

SURE – Equipment Provided to the Beacon Centre during 2016

During 2016 SURE was able to commit **£70,774** to providing additional items of equipment to the Radiotherapy Department at the Beacon Centre along with other items of equipment to the wider Oncology departments at Musgrove Park Hospital to further improve patient treatment and outcomes.

By mid 2016 SURE had raised the **£550,000** targetted for the purchase of a new Big Bore CT Scanner/Simulator for the Radiotherapy Department at the Beacon Centre, to replace the existing scanner provided by SURE when the Beacon Centre opened in May 2009 This was achieved 9 months ahead of schedule and the funds have now been ring-fenced for this project. The Beacon centre will undertake an evaluation of equipment suppliers during 2017 to determine the appropriate scanner to purchase, with the new scanner planned to be live by April 2018.

1. **Annual Maintenance charges** SURE funded **£26,357.06** towards the annual maintenance charges of Radiotherapy equipment for the period to 30.9.2016
2. **Medicare 3-section scanning couch for Superficial x-ray treatment** used to safely position patients during superficial x-ray treatments, SURE funded the purchase of a new couch, at a cost to SURE of **£1,399**
3. **Ashland Film QA Pro software** SURE funded the purchase of specialist software to support the completion of the testing programme, allowing SABR (Stereotactic Ablative Radiotherapy) treatment to be introduced at the Beacon Centre, at a cost to SURE of **£13,966**.
4. **Paperless Radiotherapy Project** SURE supported the move to paperless working in the Radiotherapy Department. The Beacon Centre Radiotherapy Department was already considered paper-light This project aimed to remove the use of any paper documents in the delivery of radiotherapy treatment, leading to further improvements in patient safety and experience. SURE funded the provision of in-bunker screens, process automation using IQ scripts to augment the MOSAIQ system patient workflows, making existing MOSAIQ functionality mobile, avoiding patient notes and information having to be collated and printed by using securely networked tablet-based MOSAIQ functionality, at a cost to SURE of **£21,381.42**
5. **Radiotherapy Network Area Storage (NAS)** SURE funded the purchase of 2 new computers to provide a NAS system for the radiotherapy service. It is used for backing up all images acquired and used in RT, including CBCT Synergy images and provides a “live” archive for the Pinnacle treatment planning system. The system is mirrored to provide additional redundancy. Provided at a cost to SURE of **£6,250.52**
6. **Cancer Patient Treatment Triage/Advice Line** SURE funded the purchase of Netcall telephone system and recording facilities to enable the provision of a single contact telephone number for all patients receiving treatment at the Beacon Centre to seek advice, enabling all patients to receive consistent advise in response to any concerns they have in relation to their ongoing treatment, radiotherapy and chemotherapy. Provided at a cost to SURE during 2016 of **£1,480**. with the final costs to complete the project to be incurred in 2017.

A look ahead at 2017

SURE is committed to ensuring the Beacon Centre continues to offer high quality cancer care to internationally recognised standards. SURE has committed to support the purchase of a new MRI scanner at Musgrove Park Hospital (at an estimated cost of £1M+), at the same time as SURE continues to provide equipment and support not otherwise available within the NHS budget that is assessed to be of real benefit to patients. SURE is committed to supporting the introduction of new advanced cancer treatments, and enabling the Beacon Centre and wider Oncology department at Musgrove Park Hospital to participate in national cancer treatment trials, leading to more patients being able to be treated locally at the Beacon centre.

1. **MRI Appeal** – Analysis has shown that around 25-30% of all MRI use at Musgrove Park Hospital can be attributed to an element of the cancer treatment pathway, and with more areas of cancer diagnosis, planning, treatment and follow-up making use of MRI in the future, SURE has already pledged £100,000 to the appeal and this has now been ring-fenced for this project. The new MRI is planned to be live in early 2018.
2. **Dragon Medical Voice Recognition** SURE has agreed to fund the purchase of specialist medical Voice Recognition software for the Histopathology Department, which will speed up and improve accuracy of their reports. At a cost to SURE of **£14k**
3. **Gafchromic Film** SURE has agreed to fund the purchase of additional film required to support ongoing SABR QA testing and treatment planning, at a cost of **£1.4k**
4. **Adobe Acrobat Licences** SURE has agreed to support the expansion of paperless working practises into the Radiotherapy Physics Department where significant progress is being made in developing the use of electronic working including e-signatures. To fully implement the new paperless processes across the Physics department SURE has agreed to fund the purchase of 9 full Adobe Acrobat Licenses, at a cost to SURE of **£1.7k**
5. **Digitising Tablets** In 2010 SURE funded the purchase of 5 WACOM digitising tablets for the Radiotherapy treatment planning department. These are used by oncologists to define radiotherapy treatment targets for Beacon centre patients and by members of the planning team during the planning process. The original units are now ageing, the model is now obsolete, therefore SURE has agreed to fund the purchase of 6 new tablet monitors, 5 replacements and one for a proposed additional workstation in the planning department. The existing tablet monitors will then be reused elsewhere in the Beacon centre until their end of life. At a cost to SURE of **£10k**
6. **Radiotherapy Bladder Preparation Management** Patients having treatment to pelvic cancers (bladder, prostate, lower GI, gynaecological) are required to attend radiotherapy and follow a bladder preparation programme before each treatment delivery. For many patients this means arriving an hour before to fill their bladder to a precise volume. Where patients are then observed on treatment x-ray pictures to not have the correct bladder size they have to restart the bladder preparation analysis has shown that around 41% of prostate patients at their preliminary planning CT are rescanned due to bladder volume issues, and that 90% of prostate patients require repeat treatment scans due to sub-optimally filled bladders. The proposal is to scan using simple ultrasound equipment before their radiotherapy planning scan and each of their radiotherapy treatments (up to 25 in a course) : minimising delivery of additional radiation dose from multiple xrays, reduce patient waiting times, improve overall patient comfort, experience and quality of care. To this end SURE has agree to fund the purchase of 2x BioCon 700 Cubescan 700 Bladder Scanners and associated scanner trolleys,

at a cost to SURE of **£13k**

- 7. Dual Registration Software** In 2013 SURE provided significant funding to support the purchase of a cone beam CT imaging (CBCT or Synergy) unit together with a full set of supporting software. There was already an existing Synergy unit on another Linac, installed in 2009, that came with a basic set of software, the proposal is to raise the level of software on the original Synergy to Dual Registration, also known as Critical Structure Avoidance. DR allows radiographers to perform a critical structure and tumour registration on the same image, and make corrections based on either or both based on clinical decisions for the individual patient. This will benefit Head & Neck, lung SABR, and Prostate patients, including enabling participation in the POPS (prostate) trial. SURE has agreed to fund this at a cost to SURE of **£15k**
- 8. HOPE Counselling Centre** SURE is supporting setting up the HOPE Counselling Centre in a separate location inside the main hospital, near to the Beacon centre. This allows 2 specialist counsellors to provide support to cancer patients and their families in a quiet, friendly atmosphere. SURE has agreed to fund the purchase of a bespoke wall divide which will give flexibility in the use of the counselling centre, new furniture and new carpet, at a cost to SURE of **£13k**
- 9. MRI Ultrasound Fusion** This project is to enable MRI fusion for targeted diagnosis of Prostate cancer. In essence it superimposes the suspected prostate cancer lesion from the MRI onto the ultrasound machine, ensuring more accurate targeting of the suspicious area, rather than the current method where the consultant notes the position of the abnormality on the MRI scan and mentally targets this during the ultrasound guided biopsy. As MRI is increasingly used and more lesions are seen then this fusion technology will become standard. Without Fusion Scanning there is a risk of missing significant prostate cancers on biopsy, which have been detected on MRI scan. This can often lead to a delay in cancer diagnosis and subsequent treatment. If biopsies are negative and the suspicion of prostate cancer remains, patients often require repeat prostate biopsies which exposes the patient to potential complications which could be preventable. The cost of purchasing a new ultrasound machine with MRI fusion is around £105k, however the Hitachi Preirus Ultrasound machine purchased in 2014 to participate in the PROMIS (Prostate MRI Imaging Study) is capable of being upgraded to MRI fusion. SURE has agreed to fund the purchase of the required software and hardware upgrade to deliver this, at a cost to SURE of **£32k**