												
Consultant	2.00	2.00	2.00	2.00	2.00	2.00	260	260	260	260	260	260
Sub total	2.00	2.00	2.00	2.00	2.00	2.00	260	260	260	260	260	260
Junior Medical												
Registrars	4.00	4.00	4.00	4.00	4.00	4.00	356	356	356	356	356	356
Sub total	4.00	4.00	4.00	4.00	4.00	4.00	356	356	356	356	356	356
Nursing												
Band 7		0.33	1.00	1.00	1.00	1.00		14	43	43	43	43
Band 6		0.33	1.00	1.00	1.00	1.00		12	36	36	36	36
Band 5		0.33	1.00	1.00	1.00	1.00		8	25	25	25	25
Sub total	0.00	1.00	3.00	3.00	3.00	3.00	0	35	104	104	104	104
Scientific & Therapeutic												
Sub total	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Other Clinical												
Band 6 Physiology	7.00	9.83	14.00	14.00	14.00	14.00	252	355	505	505	505	505
Sub total	7.00	9.83	14.00	14.00	14.00	14.00	252	355	505	505	505	505
Non Clinical												
A&C staff (Band 4)		1.57	4.70	4.70	4.70	4.70	0	39	116	116	116	116
Sub total	0.00	1.57	4.70	4.70	4.70	4.70	0	39	116	116	116	116
Total Staff	**13.00**	**18.40**	**27.70**	**27.70**	**27.70**	**27.70**	**868**	**1,044**	**1,341**	**1,341**	**1,341**	**1,341**
Non-Staff (inc VAT)												
MSSE consumables & Stationery							49	49	60	60	60	60
Equipment maintenance									2	5	5	5
Total non staff							**49**	**49**	**62**	**65**	**65**	**65**
Total Direct Revenue costs	**A**						**917**	**1,093**	**1,403**	**1,406**	**1,406**	**1,406**
B. Indirect revenue costs												
Staff (specify grade & wte)												
Radiological Sciences												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Pharmacy												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Therapies												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Laboratory Medicine												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Theatres/Anaesthetics												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Critical Care												
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
Others (Blue outpatient clinic staff)							153					
Sub total	0.0	0.0	0.0	0.0	0.0	0.0	153	0	0	0	0	0
Total Staff	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**153**	**0**	**0**	**0**	**0**	**0**
Non Staff (please insert lines and descriptions)												
IT set up costs (PCs)								9				
Xcelera workstation								9				
Others												
Total non staff							**0**	**18**	**0**	**0**	**0**	**0**
Total Indirect Revenue costs	**B**						**153**	**18**	**0**	**0**	**0**	**0**
Capital Charges & Depreciation	**C**							**60**	**60**	**59**	**59**	**59**
Contribution to Corporate Overheads @ 15%	**D**						160	176	219	220	220	220
Total REVENUE COST	**E**						**1,230**	**1,346**	**1,682**	**1,685**	**1,685**	**1,685**

Business Case: **Cardiology Outpatients and Echocardiograhic Unit - OHC**

Activity & Income

G. Activity (specify HRGs)	Baseline/ budget	Proposal				
	2013/14	2013/14	2014/15	2015/16	2016/17	2017/18
A & E attendances						
Emergency HRGs						
Subtotal emergency	0	0	0	0	0	0
Elective HRGs						
Subtotal elective	0	0	0	0	0	0
Day Case HRGs						
Subtotal daycase	0	0	0	0	0	0
Outpatient new	4,344	4,344	4,562	4,562	4,562	4,562
Outpatient follow-up	7,305	7,305	7,305	7,305	7,305	7,305
ECG clinics New/FU	2,866	9,421	12,630	12,630	12,630	12,630
Subtotal outpatient	14,515	21,070	24,497	24,497	24,497	24,497
Total Activity		21,070	24,497	24,497	24,497	24,497

H. Income						
	£000s	£000s	£000s	£000s	£000s	£000s
A & E attendances						
Emergency HRGs		0	0	0	0	0
Elective HRGs		0	0	0	0	0
Day Case HRGs						
Outpatient new	933	744	781	781	781	781
Outpatient follow-up	803	713	713	713	713	713
ECG clinics New/FU	187	777	1,042	1,042	1,042	1,042
Subtotal NHS/PCT	1,922	2,234	2,536	2,536	2,536	2,536
Private Patient						
R&D						
Other						
Total Revenue Income	1,922	2,234	2,536	2,536	2,536	2,536

Analysis of income by CCG/PCT

The following table is to indicate changes to current PCT income flows using 2012/13 activity as baseline. Changes to CCGs and how the PCTs will be allocated are unknown at current time, so same level of activity split has been assumed

2013/14

Source of Income	Activity					
		Spells				Other
	A&E	Emergency	Elective	Day case	OP- New/Fup	
Commissioner						
OXFORDSHIRE PCT	0	0	0	0	15,692	
BUCKINGHAMSHIRE PCT	0	0	0	0	1,388	
GLOUCESTERSHIRE PCT	0	0	0	0	658	
NORTHAMPTONSHIRE PCT	0	0	0	0	561	
MILTON KEYNES PCT	0	0	0	0	491	
SWINDON PCT					379	
Other	0	0	0	0	1,901	
Sub total NHS/PCT	0	0	0	0	21,070	0
Private Patient						
R&D						
Other non NHS clinical						
Charitable Funds						
Other						
Total	0	0	0	0	21,070	0

2013/14

Source of Income	Income					
		Spells				Other
	A&E	Emergency	Elective	Day case	OP- New/Fup	
	£000s	£000s	£000s	£000s	£000s	£000s
Commissioner						
OXFORDSHIRE PCT	0	0	0	0	1,648	
BUCKINGHAMSHIRE PCT	0	0	0	0	148	
GLOUCESTERSHIRE PCT	0	0	0	0	79	
NORTHAMPTONSHIRE PCT	0	0	0	0	63	
MILTON KEYNES PCT	0	0	0	0	55	
SWINDON PCT					45	
Other	0	0	0	0	196	
Sub total NHS/PCT	0	0	0	0	2,234	0
Private Patient						
R&D						
Other						
Total Revenue Income	0	0	0	0	2,234	0

Business Case: **Cardiology Outpatients and Echocardiograhic Unit - OHC**

SUMMARY

		Baseline/ budget	Proposal					Baseline/ budget	Proposal				
		2013/14	2013/14	2014/15	2015/16	2016/17	2017/18	2013/14	2013/14	2014/15	2015/16	2016/17	2017/18
		WTE	WTE	WTE	WTE	WTE	£000s	£000s	£000s	£000s	£000s	£000s	£000s
A. Direct revenue costs													
Staff													
Consultants		2.00	2.00	2.00	2.00	2.00	2.00	260	260	260	260	260	260
Junior Medical		4.00	4.00	4.00	4.00	4.00	4.00	356	356	356	356	356	356
Nursing		0.00	1.00	3.00	3.00	3.00	3.00	0	35	104	104	104	104
Scientific & Therapeutic		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Other Clinical		7.00	9.83	14.00	14.00	14.00	14.00	252	355	505	505	505	505
Non Clinical		0.00	1.57	4.70	4.70	4.70	4.70	0	39	116	116	116	116
Total Staff		**13.00**	**18.40**	**27.70**	**27.70**	**27.70**	**27.70**	**868**	**1,044**	**1,341**	**1,341**	**1,341**	**1,341**
Non-Staff								49	49	62	65	65	65
Subtotal Direct costs	**A**	**13.00**	**18.40**	**27.70**	**27.70**	**27.70**	**27.70**	**917**	**1,093**	**1,403**	**1,406**	**1,406**	**1,406**
B. Indirect revenue costs													
Staff													
Radiological Sciences		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Pharmacy		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Therapies		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Laboratory Medicine		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Theatres/Anaesthetics		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Critical Care		0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Others (Current outpatient staff)		0.00	0.00	0.00	0.00	0.00	0.00	153	0	0	0	0	0
Total Staff		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**153**	**0**	**0**	**0**	**0**	**0**
Non Staff								0	18	0	0	0	0
Subtotal Indirect costs	**B**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**153**	**18**	**0**	**0**	**0**	**0**
Capital Charges & Depreciation	**C**							**0**	**60**	**60**	**59**	**59**	**59**
Contribution to Corporate Overheads @ 15%	**D**							160	176	219	220	220	220
Total REVENUE COST	**E**							**1,230**	**1,346**	**1,682**	**1,685**	**1,685**	**1,685**
Income													
Total PCT								1,922	2,234	2,536	2,536	2,536	2,536
Private Patient								0	0	0	0	0	0
R&D								0	0	0	0	0	0
Other non NHS clinical (capitalised suprlus 11/12 & 12/13)													
Charitable Funds													
Other (Capital required)								0	0	0	0	0	0
Total Revenue Income	**F**							**1,922**	**2,234**	**2,536**	**2,536**	**2,536**	**2,536**
REVENUE SURPLUS (DEFICIT)	**G**							**692**	**888**	**854**	**851**	**851**	**851**
Contribution %age								36%	40%	34%	34%	34%	34%

Note: Baseline staff costs are restated to include the staff costs currently within Blue outpatients that will not be transferred

Business Case: **Cardiology Outpatients and Echocardiograhic Unit - OHC**

INCREMENTAL SUMMARY

		Baseline/ budget	Proposal					Baseline/ budget	Proposal				
		2013/14	2013/14	2014/15	2015/16	2016/17	2017/18	2013/14	2013/14	2014/15	2015/16	2016/17	2017/18
		WTE	WTE	WTE	WTE	WTE	WTE	£000s	£000s	£000s	£000s	£000s	£000s
A. Direct revenue costs													
Staff													
Consultants			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Junior Medical			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Nursing			1.00	2.00	0.00	0.00	0.00		35	69	0	0	0
Scientific & Therapeutic			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Other Clinical			2.83	4.17	0.00	0.00	0.00		102	150	0	0	0
Non Clinical			1.57	3.13	0.00	0.00	0.00		39	78	0	0	0
Total Staff			**5.40**	**9.30**	**0.00**	**0.00**	**0.00**		**176**	**297**	**0**	**0**	**0**
Non-Staff									0	13	3	0	0
Subtotal Direct costs	**A**		**5.40**	**9.30**	**0.00**	**0.00**	**0.00**		**176**	**310**	**3**	**0**	**0**
B. Indirect revenue costs													
Staff													
Radiological Sciences			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Pharmacy			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Therapies			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Laboratory Medicine			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Theatres/Anaesthetics			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Critical Care			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Others			0.00	0.00	0.00	0.00	0.00		0	0	0	0	0
Total Staff			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0**	**0**	**0**	**0**	**0**
Non Staff									18	-18	0	0	0
Subtotal Indirect costs	**B**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**18**	**-18**	**0**	**0**	**0**
Capital Charges & Depreciation	**C**								**60**	**(0)**	**(0)**	**(0)**	**(0)**
Contribution to Corporate Overheads @ 15%	**D**								15	44	0	(0)	(0)
Total REVENUE COST	**E**								**268**	**336**	**3**	**(0)**	**(0)**
Income													
Total PCT									312	302	0	0	0
Private Patient									0	0	0	0	0
R&D									0	0	0	0	0
Other non NHS clinical									0	0	0	0	0
Charitable Funds									0	0	0	0	0
Other (Capital Required)									0	0	0	0	0
Total Revenue Income	**F**								**312**	**302**	**0**	**0**	**0**
SURPLUS (DEFICIT)									**43**	**-34**	**-3**	**0**	**0**

Excludes blue outpatient staff costs in incremental summary; as these staff will remain when the clinics are relocated