

SURE – Equipment Provided during 2017

During 2017 SURE committed funding of **£113,495.72** 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.

A further **£22,144** of previously approved funding commitments have been ring-fenced and are expected to be invoiced to SURE in 2018.

1. **MRI Appeal** - SURE committed to support the Love Musgrove MRI Million appeal for the purchase of a new MRI scanner at Musgrove Park Hospital (at an estimated cost of £1M). 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 pledged the first **£100,000** to kick-off the appeal and this is ring-fenced for payment in 2018. A number of SURE fundraisers also ran events during 2017 to raise donations for the MRI Appeal, these will be added to the £100,000 when the appeal closes.
2. **Dragon Medical Voice Recognition** SURE funded the purchase of specialist medical Voice Recognition software and associated hardware for the Histopathology Department, which will speed up and improve accuracy of their reports. At a cost to SURE of **£15,812.24**
3. **Gafchromic Film** SURE funded the purchase of additional film required to support ongoing SABR QA testing and treatment planning. At a cost to SURE of **£1,015**
4. **Adobe Acrobat Licences** SURE agreed to support the expansion of paperless working practises into the Radiotherapy Physics Department, developing the use of electronic working including e-signatures. SURE funded the purchase of 9 full Adobe Acrobat Licenses. At a cost to SURE of **£1,620.19**
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 the planning team during the treatment planning process. The original model is now ageing and obsolete. SURE funded the purchase of 6 new tablet monitors, 5 replacements and one for a proposed additional workstation in the planning department. The existing tablet monitors are being reused elsewhere in the Beacon Centre until their end of life. At a cost to SURE of **£10,066.44**
6. **Cancer Patient Treatment Triage/Advice Line** During 2016 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 advice in response to any concerns they have in relation to their ongoing treatment, radiotherapy and chemotherapy a cost to SURE of £1,480 with final funding in 2017 at a cost to SURE of **£3,723.60** to complete the project.
7. **Radiotherapy Bladder Preparation Management** Patients having radiotherapy treatment to pelvic cancers (bladder, prostate, lower GI, gynaecological) are required to 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 additional radiation doses from multiple xrays, reduce patient waiting times, improve overall patient comfort, experience and quality of care. SURE funded the purchase of 2x BioCon 700 Cubescan 700 Bladder Scanners and associated scanner trolleys, at a cost to SURE of **£11,810.26**

8. **Dual Registration (DR) 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 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 approved funding this, at a cost to SURE of **£15,000**
9. **HOPE Counselling Centre** SURE supported setting up the HOPE Counselling Centre in a separate location inside the main hospital, near to the Beacon Centre. This allows 2 full-time specialist counsellors to provide support to cancer patients and their families in a quiet, friendly atmosphere. SURE funded 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 in 2017 of **£6,542.99**, the remaining costs are expected to be invoiced in 2018.
10. **MRI Ultrasound Fusion** This project is to enable MRI fusion for targeted diagnosis of Prostate cancer. 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, 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 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. A new ultrasound machine with MRI fusion is around £105k, however the existing Hitachi Preirus Ultrasound machine at Musgrove Park, purchased in 2014 to participate in the PROMIS (Prostate MRI Imaging Study) trial, could be upgraded to MRI fusion. SURE approved funding the purchase of the required software and hardware to deliver this, at a cost to SURE of **£32,000**
11. **CC04 Ion Chamber** The small volume Ion chamber is used for VMAT quality checks and will be key to SABR quality checks. In 2016 SURE agreed to fund the purchase of a second Ion Chamber to provide a backup, ensuring continuity should the initial Ion chamber fail, this was invoiced in 2017. At a cost to SURE of **£1,334**
12. **Reclining Chairs** The Beacon ward had recently purchased five new Merlin Lift and Recline chairs for the use of inpatients on the ward, the patients found them really comfortable, they help to promote independence for patients and the nurses have found them hugely helpful in facilitating safer manual handling of patients. The new chairs are also approved by infection control as they are easier to clean than the existing material covered chairs. SURE agreed to fund the purchase of a further 9 chairs to replace the remaining 8 year old chairs, provided when the Beacon ward opened. At a cost to SURE of **£14,571**

A look ahead at 2018

SURE is committed to ensuring cancer services at Musgrove Park Hospital, and the Beacon Centre in particular, continues to offer high quality cancer care to internationally recognised standards, 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 and improved cancer diagnosis and treatments, enabling the Beacon Centre and wider Oncology departments 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. CT Scanner/Simulator** The replacement of the SURE funded CT Scanner/Simulator in the Beacon Centre is due to be completed in June 2018, at a final cost to SURE (including maintenance for year2 and year3) of **£566,605** which has been held ring-fenced in the SURE accounts since mid-2016. The first invoices expected for payment in 2018 are:

CT purchase cost of **£374,789**

Turnkey Room works **£75,866**

This will leave **£115,950** ring-fenced for future maintenance charges : **£57,975** for year 2 maintenance to be paid in 2019 and **£57,975** for year 3 maintenance to be paid in 2020.

- 2. Paperless Radiotherapy Project** SURE supported the move to paperless working in the Beacon Centre Radiotherapy Department. 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 MOSIAQ functionality mobile, avoiding patient notes and information having to be collated and printed by using securely networked tablet-based MOSIAQ functionality. In 2016 SURE funded £21,381.42 for this project, additional funding of **£2,909.76** has been approved to complete the project in 2018.

- 3. Liteform Trial** This trial is looking at the use of Low Level Laser Therapy (LLLT) to treat Head & Neck radiotherapy patients who could be suffering from oral mucositis. SURE has approved funding of **£6,420** for the purchase of a Thor Photomedicine Ltd LX2 Laser Control Unit, dental probe, Placebo Function adaptor box for the dental probe and associated equipment required to enable the Beacon Centre to participate in the trial during 2018.

- 4. Valley cushions** The Valley-SV cushion is designed to relieve pressure from the "mid-line" areas around the perineum, and is very effective for patients both during and post radiotherapy where the discomfort can cause difficulties for patients when travelling to hospital, sitting in waiting rooms and getting comfortable at home. It uses a combination of foam and air to provide a comfortable seating platform on either side of the central pressure relieving channel. Compared to a traditional 'ring' cushion it does not compromise blood circulation or lymphatic drainage. SURE has agreed to fund the purchase of 10 new valley cushions at a cost to SURE of **£1,600**

5. Other potential projects proposed for SURE funding in 2018 awaiting detailed proposals and quotes before being considered for funding:

- Mosaik upgrade: disaster recovery system - **£10,000**
- Mosaik upgrade: Trust sequencer upgrade - **£3,000**
- Creatinine blood measurement device - **£5,000**
- Development funding for Motion Capture pillow for use in Head&Neck radiotherapy treatment, potentially replacing the use of full face radiotherapy masks. Project being undertaken jointly with the Bristol Robotics Lab - **£TBC**

- Providing equipment as part of the redevelopment of the Beacon Centre Outpatients department to accommodate an increase in doctors and staff during 2018 - **£TBC**
- Providing equipment as part of the redevelopment of the Beacon Day Unit to add further treatment space and to improve patient experience - **£TBC**

A look ahead at 2019

Planning is underway for the replacement of the three Linear Accelerators used to deliver Raditherapy treatment at the Beacon Centre completing in 2021. SURE is looking at funding those elements of the replacement not covered by the replacement programme.

This includes funding the provision of the Mosaiq Data Director (may require purchase by end of 2018), plus other computer system upgrades in 2019 and funding the purchase of patient immobilisation device updates for each new Linac as they are replaced.

The potential funding by SURE in 2019 is currently estimated to be **£370,000**.