REPORT FOR THE OXFORDHSIRE HEALTH OVERVIEW AND SCRUTINY COMMITTEE 04 APRIL 2019

Provision of PET-CT services

SUMMARY

PET-CT is a specialist imaging service. It is predominantly used in the staging and management of cancer, however, use in other areas is expanding. In England, PET-CT services are provided on a network basis.

Following a public procurement to select a provider of PET-CT scanning services for the Thames Valley area, NHS England has appointed InHealth Ltd as the Preferred Bidder. InHealth was selected as the Preferred Bidder because its tender response achieved a higher evaluation score against both the technical (service quality and patient access) and financial evaluation criteria included within the procurement.

Under InHealth's tender proposals for the Thames Valley, PET-CT will be delivered from a network of three new scanning locations. Each of these locations is based within an existing healthcare facility and situated within large population conurbations across the Thames Valley area, namely; Oxford, Milton Keynes and Swindon.

The proposals would have meant a change of service location in Oxford with the service being based at the GenesisCare facility in Littlemore, which is approximately four miles by road from the current scanning location at the Churchill Hospital site. However, InHealth's tender response also expressed a commitment to work collaboratively with Oxford University Hospitals NHS Foundation Trust (OUH) which would enable the current Churchill Hospital site to be retained. This was fully supported by NHS England, which does not want to remove access to PET-CT from the Churchill site.

The outcome of the procurement was communicated to both InHealth and OUH on 26 July 2018. The subsequent delay in implementation has allowed all parties to reach an in-principle agreement to work collaboratively. This means that OUH, working with InHealth, would continue to provide a service in Oxford from the Churchill site alongside new locations in Swindon and Milton Keynes. NHS England is committed to this course of action and aims to secure formal agreements with both parties during the course of April - May 2019.

NHS England recognises that OUH have expressed some concerns about the future service provision for Lot 4. These are dealt with in the body of the report. Importantly, all parties have agreed to develop the partnership based on four key service principles; with the prime focus being on the patient perspective, both access and experience. All parties believe that this approach will provide a path to resolve any residual issues and will help to clarify any remaining misconceptions about the provision of the service. These matters are set out within the body of the report.

It is NHS England's assessment that the in-principle proposals represent an improvement in access for people resident in Swindon and Milton Keynes and no change to service provision in Oxford. As such, it is considered that a moderate period (6 weeks) of public engagement across the whole geography of the lot would provide the opportunity to brief all stakeholders on the service improvements planned and secure valuable feedback about the proposed change to assist NHS England in the decision-making process. As part of the public engagement process, NHS England intends to publish an analysis of the impact on travel times, a summary of which is provided within the body of the report. In view of the District Council elections and taking into account Cabinet Office guidance, public engagement will not commence prior to 02 May 2019.

NHS England would welcome the advice of Oxfordshire's joint Health Overview and Scrutiny Committee (HOSC) as to whether the public engagement activities (as set out in Appendix 4) will now fully discharge our statutory duties relating to public involvement.

BACKGROUND

Clinical Service

PET-CT is a specialist diagnostic imaging service that is predominantly used in the staging and management of cancer. However, the modality is also used in a growing number of non-oncology indications, particularly neurosciences and infectious diseases. As with other diagnostic imaging services, PET-CT scans are predominantly delivered on an outpatient basis and form a discrete component of the clinical pathway. PET-CT scans are only accessible through secondary care referral.

PET-CT combines both a computed tomography (CT) scan with a positron emission tomography (PET) scan to provide highly detailed three-dimensional images of the inside of the body. The scanning process involves the injection of a mildly radioactive isotope (sometimes referred to as a 'tracer') into the body about an hour prior to the scan taking place. The tracer is detected by the PET-CT scanner, as it collects in different parts of the body. By analysing the areas where the tracer has and has not accumulated, it is possible to work out how well certain body functions are working which, in-turn, helps to identify abnormalities.

The most commonly used (circa 90-95% of all scans) tracer is 18F-flourodeoxyglucose, or 'FDG'. NHS England commissions several different tracers for use in specific clinical indications, these are generally referred to as 'non-standard tracers'.

A PET-CT service will typically serve a local catchment of referring secondary care providers, each delivering cancer services and hosting a range of cancer Multi-Disciplinary Teams (MDTs) and specialist MDTs. The majority of PET-CT services refer patients that require scans involving non-standard tracers to a small number of centres that are able to deliver these scans, historically based in either London or Manchester. Such referral arrangements also exist where patients need a PET-CT scans under general anaesthetic (GA), however, this is very rarely required because

most scans are undertaken on an ambulatory basis and, where required, sedation is preferable to GA.

NHS England's national Service Specification sets out that on receipt of a referral, the PET-CT service is responsible for patient booking, co-ordinating an appropriate supply of radioactive isotopes, sourcing previous scans, acquiring and reporting the PET-CT image and subsequent communication of the scan and report to the referring clinician. This process should normally be delivered within seven working days or specific time intervals as indicated by treatment plans. The service must also provide support to MDTs and ensure that 10% of all PET-CT scans must be 'double reported' by an independent external clinician as part of a national programme of audit and peer review. This approach is referenced by the Royal College of Radiologists Hybrid Imaging Guidance (2016).

Commissioning context

PET-CT services are nationally prescribed and since 2013 have been solely and directly commissioned by NHS England, using a national Service Specification and Clinical Commissioning Policy, the latter setting out both the clinical uses of PET-CT and the specific tracers that are commissioned.

The service has seen significant and rapid expansion over the course of the last two decades as the technology has moved out of a mostly research setting and into routine clinical use. This shift has resulted in rapidly rising activity levels. Despite the high level of growth, the overall scanning rate per head of population in England is considered to be generally lower than many European comparators. Access to local scanning capacity is a key factor in the scanning rate and therefore, increasing both capacity and ease of access are both seen as important enablers of satisfying what may be latent demand.

NHS England's assessment is that PET-CT services in England are yet to reach a steady state in terms of growth and, therefore, more capacity will be required over the coming decade. For this reason, the procurement, whilst not guaranteeing set activity levels, did forecast that growth would continue by circa 9-10% over the course of the next decade. Securing both increased capacity and access at an affordable price over the contract term are, therefore, important strategic objectives within the procurement.

Historically, the provider landscape for PET-CT services in England has been mixed, with independent sector, charitable organisations and NHS providers involved, either separately or in partnership. Indeed, NHS England completed a first phase of national procurement during 2014-15 which involved re-tendering contracts initially let by the Department of Health to two independent sector providers, Alliance Medical Ltd and InHealth Ltd.

The mixed nature of the landscape has undoubtedly benefited both patients and clinical teams, in the form of more local access, and commissioners because it has allowed for significant capital investment to be made over a relatively short timeframe, allowing scanning capacity to keep-up with rapidly rising demand.

Phase II Procurement

NHS England formally approved a second phase of procurement, covering the other 50% of the market, to commence in 2017. The procurement offered 11 lots to the market, including the Thames Valley geography (Lot 4), and a contract term of up to ten years (7+3).

The decision to procure PET-CT services was taken because, under the current legislative and regulatory framework, there was a compelling case to do so. This decision was informed by an assessment of competition in the market, comprising a Prior Information Notice, together with a period of public engagement about the procurement approach. A report of findings of public engagement, together with the changes that NHS England made to the procurement approach has been published.

The procurement approach was designed to secure long-term service sustainability, improve service quality and consistency and ensure that the benefits of scale and efficiency are appropriately shared with commissioners. These aims were captured in four strategic objectives for Phase II, which were reflected in both the design of the procurement and the evaluation criteria. These are:

- **Sustain integrated and reliable care pathways.** High-performing pathways are well-integrated and seamless for both patients and clinical teams. PET-CT service providers may change because of the procurement, but care pathways must not be adversely disrupted. Within the procurement, this led to a focus on referral and booking processes, the use of IT to transfer images and reports around the whole of the network and timeliness of the service. It also enabled referral and access arrangements to be put in place for non-standard tracers.

- **Secure a service that is high quality and value for money.** Maximising value from healthcare resources is important, in the context of PET-CT this led to a focus on ensuring compliance with the national Service Specification and Clinical Commissioning Policy. It also sought to secure greater service efficiency and, through this, improved value for money. Whilst research activity was not included within the procurement, all bidders were required to demonstrate that scanning equipment would meet technical specification accreditation requirements, such as those set by the UK PET Core Lab, to support research.

- **Ensure sufficient capacity to meet future needs.** Historic and forecast growth is significant and therefore the procurement was designed to secure optimal equipment utilisation, modern workforce practices and fair reimbursement mechanisms so that sufficient capacity is available over the contract term.

- **Avoid reducing competitive pressures in the market.** This was particularly the case in terms of the supply of radioactive isotopes, where the market is highly concentrated. As a result, phase II involved separate procurements to secure both scanning service providers and suppliers of radioactive isotopes. Similarly, lot limits were also included in both procurements.

Composition of Lot 4

Each of the eleven scanning services Lots was constructed based on an assessment of current patient pathways and existing networks of care. As such, each Lot was defined by a network of referring Trusts, reflecting that PET-CT is accessible only through secondary care referral, which were termed 'principal referring organisations'. The network of principal referring organisations in Lot 4 was defined, as follows:

- Buckinghamshire Healthcare NHS Trust, accounting for 9.16% of referral activity within the Lot;
- Great Western Hospitals NHS Foundation Trust, accounting for 5.76% of referral activity within the Lot;
- Milton Keynes University Hospital NHS Foundation Trust, accounting for 4.51% of referral activity within the Lot;
- Oxford University Hospitals NHS Foundation Trust, accounting for 65.46% of referral activity within the Lot; and
- Royal Berkshire NHS Foundation Trust, accounting for 13.27% or referral activity within the Lot[1].

Importantly, the procurement did not seek to disrupt or prohibit referring organisations from enabling individual patients to access PET-CT services further afield. Typically, such referrals are because a patient requires a scan involving a non-standard tracer or very specialist clinical expertise, including scans under general anaesthetic (GA). At present, very few centres offer the full range of commissioned tracers and only a handful are able to deliver scans involving GA.

At the time of data submission to NHS England in 2016, OUH did not undertake any scans involving commissioned non-standard tracers. Furthermore, OUH have also confirmed that any patients requiring a scan under GA would be referred to Leeds, stating that this has never been requested since the inception of the service in 2005.

PROCUREMENT OUTCOME

Evaluation of Tender Responses

Tender responses were assessed in accordance with the evaluation criteria contained within the procurement, as follows:

- Selection Questionnaire – Pass/Fail
- Invitation to Tender (Annex – ITT Questions):
    - Minimum Criteria – Pass/Fail;
    - Legal (Pass/fail);

[1] Activity proportions are based on the results of a 2015-16 data collection baseline exercise undertaken by NHS England will incumbent providers during 2016.

- Technical: Service / Quality – 9 questions attracting 50% of the overall score weighting;
- Technical: Patient Access – 1 question attracting 10% of the overall score weighting; and
- Finance – (i) 3 questions relating to the Bidding organisation's financial model, attracting 20% of the overall score weighting; and (ii) Price, attracting 20% of the overall score weighting.

The technical and financial questions were designed to test the ability of each bidder to deliver the national Service Specification and associated commissioning policy and were based around the four strategic objectives, i.e., integration, quality and value for money and capacity and access.

Each tender response was evaluated according to an agreed evaluation methodology, which included:

- Individual evaluation conducted by each evaluator and used an online system called "Award";
- Moderation, where evaluators discussed their individual scores to determine a final moderated score. The moderation meetings were structured by Lot and by area (e.g. Technical – Service / Quality, Technical – Patient Access, Finance).

Each evaluator met predetermined qualification and experience criteria (Appendices 1-3) and arrangements were put in place to prevent any actual or perceived conflict of interest. Each Moderation Meeting was independently chaired.

InHealth's Proposals for the Thames Valley (Original)

InHealth Ltd has been identified as the Preferred Bidder for Lot 4, having achieved a higher evaluation score against the technical (service quality and patient access) and finance criteria.

The InHealth service will be led by an experienced PET-CT doctor who holds an Administration of Radioactive Substances Advisory Committee (ARSAC) license and who will have managerial responsibility for delivery of all aspects of the service.

The proposed service locations included within InHealth's tender response are:

- GenesisCare, Sandy Lane West, Peters Way, Littlemore, Oxford, OX4 6LB;
- Great Western Hospital NHS Foundation Trust, Marlborough Road, Swindon, SN3 6BB; and the
- InHealth Diagnostic Imaging Centre, Milton Keynes, South Fifth Street, Milton Keynes, MK9 2FX.

InHealth planned to commence service delivery using mobile scanners based at the Oxford and Swindon sites, both within existing healthcare facilities and using existing mobile pads. Over the course of the first year of the contract, the Oxford site would become a static facility. The Milton Keynes service was planned to commence as a new static facility during the first year. The Swindon site was planned to transition into a fixed static unit during 2023/24.

Importantly, whilst the InHealth bid sought to quickly move towards a network of static sites, the use of mobile scanners is in-keeping with the national Service Specification and does not prevent the delivery of any commissioned uses of PET-CT. Linked to this point, all InHealth's PET-CT mobile scanners can safely accommodate in-patient activity.

InHealth's proposed PET-CT equipment is able to deliver intravenous (IV) contrast CT scans, as part of PET-CT scanning. The proposals included the arrangements for those patients that require emergency support, specifically that all scanning services would be delivered by staff with Life Support training and that there would be access to either a hospital-based resuscitation team, a Radiologist or a registered medical officer, i.e., a doctor. This is in-keeping with the requirements of the national Service Specification.

In-accordance with NHS England's Invitation to Tender requirements, InHealth also proposed to use a fully integrated RIS/PACs solution across Lot 4. This enables prior diagnostic images and PET-CT scans and reports to be safely and efficiently transported across the network.

InHealth's Proposals for the Thames Valley (Revised)

The in-principle agreement between NHS England, OUH and InHealth means that all parties are now working towards the following arrangements:

- The Churchill Hospital site;
- Great Western Hospital NHS Foundation Trust; and
- Milton Keynes University Hospital NHS Foundation Trust.

InHealth will commence service delivery on both the Great Western Hospital and Milton Keynes Hospital sites using a mobile PET-CT unit on each site for two non-consecutive days, each week. The operational days will be finalised with local clinicians to align with MDT's and out-patient oncology clinics. Each operational day will consist of 12 hours, scanning up to 20 patients, the patients being a blend of out-patients and in-patients. Each of these locations will transition to a fixed scanning facility:

- The Milton Keynes Hospital will have a fixed PET-CT scanning department in 2021/22; and
- The Great Western Hospital will have a fixed PET-CT scanning department in 2023/24.

Both Trusts are expanding their services to build their own dedicated Cancer Centre's, and InHealth have already begun discussions about locating the fixed PET-CT scanning departments within these centres. The move to static scanners will be aligned with these developments and therefore the move to static scanners may happen earlier.

This ensures that the services will be delivered from a network of acute hospital sites and will enable inpatients on all three sites, rather than solely at the Churchill site, to

benefit from PET-CT scans without the need of hospital transportation. This approach will retain and preserve OUHs research portfolio.

Under the in-principle arrangement, InHealth's clinical lead will work collaboratively with OUH's PET-CT clinicians, who will continue to provide clinical reporting for the service and meet, as a minimum, the requirement that 10% of scans should be double reported. The joint service will also benefit from the proposed RIS/PACS arrangements and will be supported by a local Medical Physics service.

As part of reaching an in-principle decision to work collaboratively, all parties have agreed to develop the partnership in accordance with four key principles:

- To build on the service that already exists in Oxford – retaining the Churchill Hospital site, in terms of both equipment, including the new scanner, and staffing.
- To focus on the patient perspective – access and experience – when undertaking the more detailed work to support the partnership.
- To involve the cancer clinicians/network in discussions about PET/CT scans in cancer pathways.
- To be as flexible as possible to sustain the Oxford service as a centre of excellence.

By working in accordance with these principles, all parties have committed to resolving any residual issues, such as the need to maintain OUH ways of working at the Churchill site, in a constructive and patient-focussed way.

Travel time analysis

Following completion of the tender response evaluation, an assessment of the impact of the proposed Lot 4 outcome on travel times was made. This found that the proposal to deliver PET-CT services from InHealth's network of three sites would significantly improve access compared to the existing single site model.

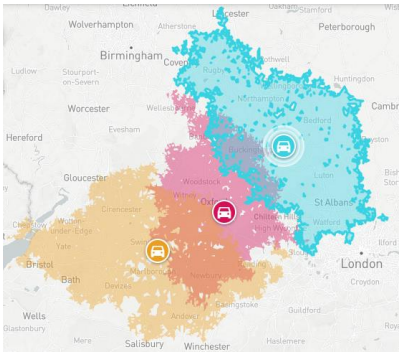
The analysis was conducted using an online tool called TravelTime Platform for each site in each configuration, using the postcode as the reference. The resulting maps show the areas that can reach the site in question within a 30, 45 and 60 minute timeframe, using either car or public transport. Because the Lot covers a large geography, 60 minute driving time is considered to be the most useful comparator (Figure 1).

InHealth's proposed three-site service configuration, with each site being closely situated to large populated hubs, offers clear patient access improvements with whole population able to access services within the 60 minute driving time measure (Figure 1). This is particularly the case for people resident in Milton Keynes, Swindon and Newbury.

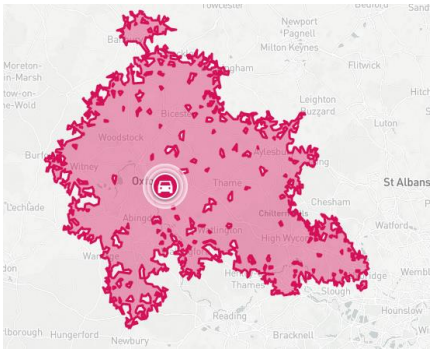
The in-principle service configuration retains the benefits of the InHealth proposals for the populations of Milton Keynes, Swindon and Newbury and means that there is no impact for Oxford population.

Figure 1: 60 minute drive time access

InHealth



OUH



NEXT STEPS

NHS England, OUH and InHealth have already discussed what will be the next steps to develop the detail of the partnership agreement and the supporting contractual and financial arrangements. There will be further meetings taking place in the next two months to progress the work, involving two parallel workstreams: clinical and contractual/financial.

The leads from each organisation have been identified and there will be senior officer oversight to ensure the work progresses at pace and reaches a conclusion. There will also be joint discussions about the overall phasing of implementation to factor in the timetable for opening-up the new services in Milton Keynes and Swindon.

CONCLUSION & RECOMMENDATIONS

NHS England is committed to ensuring that the Thames Valley population benefit from high-quality PET-CT services. It is our view that the partnership arrangements provide distinct benefits in terms of expanded access in Milton Keynes and Swindon, whilst also preserving the Churchill Hospital site.

It is therefore recommended that the Oxfordshire joint Health Overview and Scrutiny Committee:

- Support the partnership plan; and
- Support moderate public engagement to be undertaken in-parallel with progressing partnership discussions as set out in Appendix 4.

Appendix 1: Lot 4 Technical – Service / Quality Evaluation Panel

ROLE	CRITERIA
Chair	Independent individual with no evaluation role. The Chair will be responsible for maintaining order in, and directing, moderation meetings and will take no part in the scoring process other than to ensure that scores and rationale are compliant with the published scoring methodology.
2 X Radiologist / Nuclear Medicine Physician	Required to be currently employed as a radiologist / nuclear medicine physician at consultant level in the NHS and to have at least 5 years direct experience at consultant level in clinical PET-CT in the UK.
Medical Physics Expert	Required to be currently employed as an MPE supporting nuclear medicine and PET-CT services. Must have at least five years' (within the last ten years) experience of supporting the delivery of PET-CT services in the UK.
NHS England Commissioner	Required to be employed by NHS England in a specialised commissioning role and be expert in the commissioning of healthcare services. Must have at least five years' (within the last ten years) experience of health service management in the UK.

Appendix 2: Lot 4 Technical – Patient Access Evaluation Panel

ROLE	CRITERIA
Chair	Independent individual with no evaluation role. The Chair will be responsible for maintaining order in, and directing, moderation meetings and will take no part in the scoring process other than to ensure that scores and rationale are compliant with the published scoring methodology.
NHS England Communications and Engagement Specialist	Required to be directly employed by NHS England in a specialised commissioning role and be expert in patient engagement and communications.
NHS England Commissioner (X2)	Required to be employed by NHS England in a specialised commissioning role and be expert in the commissioning of specialised commissioning services.

Appendix 3: Lot 4 Financial Evaluation Panel

ROLE	CRITERIA
Chair	Independent individual with no evaluation role. The Chair will be responsible for maintaining order in, and directing, moderation meetings and will take no part in the scoring process other than to ensure that scores

	and rationale are compliant with the published scoring methodology.
NHS England Qualified Accountant (X3)	Qualified Accountant expert in health care finance and directly employed by NHS England in a specialised commissioning role.

Appendix 4: Lot 4 Proposed Engagement Activities

The following engagement activities will be undertaken to support implementation of the procurement outcome.

- Publication of the proposed approach to delivering PET-CT services in the Thames Valley including the new arrangements for access on the NHS England website. Contact details will be provided for members of the public, staff, patient groups and other interested stakeholders to comment by email or in writing.

- A briefing will be provided (similar to this one) for other HOSCs in the Thames Valley to alert them to the proposals and give them the opportunity to comment on the proposals and invite NHS England and InHealth to future meetings if required.

- A briefing will be prepared and sent to all Thames Valley MPs and local Health Watch's giving them the opportunity to comment on the proposals.

- Hold a face to face or online meeting for local patient groups and relevant local healthcare charities affected by the proposals in Oxford. We welcome suggestions from the HOSC and Health Watch as to which organisations should be invited.

- Briefing on the proposed change to be sent to NHS England's cancer clinical reference groups and their registered stakeholders. Members of the public and other stakeholders can register on the NHS England website to receive these updates.

- Analysis of the outcome of the engagement along with a summary of responses and any changes made to the proposals as a result will be shared electronically with all the key audiences engaged and all those who submitted comments at the end of the engagement period.

Appendix 5: Weblinks

Cabinet Office Pre-election period guidance:
https://www.gov.uk/government/publications/election-guidance-for-civil-servants

Engagement report:
https://www.england.nhs.uk/publication/pet-ct-phase-ii-design-of-procurement-engagement-report/

Stakeholder registration page:
https://www.england.nhs.uk/commissioning/spec-services/get-involved/crg-stake-reg/