

South East Scotland Cancer Network Annual Report 2017-2019



SCAN is a multidisciplinary NHS network which was established to improve cancer care in the South East of Scotland by facilitating communication and partnership working across the four South East Scotland Health Boards.

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1. Foreword by James Mander, SCAN Clinical Lead

It gives me great pleasure to introduce the South East Scotland Cancer Network (SCAN) Annual Report for 2017-19. The report reflects the enormous range of activities across the four constituent Health Boards that are being undertaken to improve care and outcomes for all our cancer patients.

The quality of the care regional cancer services provide has continued to improve over the last two years as evidenced by our performance against the national Cancer Quality Performance Indicators introduced in 2013. The data is meticulously collected and collated by our SCAN Audit Team. Beyond that our nine Tumour Specific Groups and Primary Care Group continue to act as the vital interface between day to day cancer care delivery and strategic development of a cancer service for the next generation of patients. These groups provide a robust multidisciplinary forum for audit, reflection, quality improvement, innovation and research.

Regional priorities over the last two years have included a focus on cancer waiting times, planning an upgrade of the regional chemotherapy prescribing platform (ChemoCare), a regional chemotherapy review (to standardise regimes and ensure best practice is disseminated throughout the Region) and introducing innovative radiotherapy regimes to minimise side effects. SCAN hosted the first regional Clinical Nurse Specialist Educational Day in 2018, which proved extremely popular and will be followed by other similar events. The Regional Cancer Centre team have begun the process of developing an Initial Agreement to be submitted to Scottish Government for a business case to design a new Edinburgh Cancer Centre, supported by the partner Health Boards Oncology teams. This project will ensure that the patients will continue to receive the very best modern cancer care in the safest possible environment.

Members of SCAN play important roles nationally in the development of guidelines, the audit of practice and the strategic development of national cancer services. A number of Tumour Groups have hosted national education events this year. The HepatoBiliary Pancreatic (HPB) Team led by Anya Adair are undertaking a national audit of treatment of liver metastases to ensure equity of access across the whole country to the very best modern treatments. Professor Mark Strachan is leading a National Thyroid Cancer group to achieve consensus and alignment with British Guidelines for management of this increasingly common tumour.

I would like to thank all the clinical staff and patient representatives who energetically and enthusiastically run the Tumour and Primary Care groups, as well as the entire SCAN team who audit and administrate so many diverse activities with such skill. A particular mention should be made to two of the SCAN team who are moving on to pastures new. Mark Allardice who has been SCAN Modernisation Manager since 2016 and has contributed a huge amount recently to the Regional SACT review is moving to National Services Scotland. Kate Macdonald SCAN Network Manager since 2008 has led me and the team with extraordinary skill, diligence and energy. She is moving on to a new role in regional planning and her's will be huge shoes to fill. We are extremely grateful to both of them for their long service and huge contribution to regional cancer improvements over the last 10 years.

Thank you to everyone that has contributed to this report and for all your dedication, hard work, partnership working and support to regional cancer services development and the SCAN team over the last two years.

James Mander
SCAN Clinical Lead

2. Introduction

This report covers the South East Scotland Cancer Network (SCAN) programme activity from April 2017 to March 2019. The regional cancer network has delivered and achieved a wide range of actions and outputs over the two years, through regional collaboration from clinical and management teams, voluntary sector, and on the firm foundations of public and patient involvement.

The regional work programme covers projects commissioned and approved by the Regional Cancer Advisory Group (RCAG), comprised of the constituent SCAN Board Chief Executives, Medical Directors and Planning Leads. The programme covers the whole patient pathway from prevention, screening, referral, early detection, treatment and support for people, to keeping well and help them manage their own care once they have left active treatment.

The Regional Cancer Network provides the opportunity for the four Boards of South East of Scotland to work collaboratively to improve cancer services through shared decision-making in service planning to maximise the efficiency and effectiveness of investment. The outcomes of the partnership working are detailed in the project and Tumour Specific Group summaries.

The advent of the National Cancer Strategy “Beating Cancer: Ambition and Action” published by the Scottish Government in March 2016 sets out a five-year road map for developing cancer services in Scotland. This strategy remains the foundation that SCAN activity is built upon and determines the existing SCAN service priorities and planned programme activity.

3. South East Scotland Cancer Network

Cancer Networks underpin the delivery of the National Cancer Strategy Beating Cancer: Ambition, Actions & Strategy for Scotland (March 2016), supporting the ambition that cancer incidence, morbidity and mortality is decreased, whilst patient empowerment, knowledge and quality of life is increased.

The South East Scotland Cancer Network brings together cancer professionals and organisations from primary, secondary and tertiary care across the South and East of Scotland to work in a co-ordinated manner, transcending geographical, organisational and professional boundaries to ensure equitable provision of high quality, clinically effective, patient-centred cancer services. Local networks of the constituent Boards of NHS Fife, Borders, Lothian and Dumfries and Galloway link with all local organisations with an interest in cancer services including Health & Social Care, Local Health Councils, Cancer Patient Support groups, Universities and Local Government. The added value of SCAN is the bringing to together of the energy, enthusiasm and expertise of all those committed to improving cancer services for a population of approximately 1.5m people.

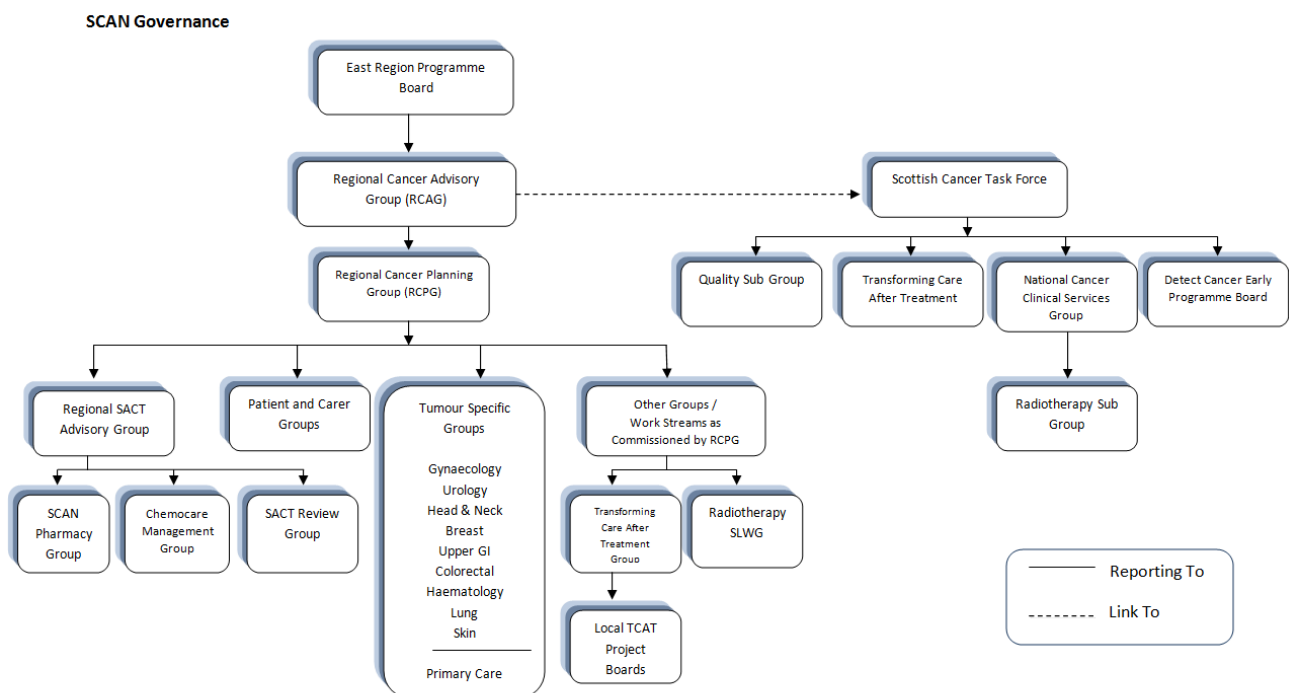
SCAN leads on the regional collation and reporting of data and Quality Performance Indicators to support service improvements, to ensure national standards are met and that clinical practice is delivered to an equitable high standard. Nine Regional Tumour Specific Groups (TSGs) underpin the Managed Clinical Network alongside a range of other

professional and specialty groups such as Pharmacy, Chemotherapy, Nursing, Radiotherapy and Lead Clinicians, to drive forward improvements in care and outcomes for patients.

SCAN is part of the wider East Region Regional Planning arrangements, reporting to the Regional Cancer Advisory Group (RCAG). RCAG provides a regional governance role and is responsible for agreeing and overseeing delivery of the SCAN Work Plan and any emerging projects.

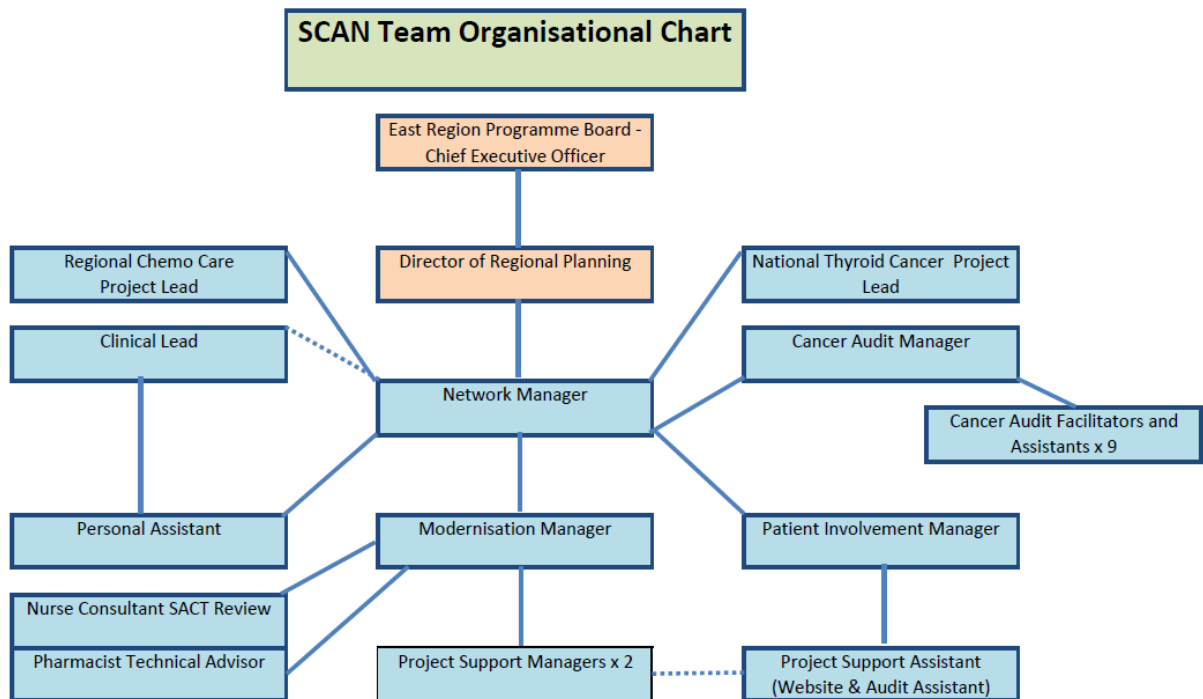
Governance arrangements and strategic links are illustrated in Chart One.

3.1 Chart One: SCAN Governance Flow Chart



The Regional Cancer Network Manager has overall responsibility for delivery of the regional work programme supported by the SCAN Modernisation Manager, Audit Manager, Patient Involvement Manager, ChemoCare Project Lead, Two Project Support Managers, Project Support Administrator and a Personal Assistant.

3.2 Chart Two: SCAN Organisational Chart



4. Delivery of SCAN Work Plan Initiatives

The following sections detail the projects, activities and key priorities that have been commissioned by the SCAN Regional Cancer Advisory Group from April 2017 to March 2019 to improve services for the population of South East Scotland.

Further detail of the activities in the Regional SCAN work plan and those for the Tumour Specific and Project group activities are in the supplemental work plan documents, and are available on request.

4.1 Electronic SACT Prescribing System (ChemoCare)

In June 2018, CIS Oncology the national supplier for ChemoCare (the electronic prescribing system for Systemic Anti-Cancer Therapy in SCAN) issued an end of life notice to all cancer networks in Scotland advising they will no longer be able to provide support for the current version of the system (5.3.4) from the end of May 2019 as the technology underlying ChemoCare is a discontinued product from Microsoft. This requires SCAN to upgrade the current version to a newer web-based version (V6) to address the underlying technology and reinstate support as soon as possible.

The existing SCAN regional support contract for ChemoCare ended in September 2018. A one month rolling contract was negotiated with the supplier, to continue until upgrade to the new version of ChemoCare. SCAN has been working with National Specialist Services Procurement, eHealth and Pharmacy to understand the contractual requirements of the upgrade to a new version, with plans to agree contractual terms by the end of July 2019.

The Regional Cancer Advisory Group agreed in March 2019 to renew the existing contract for three years with an option to extend for a year if required and at the same time work with NSS colleagues to initiate a national commercial tender procurement process. There is work ongoing to scope the infrastructure requirements, project plan, timelines, and hardware in each SCAN Health Board and coordinate regionally to enable this work to commence.

SCAN secured funding to appoint a Project Manager to support the regional coordination and oversee the project development. Lorna Hart, Senior Nurse from the Edinburgh Cancer Centre was appointed to this post in October 2018, bringing a wealth of clinical experience in SACT service delivery and an intimate understanding of ChemoCare in the clinical setting.

4.2 Systemic Anti-Cancer Therapy Regional Review

The SCAN SACT Review Project was commissioned by Chief Executives in March 2016 to undertake a comprehensive review of the delivery of SACT services in the region, with the purpose of ensuring that service delivery is based on best practice and provided in the most efficient and sustainable way, making best use of resources and skill mix.

The Project has been led by a core project team reporting to the Regional SACT Advisory Group which provided governance and oversight for the project, commissioning several sub-groups to take forward specific objectives from an agreed Action Plan.

The Project was delivered in two phases. Phase One focussed on understanding existing delivery models, data capture on current service provision, identifying shared issues and

agreeing areas for improvement. Phase One was summarised at a World Café Event in February 2017 where key stakeholders from across the region agreed an action plan for Phase Two.

Phase Two of the project established service improvement plans for all the SCAN Health Boards and developed an activity modelling tool which will enable staff to understand and plan for the impact of any changes in local service delivery. In addition patient experience and staff surveys of each of the SACT units across the South East Region influenced both the regional approach and local service developments. Overwhelmingly positive feedback from patients reflects the hard work and dedication of the staff providing treatment across the region.

The SACT Review Summary Report key highlights include:

- Alignment of best practice across the SCAN Region through development of an Optimal SACT Pathway;
- Improved collaboration and cross regional working across SACT services, with a shared understanding of local board and regional SACT infrastructures, models of care and where there is variation across service delivery. Feedback sessions in local SACT units discussed the variation and created a local action plan to address these;
- Development of an activity modeling tool to support changes in services such as new drug regimens, immunotherapy, and the impact of changes to workforce capacity or demand. The tool is potentially a powerful aid to workforce planning for Boards and has been well received by clinical teams;
- The Senior Nursing sub group has worked in collaboration with Napier University to update the SACT Nurse Education Programme benefiting all SACT teams across SCAN and ensuring regional consistency;
- Capturing the patient experience of moving through the SACT treatment pathway together with the staff experience, providing managers and clinical teams with insight into issues and opportunities for service improvement.

The project is drawing to a close with the final report due to be submitted to Regional Cancer Advisory Group (RCAG) in May 2019, and there will be a number of legacy actions to complete by October 2019:

- Finalise the Activity Modeling Tool with workforce colleagues and explore options to implement on an online platform. Training in its use will be rolled out across the Region over Autumn 2019;
- Progress updates on the implementation of the Optimal SACT Pathway will take place through local governance groups and Regional SACT Advisory Group;
- A Senior Nursing Sub Group will deliver SACT education and training actions and will provide a reference and nursing consultation group for SACT within the SCAN network;

- Workforce challenges for specialist SACT teams will require ongoing reporting of service issues, progress with action plans via the Regional SACT Advisory Group. This group will receive local and regional reports to monitor progress and escalate any issues to RCPG and RCAG as required.

It is proposed that the project is formally closed with legacy workstreams overseen via the Regional SACT Advisory Group. Outcomes will be published via a final report summarising the project successes, challenges and lessons learned.

4.3 SCAN Cancer Audit

Clinical Quality Monitoring and Improvement

Cancer audit is an essential resource to monitor the provision of cancer services and patient outcomes throughout Scotland. In SCAN high quality cancer audit data has been collected for almost 2 decades. This allows scrutiny of the quality of cancer care throughout SCAN and comparison with the rest of Scotland to facilitate the improvement of patient care and outcomes for cancer patients in SCAN.

Quality Performance Indicators (QPI) Reporting, National and Regional

Annual reporting against QPIs for all Cancer Networks and Health Boards was mandated by the Scottish Government in 2012 (CEL 06). Information Services Division (ISD) provides three-yearly national reports using audit data. Results in SCAN are subjected to expert clinical review to make recommendations for implementing improvements in accordance with the CEL. Action plans are developed by each Health Board in SCAN in order to document progress with assurance provided through structured clinical governance processes. SCAN comparative reports are available on the SCAN website www.scan.scot.nhs.uk.

National reports for 2017-18 included acute leukaemia, bladder and testicular, all published by ISD: <http://www.isdscotland.org/Health-Topics/Quality-Indicators/Cancer-QPI/>

National Network Meetings (ISD Supported)

SCAN audit data has been presented at the following National Network Meetings

Tumour Group	Date
Lung	2017
Upper GI	2017
HPB	2017
Gynae	2017
Melanoma	2018
Oesophageal-gastric	2018
Head and Neck	2018
Breast	2018
Melanoma	2018
Prostate	2019

Survival Analysis and Recurrence

The reporting of survival is dependent on the availability of several years of high quality data. With several years' worth of cancer audit data now available throughout Scotland via the QPI programme, survival analyses using the cancer audit datasets is now possible. The first survival analyses carried out by ISD were for Upper GI, Ovarian, Head & Neck, and Cervix and Endometrial cancers.

In 2015 SCAN led the way in instigating a recurrence study using breast cancer audit data from 2007. Since then, a regular programme of review and presentation has been established with 10 year recurrence data now being investigated. Healthcare Improvement Scotland as part of the National Quality Assurance and Scrutiny element of the Quality Programme commenced review of QPI compliance in each of the regional Cancer Networks. SCAN compliance will be reviewed in the summer of 2019.

Audit Resource and Quality of Data

The SCAN Audit team and Audit Facilitators throughout SCAN dedicate their time to meticulous data collection, analysis and reporting. In addition to the mandatory QPI reports produced annually for each of the 18 tumour sites, SCAN Audit staff have provided data for numerous clinical audit and quality improvement projects throughout the year.

SCAN Audit resource issues affecting Head and Neck cancer data collection in NHS Lothian and Borders were resolved in Spring 2018 and the SCAN Audit team have done a tremendous job in retrospectively completing the data collection and providing analysed QPI results to ISD for the National Head and Neck report which was published in May 2019.

The combination of data collection and analysis makes the SCAN Audit Facilitators experts in their own fields and they continue to provide expert feedback to ISD as the QPI datasets are reviewed and refined.

The reliability and quality of our data remains dependent on our committed and experienced audit staff throughout SCAN.

Lorna Bruce
SCAN Audit Manager

5. Transforming Care After Treatment

The Transforming Care After Treatment (TCAT) programme is a five year partnership between the Scottish Government, Macmillan Cancer Support, NHS Scotland and Local Authorities. The aim of the programme is to test new ways of working to support people, keep them well and help them manage their own care once they have left active treatment.

The final phase of the programme and funding was in 2017/18 where SCAN was awarded £200k of funding from the National TCAT Programme Board. The same amount of funding went to the West and North of Scotland Cancer Networks to implement the regional phase 3 priorities.

The SCAN Phase three priority projects were:

- NHS Fife Palliative Care – expanding the service principles to Upper GI, Renal and Head & Neck;
- NHS Borders Re-ablement – expanding the service across the Borders area;
- NHS Borders Acute – expanding the service to achieve sustainability and increasing treatment summary uptake.

Most projects regionally and nationally have initiated Holistic Needs Assessments (HNA) and are promoting use of this routinely, with applicability to other long term conditions. SCAN has also identified Treatment Summaries as a priority for the region and is working with regional eHealth colleagues and Tumour Specific Group leads to develop a regional approach for this methodology.

All SCAN regional TCAT projects concluded by December 2018, with final reports circulated to regional governance groups in early 2019. Macmillan have proposed another cycle of funding in partnership with Scottish Government to further embed and sustain the exemplar projects and a decision on this is anticipated in Summer 2019. SCAN priorities for funding are likely to focus on development of Treatment Summaries, Holistic Needs Assessment, and Best Supportive Care models.

6. Patient Involvement and Information

In February 2018 SCAN welcomed Helen Taylor to the position of SCAN Patient Involvement Manager. Helen came to the team with an extensive background in Paediatric Nursing and an excellent track record of Patient and Carer Engagement and Involvement.

Since coming into post Helen has successfully implemented SCAN Patient Representative Terms of Reference and a Patient and Carer Involvement Strategy in consultation with SCAN Boards and Scottish Health Councils. The Strategy follows principles outlined within The National Standards for Community Engagement and has been influenced by a range of policies, guidance and legislation. The Strategy provides a framework for consistent, strong and effective engagement with patients and carers on the development and provision of Cancer Services across South East Scotland thus ensuring the patient and carer perspective is included in decisions.

Patient involvement in the Tumour Specific Groups remains part of SCAN core business. In order to support patient involvement more effectively an introductory handbook has been

developed for Patient Representatives outlining the role of the Patient Representative including time commitment, expectations, involvement opportunities and the support and commitment offered by SCAN to enable participation. In line with this, Patient Representatives will now have a set tenure of 3 years; this is to ensure that the patient experience remains as current, relevant and up to date as possible.

A patient and carer representative Forum was established in 2018 to look at more generic issues affecting patients with a cancer diagnosis. The Forum has already had discussions on “What Matters to Me” and “Realistic Medicine”. The Forum will be consulted by Tumour Specific Groups and the Regional Primary Care Group on matters which require a patient and carer perspective.

Helen alongside a SCAN Patient Representative participated in the Stakeholder group for the Scottish Cancer Patient Experience Survey (SCPES) 2018, with results from the survey published in April 2019.

6.1 Patient Reported Outcome Measures

There is good evidence that the care of cancer patients can be improved by asking them to report on their health using validated questionnaires. Patient Reported Outcome Measures (PROMs) are questionnaires patients complete on their health and quality of life. Patient Reported Experience Measures (PREMs) allow patients to feed back on the service they receive. The information collected from PROMs can help to monitor patient progress, facilitates discussion between professionals and patients on health issues and improve the quality of health services.

The South East Scotland Cancer Network (SCAN) and the Edinburgh Cancer Centre (ECC) worked with the digital technology company Px HealthCare who have developed the OWisE tools to enable capture of PROMs in Breast Cancer Services. OWisE enables patients to track and record the impact of their diagnosis treatment and condition on a regular basis, via a website or mobile app. The tool offers useful information, tailored insight and support regarding the type of breast cancer. It provides a record to reflect back on progress, diary functionality and place to record questions in readiness for appointments.

This enables the multidisciplinary team to have access to more in-depth feedback from patients between appointments, which can be used to help monitor progress, outcomes and informed decision-making.

Feedback on the app from patients was positive but further work is required to sustain and embed the capture of PROMs data alongside clinical pathways.

Further national funding has been announced for additional projects, with bids being submitted from SCAN clinical teams and anticipated announcements on the successful areas in summer 2019.

SCAN Website: www.scan.scot.nhs.uk

In addition to information about different kinds of cancer, the SCAN website aims to offer information about local services, not found on other NHS or third sector websites. It is a valuable resource for patients, carers and health professionals.

In December 2018, SCAN welcomed Kit Gilchrist to the position of Project Support Assistant. This is a dual role, maintaining and updating the SCAN website and data entry within the Audit team. Kit joined the team with an extensive background in Legal and Editorial Publishing.

Information within Breast, Gynaecology, Haematology, Head and Neck, Lung, Patient Involvement and Upper Gastrointestinal sections of the website have all been reviewed over 2018-19 and updated. Kit has devised a schedule to review the remaining sections of the website over the coming months and annually thereafter.

Discussions are now underway to look at revised hosting arrangements for the SCAN website due to changes with the current arrangements. The SCAN website attracts a large volume of interest from a UK and international audience. The vast majority of people are located in the United Kingdom however there were also 32 users in the United States, 10 in Australia, other European countries as well as the following cities: Lagos (Nigeria), Jakarta (Indonesia), Nairobi (Kenya), Moscow (Russia), Montego Bay (Jamaica) and Kuala Lumpur (Malaysia).

The average monthly usage is 3,500 individual hits with 30,000 page views. The site remains most sought after by people looking for directions, which are most likely patients, however the cancer information pages are being used far more since the addition of signpost links on the travel pages.

Helen Taylor
SCAN Patient Involvement Manager

7. SCAN Tumour-Specific Groups

SCAN is responsible for developing effective strategic healthcare plans to meet the needs of the people with cancer in the South East of Scotland and beyond, including meeting specific targets, co-ordinating the modernisation of the services and provision of services which promote equitable access for all members of the community.

The SCAN Tumour Specific Groups are the core hub of activity to enable the Cancer Network to achieve deliverables as set out in the Cancer Strategy. The Tumour Specific Groups include clinical experts from various professional groups and management colleagues involved in the delivery of cancer services. There are nine tumour groups which have representation from each of the four SCAN boards.

The following reports have been provided by the SCAN Tumour Specific clinical leads to reflect key achievements, actions and priorities going forward:

7.1 Breast Group – Chair Mr Matthew Barber

During this reporting period the SCAN Breast Group has made progress in numerous areas. This includes an audit and review of GP referral criteria, which has been revised on RefHelp. The Breast Team have developed a standard regional Breast screening programme and a pathway for those patients at a higher risk of Breast Cancer as a result of prior radiotherapy.

Recurrence data has now been updated from 2007 and survival data has been updated from 2012.

Progress has been made with workforce with two new surgeons and two radiologists appointed in NHS Lothian, which will provide more flexibility and capacity in NHS Lothian. There however is a need to look across the Network as a whole to ensure equity of service delivery across the Region.

Waiting times for patients are still challenging across SCAN, however concerted efforts are helping to manage these.

The priorities for the SCAN Breast group going forward are to have a functioning breast screening audit system, improve co-operative working across the SCAN region, establish a vacuum assisted large volume biopsy service and oversee provision of breast services at the Western General Hospital as part of the Edinburgh Cancer Centre reprovision work.

Following the retirement of Mr Glyn Neades, Mr Matthew Barber has been appointed SCAN Breast Clinical Lead as of March 2019.

7.2 Colorectal Group – Chair Mr Satheesh Yalamarthy

The SCAN Colorectal Group hosted an education event on 8 September 2017, at the Scottish Health Service Centre, Western General Hospital. The day was a great success and included a new format with a discussion panel, which ran very well.

Further achievements from the SCAN Colorectal Group include the development and approval of regional policies for the management of early rectal cancer and polyp cancer.

Progress has been made within Primary Care with qFit testing now being available in NHS Fife and NHS Borders. Going forward the group would like to see this expanded to also include NHS Dumfries & Galloway and NHS Lothian.

The group continues to liaise with the SCAN Team to develop and update the SCAN Website. Clinical Nurse Specialists are working to update the patient information leaflets and information available to patients on the website.

Performance on the Colorectal Quality Performance Indicators (QPIs) has been very good within the SCAN Region and while some QPIs still require further work, gradual progress is being made. The formal review of the Colorectal Cancer QPIs is scheduled for December 2019.

The SCAN Colorectal Group has several priority areas over the next 12 months and this includes starting a trial of fully integrated electronic treatment summaries across the SCAN region.

Another priority area is to support the development of a Rectal Cancer Intensity Modulated Radiation Therapy (IMRT) service in NHS Lothian, including the resource requirements to achieve this. In addition the group would like to investigate the potential of a robotic platform for colorectal surgery in NHS Lothian. Finally the group would like to review nurse-led clinics with a view to streamlining this process and the patient pathways.

7.3 Gynae Group – Chair Mr Cameron Martin

The Gynaecology Tumour Specific Group have had another excellent year. The Comparative QPI report demonstrates that the Region is performing strongly in all areas and demonstrates excellent collaborative regional working. We have strengthened our team with new appointments in radiology, pathology, medical oncology and surgical services.

Five years ago we established the first Scottish Complex Pelvic Service (CPS); a unique collaboration of medical/clinical oncology and urological/colorectal/gynaecological survival specialities with a central CPS MDM to discuss and plan challenging cases. Recently, funding from ISD allowed a comparative Scottish assessment of surgical outcomes and in particular survival from advanced ovarian cancer. We are delighted that as a team we have seen a dramatic frame shift in surgical resection rates and together with medical oncology treatments (which includes a number of trials), are for the first time seeing an improvement in survival rates.

The Edinburgh Cancer Centre is driving a path to offer treatment to rival the best European centres. Recent involvement with the hepatobiliary team at the Royal Infirmary of Edinburgh has enabled us to offer selected patients more radical upper abdominal surgery including hepatic resections and diaphragm stripping. The additional benefit of the CPS is the ability to plan and discuss patients with recurrent disease and we have noted an increase in our operative rates in these patients. The clinical oncology team continue to offer tailored treatment following successful introduction of lymphadenectomy for endometrial cancer

patients and through careful selection, we hope that this approach will limit treatment side effects.

We have a strong focus on fertility conservation in young patients and in November are hosting a national meeting to develop protocols further. We now offer fertility conserving cervical cancer surgery for selected patients who hitherto meant a long journey to London for patients and families.

We also have a portfolio of clinical trials open to patients across the region.

The coming year will see further new surgical appointments and a new cancer tracker. We need to ensure that there is no regional variation in care and although we have locally agreed pathways, it is essential that these continue to compliment regional targets. Our dedicated team is committed to continue to establish Edinburgh as a leading UK gynaecological cancer centre.

7.4 Haematology Group – Chair Dr Fiona Scott

Significant improvement in access to MYC testing has been achieved in lymphoma diagnostics in SCAN between 2017- 2019. (*MYC is a type of gene commonly present in some types of malignant neoplasms, including some B-cell lymphomas. The MYC gene levels help clinician's diagnosis and treat patients with this type of lymphoma*). SCAN has also undertaken a review of the format of our weekly regional Multi-Disciplinary Meeting (MDM) and modifications have been made.

Reasonable performance has been made across the Region regarding Acute Leukaemia and Lymphoma Quality Performance Indicator (QPI) standards. Access to Macmillan funding has been granted to support an ongoing frailty project in elderly patient(s) with lymphoma. Progress has also been made around workforce with improved consultant staffing levels in NHS Fife and NHS Borders.

National protocols have been updated for Hodgkin lymphoma and Follicular Lymphoma. In liaison with the Breast Team we have developed a standard regional Breast screening programme and pathway for those patients at a higher risk of Breast Cancer as a result of prior radiotherapy.

Challenges continue with access to Radiology services, specifically for supporting the weekly MDM meeting. Workforce challenges are also present in Clinical Nurse Specialist support across the Region as well as access to clinical trials nurses.

CAR-T Cell Therapy will be one of the main priority areas for the SCAN Haematology group moving forward and the group aims to develop and implement a patient pathway with the Beatson Cancer Centre in Glasgow.

Other priority areas over the next 12 months include improving access and support for clinical trials, a review of Clinical Nurse Specialist support across the Region and MDM co-ordinator support for the cutaneous lymphoma meeting.

7.5 Head & Neck Group – Chair Mr Iain Nixon

Over the past 12 months there have been significant changes in the head and neck team. One of our Oncologists has been replaced with more time allocated to head and neck in their job plan.

Progress has been made in clinical trial recruitment led by Dr Srinivasan who has opened a number of major clinical trials with more in the pipeline.

QPI data collection has been addressed with the appointment of a substantive member of the team who will collate QPI data going forward.

The Multi-Disciplinary Meetings (MDM) have been streamlined with an oncology chair and review of the MDT structure to improve efficiencies.

The governance structure of the team has been improved with 6 monthly MDT business meetings as well as morbidity and mortality discussion and ratification of an Standard Operating Procedure based on the UK Head and Neck Cancer Guideline.

New Clinical Nurse Specialist support has been provided both in NHS Lothian and Fife with appointments at both sites.

A new member of the pathology department has been recruited with an interest in head and neck cancer.

A new technique has been introduced – sentinel lymph node biopsy – championed by Thomas Handley (Maxillofacial Consultant) which remains in its introductory phase but has the potential to offer treatment with reduced morbidity to patients with oral cavity cancers.

A working group, led by Kirsty McLachlan, SCAN H&N group Deputy Chair and Lead Speech & Language Therapist in NHS Lothian is looking into developing a treatment summary document for head and neck cancer patients. Currently, templates of the document are being drawn up and the next stage will be to pilot these.

Nadine Hare (Speech and Language Therapist) has been involved in an Experience Based Co-design study looking at patient experience with a group of patients who have undergone laryngectomy surgery. Nadine will be presenting this work at a future SCAN meeting.

A change in referral pattern in NHS Fife has led to maxillofacial patients being referred from NHS Fife to Tayside rather than NHS Lothian for definitive treatment. This has reduced the number of patients seen and slightly altered the practice patterns locally.

Due to a vacancy in the audit team our group has not reported QPI data for 2 consecutive years. Although this is being addressed retrospectively it is likely that clinical data from this period will be of lower than expected quality.

Significant work has been put in to arranging for the MDT clinic to transfer to St John's Hospital from the Cancer Centre at WGH, although progress is slow.

Speech and Language Therapy (SLT) have identified an inequality in delivery of SLT pre-treatment across SCAN. The SLT sub-group are working on solutions to address this.

In September 2017 a SCAN study day was held with international speakers. 6 hours of CPD was provided for around 70 registered delegates. Feedback for this event was extremely positive and the session was recorded for Royal College of Surgeons educational purposes to be made available on their website.

In the course of the financial year, 22 patients were recruited to interventional clinical trials. As the current QPI data is incomplete we do not have a denominator but this is approx. 10%. The QPI target is 7.5% interventional and 15% translational.

7.6 Lung Group – Chair Dr Melanie Mackean

Over the past two years the SCAN Lung Group have overseen the development of the Endobronchial Ultrasound network now on two additional sites, Western General Hospital and NHS Fife, the former examining patients the latter commenced the service in September 2018. This will expedite and simplify the patient's journey through the staging of their lung cancer.

Continuing multi professional QPI data review now includes a formalised annual meeting. Many data items are being met, others however remain of varying challenge.

We are actively reviewing post-curative therapy follow up aiming to minimise routine hospital attendance, hence maximising opportunity for clinically indicated review.

Deliverables for the group include PDL1 (*a protein in the body that helps keep immune cells from attacking non-harmful cells in the body and helps doctors determine whether a patient is likely to benefit from cancer drugs known as immune checkpoint inhibitors*) testing and treatment and more individualised treatment options are expected within the next 12 months.

Challenges within the service still remain around workforce and staff gaps and capacity across specialities and boards in the region, specifically interventional Radiotherapy and Clinical Nurse Specialist support.

The priorities for the group over the next 12 months include the follow up of active treatment, a review of patient information, completion of an MDT review and succession planning.

The SCAN Lung Group has also undergone a change of Chair with Colin Selby stepping down as Chair in February 2019. Dr Melanie Mackean has since been appointed as SCAN Lung Chair and will lead the group from April 2019.

7.7 Skin Group – Chair Dr Megan Mowbray

Achievements: Melanoma QPI results are discussed annually at the National skin cancer meeting, SCAN results are comparable to those of other regions. Improvements have been made in attainment of the melanoma QPIs across SCAN, with them now embedded in clinical practice, with awareness of requirements. 9 of the 11 melanoma QPIs either meet the target or are tolerated as they don't meet the target but with no detriment to patient care.

Dr Megan Mowbray and Dr Lorna Bruce have been actively involved throughout 2018 in the 3-year review of the melanoma QPIs. A final document was distributed for public review and comment in July 2018.

The high risk non-melanoma skin cancer MDM was established in September 2015. The meeting runs on a fortnightly basis with attendance/ input from the following specialties: Dermatology, Plastic Surgery, Radiology, Oncology, Clinical Nurse Specialists, MDM Co-ordinator and Pathology. Referrals are also accepted from NHS Fife, Borders and D&G for regional MDM discussion. The number of, and complexity of, patients discussed has increased since the establishment of this MDM.

Patient information leaflets on the SCAN website have been reviewed and updated. A new sentinel node biopsy information leaflet has been written and awaits final adjustment following consultation.

Two Detect Cancer Early initiatives took place in SCAN: 1) Lothian – analysis of GP referrals of melanoma patients. 2) Fife – GP/NP teaching project in the assessment and management of skin lesions. Evaluation of both projects is in progress. The Lothian and Fife teams are working together to learn from each other and progress achievements locally, regionally and nationally.

SCAN hosted the Annual Scottish Skin Cancer Meeting in March 2019 at the Royal College of Surgeons of Edinburgh. The event was very successful and attended by over 120 individuals from a number of specialities including Dermatology, Oncology and Plastics. The morning session of the meeting was focused on reviewing and discussing the QPI results across Scotland. The afternoon sessions were broken up into Surgical, Oncology & Pathology sessions and a Tumour Board session to end the day.

Challenges: SCAN does not meet melanoma QPI 4 with attainment of 45%, but the target is 95% of patients will have examination and documentation of draining lymph node basin. The reason for not meeting this is in the documentation of this procedure. An 'aide memoire' has been introduced into SCAN pathology forms to encourage and assist clinical documentation going forward.

SCAN does not meet melanoma QPI 7 with attainment at 63%, but the target is 95% - all cutaneous melanoma should undergo Wide Local Excision (WLE) within 84 days of diagnostic biopsy. This is a target which should be achievable however it involves a number of steps in the pathway (pathology, dermatology, MDM discussion, plastic surgery), timely progression along this pathway requires a full team of staff and an effective system whereby delays are highlighted early.

We have sadly lost our melanoma MDM co-ordinator (Mrs Pam Muir). Pam has been integral to the smooth running of the MDM and the melanoma patient pathway. Over the years her job evolved such that she was working as a care pathway manager in addition to co-ordinating the MDM.

We estimate that 98% of all high risk cutaneous Squamous Cell Carcinoma in NHS Lothian is captured and discussed. The joint cutaneous oncology clinic which has consultant representation from oncology, plastic surgery and dermatology, along with a CNS, follows

the MDM. There has been an increase in the number of protected clinic slots in plastic surgery so that appropriate patients can be fast tracked into these clinics.

Radiology - The absence of radiology input is a significant clinical issue, with complex cases discussed at MDM without a radiology presence. This can result in delays in patient management. These cases were historically discussed at the head and neck MDM which does have radiology support.

Responsible Consultant - The responsible Consultant or a deputy that knows the patient should attend the MDM to present and give further information, but this doesn't happen routinely. This is a problem for complex cases as the MDM is unable to give an appropriate opinion.

Delays in treatment - Although the 62-day target does not apply to cutaneous SCC, this is a standard to aim for as this target is applied to patients when managed through the head and neck MDM.

Deliverables: Successful implementation of the roles of dermatology and plastic surgery skin cancer link nurses as substantive posts in NHS Fife. Attendance at a melanoma workshop in Maggie's Fife is now recognised as part of the standard care pathway for melanoma patients in NHS Fife.

The development of an updated melanoma QPI document, dataset and measurability document which is more clinically relevant than previously.

7.8 Upper GI Group: Chair Mr Peter Lamb – combining Oesophago-Gastric and HepatoPancreatoBiliary Cancer

Oesophago-Gastric: Mr Peter Lamb

In November 2018 SCAN hosted the National Oesophago-Gastric meeting at the Royal Infirmary of Edinburgh. The meeting was very successful and focussed on reviewing and discussing the QPI results across all three Scottish regions. The meeting also focused on national survival analysis.

Developments in the OG services now include a regional MDT meeting which includes all four health boards in SCAN, and the appointment of a clinical nurse specialist to NHS Borders.

Patient Involvement has also progressed in the last two years. An OG patient group has been established and meets every three months at Maggie's in Edinburgh.

The group has a number of priorities going forward and these include the need for additional Clinical Nurse Specialist Support, the timely availability of PET, and improved nutritional assessment and access to dietetic support.

HepatoPancreatoBiliary (HPB): Ms Anya Adair

The number of primary Hepatobiliary cancer cases referred into the MDT services within SCAN continues to increase year on year.

We have again successfully met the target for many QPIs. Others require further progress and this is something we will address and attempt to improve.

This year NHS Lothian and NHS Fife collaborated to improve primary pancreatic cancer and Hepato-Cellular Carcinoma pathways for patients within Fife, and develop the referral pathways into the NHS Lothian MDT.

The HPB MDT in NHS Lothian with the help of our MDT Coordinators are working hard to improve distribution of MDT outcomes to referring centres and among other things have introduced an electronic MDT outcome on the day of discussion to referrers who have provided contact details.

We continue to strive to improve the referral process into service and the distribution of outcomes from the meeting.

This year we appointed two new HPB consultant colleagues in NHS Lothian one of whom is trained in Endoscopic Ultrasound which will help with the demands on this service.

We continue to actively participate in the Scottish HepatoPancreatoBiliary Cancer Network. The last Scottish HepatoPancreatoBiliary Network (SHPBN) Educational network meeting was held in Perth in December 2017. We presented our results at the national morbidity and mortality meeting held in Glasgow in June 2018.

Following her appointment to National HPB Lead for Scotland, Anya Adair has stepped down as HPB Lead for SCAN. Mr Andrew Healey has been appointed to the SCAN HPB Lead role in March 2019 and will also take on the role of Deputy Chair of the SCAN Upper GI Group going forward.

7.9 Urology Group – Chair Mr Alan McNeill

The progress achieved by the SCAN Urology Group between April 2017 and March 2019 includes a redesign of the raised Prostate-specific antigen, or PSA, pathway in SCAN. PSA is a protein produced by normal, as well as malignant, cells of the prostate gland and levels are measured with a blood test.

Progress was also achieved in Multiparametric Magnetic Resonance Imaging (MRI) Reporting in NHS Dumfries & Galloway where NHS Lothian provided a service to cover reporting in the short term.

Workforce challenges remain a key issue within the service and this includes the ambition to establish a quorate team of robotic prostate surgeons in NHS Lothian. Workforce challenges are also being reported within the Pathology service.

The SCAN Urology Group was only able to meet once in 2018 due to a change in leadership. Mr Prasad Bollina stepped down as SCAN Urology Chair in April 2018 after successfully leading the group for 10 years.

In August 2018 Professor Alan McNeill was appointed SCAN Urology Chair and held his first meeting in January 2019 where progress towards Partial Robotic Nephrectomy and Diagnostic Pathway for Prostate Cancer were discussed.

There is also a dedicated education meeting for salvage treatment post-primary treatment for Prostate Cancer, which aims to develop a best practise pathway for SCAN planned for August 2019.

The priorities for the SCAN Urology Group over the next year will include looking at the diagnostic pathway for prostate cancer across the region; this will include a review of pre-biopsy MRI and the role of template and transperineal biopsy.

The group will also look to support the implementation of robot-assisted partial nephrectomy for renal cell carcinoma.

7.10 Primary Care Group (PCG) – Chair Dr Neil Pryde

The SCAN Primary Care Group is co-chaired by Neil Pryde (Lead Cancer GP, NHS Fife) and Murdina MacDonald (Lead Cancer Nurse, NHS Fife). The function of the group is to highlight and promote cancer issues impacting on Primary Care, and the interface with Secondary Care. The PCG monitors regional and national initiatives, and works to achieve an integrated approach by liaising with all the SCAN tumour-specific groups. The Chair of the SCAN PCG, or a deputy, sits on the Regional Cancer Planning Group. There is representation from the PCG on the Scottish Primary Care Cancer Group, where colleagues from across the country network and influence national issues and initiatives.

The four Board Lead Cancer GPs are each allocated responsibility to liaise with tumour-specific Groups in SCAN, with a commitment to attend their meetings and report issues back to the PCG:

- Dr Maude Donkers (Borders) – Head & Neck and Urology
- Dr Fiona O'Brien (D&G) – Skin and Lung
- Dr Lorna Porteous (Lothian) – Breast and Gynaecology
- Dr Neil Pryde (Fife) – Colorectal, Haematology and Upper GI

Since the last annual report in 2017 the SCAN Primary Care Group has had a variety of different guest speakers attend the group including: Iain Nixon, Chair of the SCAN Head & Neck Group, Robin Grant, Neurologist, Peter Lamb, SCAN Upper GI Group Chair, Emma Childs and Glyn Neades to discuss an audit of GP referrals to the Edinburgh Breast Unit and Liz Preston, SCAN TCAT Clinical Lead to update the group on the final stages of the TCAT Programme.

The main areas of progress over the last two years in Primary Care include the publication of the refreshed Scottish Cancer Referral Guidelines. The group have also liaised with the RefHelp team in NHS Lothian with the aim to have an updated RefHelp system across the region, specific to each Health Board.

Another development in Primary Care in SCAN is all GP Surgeries in NHS Fife having qFit testing kits and it is being used for more urgent cases.

GP access to Radiology remains an item on the group agenda going forward into the next year. The group will also continue to support the implementation of Treatment Summaries across tumour groups in SCAN and await the result of planned trials in Head & Neck.

Another aim for the group is to increase the amount Primary Care input into the Regional Cancer Centre Re provision project, which is currently underway in NHS Lothian.

GP education also comes under the remit of the SCAN Primary Care Group and the group are planning to organise a GP specific Cancer Training Course in Edinburgh for late 2019.

8. Specialist Oncology Services

8.1 Regional Cancer Centre Development

The Western General Hospital is the Regional Tertiary Centre Cancer Hospital for South-East Scotland, incorporating breast, urology and colorectal surgery. Cancer Services are currently provided in out-dated infrastructure that no longer meets the needs and expectations of modern healthcare and prevents the service from adapting to meet the growing demand.

This has been acknowledged by Scottish Government approving the Initial Agreement for Oncology Enabling, a programme of work which will address current issues and allow a sustainable service to be provided until a new Cancer Centre can be built.

The longer term vision is the “*development of a world class specialist cancer centre and service on behalf of the region – and nation*” through re-provision of the Regional Cancer Centre at the Western General Site by 2025.

A new Cancer Centre will:

- Be recognised as a world leading centre for cancer research, innovation and clinical academic opportunities;
- Support a response to rapidly increasing demand and increasing incidence of cancer across the South East of Scotland;
- Provide the physical space required to deliver, safe, effective and high quality services;
- Fulfil the need to deliver new models of care for changing needs;
- Develop the workforce, retain and recruit staff and develop further multi-disciplinary working;
- Allow technology to be shared and developed.

8.2 Enabling work

The purpose of the Oncology Enabling Outline Business Case (OBC) is to seek approval to upgrade the oncology facilities at the Western General Hospital (WGH) in order to provide a sustainable service for the next 6 years, by which time it is hoped that the full re-provision of the South East Scotland Specialist Cancer Centre will have been approved and completed.

It is recognised that the Edinburgh Cancer Centre as a whole does not meet modern standards and needs to be re-provided as a matter of priority. However, in view of uncertainty of agreement and a timescale for the development of a new South East Scotland Cancer Centre, four critical areas within the existing Edinburgh Cancer Centre (ECC) were prioritised as most in need of urgent upgrade to maintain safe service delivery until the opening of a new Cancer Centre:

- i. Expand day case Systemic Anti-Cancer Therapy (SACT) Service (Ward 1);
- ii. Improve the health environment in 3 inpatient wards (Wards 2, 3 and 4);
- iii. Develop a new fit for purpose Cancer Assessment Unit (CAU, was previously OAA) and;
- iv. Increase Linear Accelerator Bunker Capacity and re-provide office accommodation.

Each of these areas has been reviewed separately to identify the key risks and issues for urgent attention. This has enabled the development of solutions required urgently to improve the health environment and maintain a safe clinical service. The review only forecasts requirements to 2026 and the requirement for essential investment has been identified in all areas in order to provide a solution viable until that time.

Progress to date:

- A workshop was held for each clinical service area and a proposed Cancer Centre Model has been developed;
- A series of 'Principles, Dependencies and Assumptions' were developed and circulated widely for discussion and agreement;
- The workshop outputs, model and 'Principles, Dependencies and Assumptions' have been circulated widely and discussed in various forums;
- Meetings have been held with key representatives from Boards to discuss future service provision.

The funding for the Oncology enabling works is still to be agreed by Scottish Government and the NHS Lothian Cancer Centre team is working closely with government colleagues and SCAN Health Board partners on the business case, prior to submission to Scottish Government in 2020.

9. Systemic Anti-Cancer Therapy (SACT)

9.1 Safe Administration of Systemic Anti-Cancer Therapies Audit - Chief Executive Letter (CEL 30 2012)

Healthcare Improvement Scotland (HIS) revised the National SACT Governance Framework in August 2018 with all staff involved in audit undertaking training in the revised Framework arrangements. Teams benefited from working through realistic scenarios, sharing learning and engaging in multi-professional discussions.

The SCAN Health Boards are due to initiate the SACT self-assessment process in the autumn of 2019, and the new three year cross regional audit cycle (with external reviewers) due to commence in 2020.

10. Radiotherapy

The continued development of new and enhanced treatment techniques at the Edinburgh Cancer Centre (ECC) means more patients benefit from modern radiotherapy which aims to improve rates of tumour control whilst minimising toxicity to other surrounding tissues. The Centre benefits from the continued investment of the Scottish Government which ensures the fleet of treatment machines can deliver such techniques with the required accuracy and precision.

Key developments at the ECC include:

10.1 Treatment Machines

A medical linear accelerator (LINAC) is the device most commonly used for external beam radiation treatments for patients with cancer. It delivers high-energy x-rays or electrons to the region of the patient's tumor.

In 2018 as part of the National Radiotherapy Linac replacement programme the newest technology Truebeam™ Linac came into clinical use. Truebeam gives the capability to adjust the patient position in each direction and for rotations, enabling the teams to account for day-to-day changes in patient positioning. ECC now has 4 Truebeams™ and 5 out of our 6 Linacs have couches which allow movement in 6 degrees of freedom. The superficial/orthovoltage machine which uses low energy x-rays to deliver treatment to skin lesions will be replaced towards the end of 2019.

10.2 Imaging

Computerized tomography (**CT scan**) combines a series of X-ray images taken from different angles around the body and uses computer processing to create cross-sectional images (slices) of the bones, blood vessels and soft tissues inside the body. **CT scan** images provide more-detailed information than plain X-rays are able to.

Both the CT scanners in the ECC will be replaced in 2019-2020 as part of the Scottish Government replacement programme. Plans are being developed to ensure that disruption to service delivery is minimised during the replacement process.

Greater access to Positron Emission Tomography (**PET scan**) and Magnetic Resonance Imaging (MRI) for radiotherapy planning purposes is currently being pursued on local and national levels.

10.3 Radiotherapy Capacity Planning

Capacity and demand for radiotherapy at the ECC is continually analysed and monitored with planning underway for extending the working day and replacement of linear accelerators in order to sustain service delivery.

Until the start of 2019, we were able to maintain service delivery on 6 Linacs without extending the department working day. However the impact of a continued increase in the requirement for radiotherapy and the increasing complexity of treatment delivery techniques (meaning that the appointment times required are longer) have resulted in the need to increase the working day for several periods this year to accommodate fluctuations in capacity. Due to continued increases in demand and introduction of new techniques (see below), we are planning on how to sustain and expand the existing service to accommodate this.

10.4 Intensity Modulated Radiation Therapy (RapidArc)

Continuing expansion of the use of RapidArc now means that any patient who would benefit from this technique will receive it for all types of cancer and there are plans to continue to expand use of RapidArc in Rectal and Upper GI Cancers in 2019/20.

10.5 Breast Radiotherapy

Deep Inspiration Breath Hold (DIBH) technique commenced in July 2017. For DIBH treatment, patients take a deep breath in and hold that position while the radiation beam is on. This technique helps to reduce the dose to the heart in patients receiving radiotherapy. This technique was agreed as a new national quality performance indicator standard in early 2019, therefore the service is planning how to expand the existing service with the aim

to introduce DIBH for all breast patients in 2019/20. This has a significant impact on the service due to the large number of breast patients treated with radiotherapy.

10.6 Stereotactic Ablative Radiotherapy (SABR)

Following the introduction of a second linear accelerator (Linac) capable of delivering very high precision treatment to small lesions – Stereotactic RadioSurgery (SRS) - the radiotherapy team has established a National Specialist Service for patients with Benign Conditions from across Scotland.

Earlier this year, ECC became one of only 2 centres worldwide to be successfully awarded recertification under the Novalis Certified™ programme. An interdependent group of experts has certified compliance against the Novalis Standard (v.1.0) for delivery of Stereotactic Radiosurgery and Stereotactic Body Radiation Therapy, assessing organisational, personnel & technology requirements and quality assurance programmes.

10.7 Stereotactic Ablative Radiotherapy (SABR) & Stereotactic Body Radiotherapy (SBRT)

SABR was introduced in the cancer centre in 2013 for lung cancers providing a high dose of radiation to small primary tumours in preference to larger doses. This has been expanded to include oligo-metastatic lung patients in 2019. SBRT techniques have also been introduced for prostate cancer patients in 2019 as part of a research study with the introduction of new equipment to monitor the position of the prostate during treatment – Raypilot™. Multidisciplinary teams are currently working up solutions to deliver SBRT for metastatic tumour sites, including bones, lymph nodes, lung and abdomen.

10.8 In-Vivo Dosimetry

The ECC has continued and expanded the capability to measure the radiation dose received by a patient during treatment. Recent developments in In-vivo Dosimetry have included in-house software for measuring palliative patient treatments using the same measuring device as radical patients.

10.9 Clinical Trials

The ECC has entered patients in an increasing number of Clinical Trials involving Radiotherapy in head and neck, prostate, breast, bladder, oesophagus, brain, rectal and lung cancers.

Two new posts have been funded through the Cancer Strategy monies – a Clinical Trial Specialist Radiographer and Clinical Technologist in Treatment Planning – to increase participation in Clinical Trials involving radiotherapy. These staff members are working with the Research Physics Professor and Research Radiographer to sustain and enhance research and development in radiotherapy.

10.10 High Dose-Rate (HDR) Brachytherapy

Plans for setting up an HDR service for prostate patients are currently in development. This requires access to theatres and associated staff and appropriate patient pathway design in order to facilitate this. This will complement the current LDR and radiotherapy services to enable ECC to improve the prostate cancer pathway for patients with low, medium and high-risk tumours.

10.11 Paediatric Radiotherapy

There have been regional and national challenges to the sustainability of Paediatric Radiotherapy Oncology services in the 2 Scottish centres - NHS Greater Glasgow & Clyde and NHS Lothian. Both centres have a single handed Oncologist, with a limited pool of specialist paediatric nurses and physicists.

The National Managed Service Network for Teenagers and Young Adults is facilitating discussions between the centres with a view to develop a resilience plan to cover staff leave and sickness absence, business continuity model, sustainability of services across both sites and to ensure the safest model of delivery for young patients in Scotland.

10.12 Peer Review

The Royal College of Radiologists Peer Review guidelines were published in August 2017 and ECC has continued to work towards implementation of these for all tumour sites. Following the refurbishment of the Oncology Physics Seminar Room in June 2019 a programme is in place for each clinical team to review cases including participation of other centres in Scotland if required.

10.13 Quality Management - Documentation

ECC has recently purchased the QPulse(TM) system for document management. QPulse is used by all the radiotherapy departments in Scotland and is widely used by other departments in NHS Lothian, and the rest of the UK. This will replace parts of the current OOQS system (Oncology Online Quality System) and is due to be piloted for radiotherapy documentation before being rolled out for SACT.

10.14 Challenges - Radiotherapy Data

The National Radiotherapy Sub Group of the National Cancer Clinical Services group is working with Public Health England to provide analysis & benchmarking of Scottish radiotherapy data. The contract for the work and data agreement is ready to be signed off, however there are still some details to be addressed regarding transfer of data to and from PHE to Scottish Cancer Registry & Intelligence Service. This will provide Scotland with the opportunity to benchmark clinical practice against other centres in the UK.

10.15 Workforce

Challenges with recruitment and retention of specialist staff in all disciplines continue with workforce planning underway both at a national and local level. Radiotherapy pathways are also impacted by workforce challenges and pressures in other disciplines such as radiology and laboratory services.

Linda Carruthers

Head of Oncology Physics on behalf of the Radiotherapy Management Group

11. Pharmacy Network

The SCAN Pharmacy network is a collaborative group led by the *Associate Director of Pharmacy (NHS Lothian Acute & SCAN) with dedicated time in the job plan* to the specialist oncology and haematology pharmacists from across the region. The group meets 3-4 times a year to develop regional models for service delivery, align practice, consider service improvement initiatives, provide peer support and share good practice.

11.1 SCAN Tumour group's pharmacy representation

Members of the ECC pharmacy team are named contacts for SCAN Tumour Specific Groups who support development and updates of Master Prescription Charts, Clinical Management Guideline's etc. The SCAN Pharmacy group are currently exploring broader representation from across all the SCAN Boards to support these processes.

11.2 SCAN Capacity Tool

Pharmacy workforce task analysis was undertaken by pharmacy services from each SCAN Board to support the development of the SCAN Capacity Tool as per the SACT Advisory Work Programme. This capacity tool is currently in the validation stage.

11.3 SACT Protocol Template

The Healthcare Improvement Scotland Systemic Anti-Cancer Therapy Delivery External Audit report in 2017 made the recommendation:

"Some standards, for example the development of SACT protocols, are time and labour intensive and require clinicians to take time away from direct patient care. The increasingly rapid pace of change in treatments further increases the requirement for regular review and updating of protocols. Cross-regional collaboration would be beneficial going forward and the expert review group has made a specific recommendation for a shared approach to SACT protocols. (See Standard 2)"

This recommendation aligned to the work plan of the Scottish Oncology Pharmacy Group (SOPPG) and a subgroup was established to develop a draft protocol template for use in cancer services across Scotland with input from all Health Boards. The template was reviewed and approved by all the regional Cancer Networks and was implemented in 2018.

The national SACT template allows Cancer Networks to share the work to develop and update SACT protocols. All Regions are utilising the template but some governance issues for sharing information remain.

11.4 Peer Approved Clinical System Tier 2 (PACS 2)

In November 2017 the Scottish Government introduced new guidance for PACS Tier Two process which replaces all previous guidance on Individual Patient Treatment Requests. It is designed to provide an opportunity for clinicians, on a "case by case" basis for individual patients, to request to use a medicine (other than ultra-orphan) that:

- is a licensed medicine and has an indication that has been considered and not recommended for use in NHS Scotland by the Scottish Medicines Consortium (SMC) or;
- is a medicine out with SMC restrictions or;
- is a medicine which is awaiting evaluation by the SMC or;
- is a medicine which has been a non-submission to the SMC.

The process was updated to include refreshed decision criteria, clearer accompanying guidance and the establishment of a National Appeal Panel to enhance consistency in decision making processes across the country. SCAN has agreed a process for NHS Lothian to act as the host Health Board to assess all cancer service PACS2 applications in collaboration with the other 3 SCAN Boards.

11.5 National Pharmacy Aseptic Dispensing (NPAD) Programme

A new collaborative service model for pharmacy aseptic dispensing has been developed with planning and co-ordination of the service to be provided nationally with service delivery taking place at a regional/ local level. A revised configuration of aseptic units is planned with pharmacy aseptic dispensing services to be provided from 13 rather than 21 units, located in 10 Health Boards.

The model will be enabled by a number of projects aiming to standardise elements of service delivery and address challenges around workforce and contingency. This new service model will be implemented by National Acute Pharmacy Services (NAPS).

The South East region is in the process of conducting staff consultation, assessing service implications, developing actions plans and transition arrangements to meet the recommendations of the National Aseptic Review.

11.6 Cancer Biosimilars

A biosimilar is a medicine that is developed to be highly similar to an existing biological medicine. Biosimilars may have very slight variations from the original, but they work in the same way as the original medicine. They are equally as effective and can be more cost effective to provide. The availability of biosimilars increases competition, which should drive down costs. Fewer clinical trials are needed if it is already known which diseases a medicine works in.

Rituximab is widely used to treat people with non-Hodgkin lymphomas that develop from a B lymphocyte (B cell). All SCAN Boards have now switched to using intravenous biosimilar rituximab with only a subset of patients still receiving subcutaneous rituximab.

Trastuzumab is a targeted cancer drug and is also known by its brand name, Herceptin. It is a treatment for cancers that have large amounts of a protein called human epidermal growth factor receptor 2 (HER2), such as early breast cancer, advanced breast cancer and advanced stomach cancer. The biosimilar only has a license indication for intravenous use, rather than the existing subcutaneous use. All SCAN Boards are in the process of, or have already switched to biosimilar trastuzumab over the course of 2018/19 with the remainder planned in late 2019.

11.7 Models of delivering SACT via community setting

In NHS Lothian pharmacy team in collaboration with primary care and community pharmacy services developed a toolkit and patient pathways to support the oral SACT medicines suitable for safe supply via a community pharmacy or homecare service delivery directly to patients' homes. Commencement of delivery of Abiraterone and Enzalutamide (both oral SACT medicines) via community pharmacy began at the end of June in NHS Lothian. Other identified oral SACT therapies will be assessed in autumn 2019 for supply via medicines homecare delivery. This work has been shared with other SCAN Boards for consideration.

11.8 National Scottish Oncology Pharmacy Practice Group Training Pack

A training pack has been developed in collaboration with pharmacy teams across East, West and North regions via the Scottish Oncology Pharmacy Practice Group. This training pack allows for Scotland wide core competencies for pharmacists to be delivered supporting safe practice for all elements relevant to pharmacy services.

Melinda Cuthbert

Associate Director of Pharmacy (NHS Lothian Acute & SCAN)

12. Scotland Cancer Research Network South East

12.1 Background

The South-East Scotland Cancer Research Network (SCRN) was set up in 2004 with the main function to support and encourage cancer clinicians to deliver clinical trials across all tumour types in order to give patients across South-East Scotland access to the best treatment available. We believe that in order to fully realise the potential for clinical research at the Edinburgh Cancer Centre, recognition of the importance of clinical research needs to be firmly embedded in strategic planning, development and implementation policy for all SCAN health boards. Our vision is to continue to offer the best treatments to patients and to encourage researchers with a strong research background the opportunity to be part of cancer research in the South East of Scotland. To achieve this we have set out five strategic goals we aim to achieve over the time period 2018-2021. This summary provides an update of the strategic goals for the time period April 2018 to March 2019.

12.2 Development of a new Clinical Trials Facility

A new clinical trials facility will help to increase the capacity for clinical trials and in particular will help develop capability for a wider range of early phase (first in man) studies which aren't currently possible. Lothian Capital Investment Group (LCIG) has now supported our application to The Edinburgh and Lothian's Health Foundation (ELHF) for funding to refurbish an area in Ward 1 to provide a new research facility including a Phase I Unit and to develop an area within the Scottish Health Service Centre (SHSC) for Data Management and extended lab facilities. This plan is part of the Ward 1 Refurbishment Plan.

12.3 Increase in clinical trials activity (including Phase I trials and commercial trials)

SCRN has 50.91WTE staff delivering and recording research to patients and receives core funding from the Chief Scientist's Office (CSO) as well as funding from R&D, Cancer Research UK and commercial income.

Overall our activity has risen again this year with increase in recruitment to both Experimental Medicine studies and to Phase I studies. The Local Cancer Units in Fife, Borders and Dumfries and Galloway have again produced good numbers from the limited trials they are able to offer at these hospitals. SCRN have increased the number of commercial trials on our portfolio which has helped to reduce NHS Lothian's drug budget outlay. An estimated figure of £153,000 on drug savings was made in cancer trials in 2018/19.

12.4 Development of new areas of cross-specialty research

Previous cross-specialty research relationships have been established between oncology and interventional radiology and more recently between oncology and cardiology. We recognise the importance of supporting these collaborative studies and aim to develop new research collaborations in the areas of immunotherapy and develop the capacity to expand multi tumour trials and support outlying areas such as surgery and genetics.

The Northern Alliance Advanced Therapy Treatment Centre (NAATTC) was established in 2018 and is a consortium of twenty industry, NHS and academic organisations led by Newcastle Hospitals and SNBTS. NAATTC's vision is to increase patient access to advanced therapy medicinal products (ATMPs) regionally and nationally by growing a cost-effective clinical delivery pathway which meets the needs of the providers of advanced

therapy products. The centre has a patient reach of circa 15 million spanning the North England and Scotland and is working across the two healthcare systems to achieve its key objectives.

12.5 Development of clinical researchers of the future

The oncology department aims to support the application of existing staff members to gain protected time for clinical research through the NRS fellowship scheme. It also aims to provide high quality clinical research training for oncology trainees in order to support the next generation of clinical researchers in oncology.

Between April 2018 and March 2019 two recently appointed consultants were awarded NRS Fellowships and three further consultants were awarded NRS clinician status following successful application through ELHF. This brought the total number of consultants in the department with protected NRS sessions to five in addition to a further five consultants who receive academic funding through the University of Edinburgh to support clinical research. During 2018, academic training meetings have been further developed and all trainees now have an academic mentor to ensure that they receive appropriate training in all aspects of clinical and translational research.

12.6 Development of a more efficient finance mechanism

SCRN aim is to develop a more efficient finance mechanism using the EDGE Database in order to have income and expenditure accounted for in real time and per patient. As part of this development SCRN aim to have our drug cost savings accurately recorded as well. During 2018-19 SCRN secured funding for a 2-year project to take this development forward and are in the process of appointing an EDGE Manager to this role who will work in partnership with R&D Finance to achieve our goals.

12.7 Conclusion

2018-19 has seen consolidation of trial recruitment numbers, maintenance of staff numbers and an increase in protected research time for consultant staff. Significant progress has also been made in the development of improved facilities for clinical research, development of a mechanism for tracking financial aspects of clinical trials activity and development of new collaborative partnerships in clinical research. We acknowledge the significant work of our NHS colleagues in their support of clinical trials and for ensuring that clinical research is firmly embedded in strategic planning, development and implementation policy for NHS Lothian.

Dorothy Boyle
SCRN Network Manager

13. National Cancer Strategy Initiatives

13.1 Cancer Modernisation Funding

In 2017-18 SCAN Boards were invited to submit bids for national funding in support of implementation of the National Cancer Strategy and improvement in SACT, Surgery and Radiotherapy services.

SCAN was successful in securing funding for eleven bids, with all SCAN Health Boards securing funding for projects and one regional bid supported. A total of five proposals are committed to improving SACT services and four to develop surgical services and improve capacity. One bid will be used to support Radiotherapy clinical trials and development in NHS Lothian on behalf of the region.

Funding was secured to support a Project Manager to lead a review of current National Thyroid Cancer services, including benchmarking activity against British Thyroid Association Guidelines and developing recommendations to align clinical practice. Thyroid Cancer services are historically provided by different specialities across Scotland, including Endocrinology, Nuclear Medicine, Oncology and General Surgery. As a consequence there is variation in management and clinical practice leading to potential inequity for patients across Scotland.

A Project Manager was appointed in October 2018, with initial priorities focusing on establishing a Programme Board, and clinical sub-groups and governance arrangements. Reporting is via the Regional Cancer Network structure and the National Cancer Clinical Services Group, with the work due to conclude in 2020.

Please see attached table at Appendix Two for the funding breakdown for 2017/18 regional priorities.

13.2 Cancer Access Standards

There have been a number of initiatives taken forward by Scottish Government over the last two years:

- Review of Cancer Waiting Times
- Refresh of Cancer Managers Forum
- National Endoscopy Plan
- Refresh of Primary Care Cancer Referral Guidelines
- Scottish Access Collaborative
- Review of Pathways and processes in each NHS Board by a specialist advisor to Scottish Government.

The National Review of Cancer Waiting Times Report published in May 2018 noted wide clinical agreement that the Cancer Waiting Times Standards have been integral to driving improvements in performance and patient care. The standards have improved the collection of cancer related data, and efficiency of cancer pathways, allowing comparisons within Scotland and other countries, therefore the retention of CWT standards was supported.

The final recommendations were produced and agreed as a framework for change. Scottish Government established a Cancer Waiting Times Recommendations Group in November 2018 to consider the 24 recommendations produced by the review to ensure sharing of

learning and to embed best practice, with representation from SCAN on this group by the Clinical Lead and Network Manager.

13.3 Transforming Care After Treatment

The Transforming Care After Treatment (TCAT) programme five year partnership between the Scottish Government and Macmillan Cancer Support concluded in 2018. The formal evaluation of the programme was published by Scottish Government and Macmillan in 2019.

Macmillan hosted a National Digital eHealth Learn and Share Event in June 2018, which focused on digital projects designed to develop solutions to enable roll out for TCAT e.g. Holistic Needs Assessment, Treatment Summaries, Patient Portal and Social Care Holistic Needs Assessments that have been developed across Scotland.

In November 2018 Macmillan held a National TCAT conference with the aim to align the aims and ambitions of realistic medicine and provide a demonstration of some solutions to help with progress towards achieving the implementation of realistic medicine that TCAT could enable Health Boards to achieve. Approximately 180 attended the event and a substantial number of resources that have been produced as a result of and through the TCAT programme.

A proposal around spreading the learning of TCAT has been submitted to the Scottish Government by Macmillan Cancer Support and the decision on this is pending in summer 2019. The proposal will also include roll out of the Macmillan Improving Cancer Journey programme.

13.4 Healthcare Improvement Scotland (HIS) - Systematic Anti-Cancer Therapy (SACT)

New National Consent form

NHS Scotland policy on patient consent for SACT has been highlighted as an area with variation in practice with no consistent approach across Scotland. Healthcare Improvement Scotland (HIS) has supported a national review of current practice on consent for SACT, with a revised consent form drafted in collaboration with the UK Chemotherapy Board. The SCAN SACT Consent Form, identified as best practice in Scotland, has been used to shape the revised form which has been sent out to clinical groups for comment. Once the final version has been agreed this will be implemented into clinical practice.

The proposed next steps are to:

- Gain support for implementation of the UK Chemotherapy Board approach to SACT consent;
- Engage with the adult cancer networks to map out requirements and agree timelines for implementation;
- Engage with the Children & Young People Cancer Managed Service Network to consider requirements for children and young people.

National SACT Governance Framework

The revised National SACT Governance Framework was published in August 2018 with supporting tools made available in December 2018. The national SACT Governance Group provides a forum for SACT related issues including SACT Governance Framework implementation, SACT adverse events and future SACT developments. The Governance Group includes clinical, medical, nursing and pharmacy representatives from each cancer network across Scotland.

Moving forward there has been a proposal for a national group to act as a forum to discuss key improvement issues for SACT. Further detail on the group's remit is being worked through by HIS colleagues with a view to establish a group later in 2019.

13.5 National Services Scotland

CAR-T therapy

Chimeric Antigen Receptor T cell (CAR-T) therapies have been clinically recognised as having potential benefit for a limited number of patients. CAR-T therapy delivers a bespoke personalised intervention for the individual patient. T blood cells are taken from the patient and are then modified in a laboratory setting before being reintroduced to the patient. The units designated to provide this service by NHS England all are involved in providing allogeneic stem cell transplant care. Currently the treatment is not available in Scotland; however access to treatment may be possible through the PACS2 process.

When a patient from Scotland is recognised as a potential recipient of a CAR-T intervention it is essential that a clinical consensus has been achieved and funding approval confirmed ahead of the case being discussed at the UK clinical panel.

- At present the number of patients being referred for treatment in the UK exceeds the treatment capacity;
- A Scottish Lymphoma MDT is currently being set up to support the pathway and referral process.

Proton beam

Proton beam therapy (PBT) is an advanced form of radiotherapy that uses a high energy beam of protons rather than high energy X-rays to deliver radiotherapy. PBT directs the radiation treatment to precisely where it is needed with minimal damage to surrounding tissue. In August 2018 The Christie Hospital in Manchester became the first high energy NHS proton beam therapy (PBT) centre in the UK. From 2020 PBT will also be available at University College London Hospitals.

At the moment this service is not available in Scotland but National Services Scotland has service level agreements in place with provider centres, nationally and internationally. There is a clear referral process and pathway from oncology teams, with decisions on referrals for treatment reviewed and approved by the National Proton Panel.

13.6 Scottish Neuroendocrine Tumour Group (SCONET)

Neuroendocrine Tumours (NET) are rare cancers and annual incidence is relatively small yet increasing, however because of long survival the prevalence is amongst the highest. In 2012 a total of 304 patients were diagnosed with NET in Scotland, which is an increase of 65% from 2006. They occur most commonly in the digestive system, small bowel,

appendix, lung and pancreas. NETs present numerous complex clinical problems, principally due to their relatively rare occurrence and patterns of disease presentation.

It was proposed in June 2017 that a 68-Gallium labelled PET scanning service is established at each PET centre in Scotland for all new patients with well differentiated NETs (approx. 80% total NET patients) and those on follow up with a clinical suspicion of recurrence. Imaging may also be useful for serial monitoring and would be considered prior to major surgical resection to exclude widespread metastatic disease. Additionally imaging will be used to select patients for radionuclide therapy. This is estimated to account for 350-400 scans in Scotland per year.

13.7 Gallium Positron Emission Tomography–Computed Tomography (PET-CT) Scans

PET-CT is a key diagnostic service which provides information to allow informed clinical management decisions and targeted clinical care. The primary indication for PET-CT is in staging and re-staging patients with cancer. PET-CT scanning is an established service delivered from four centres in Scotland. These are located in Aberdeen, Dundee, Edinburgh and Glasgow.

PET-CT requires radiopharmaceuticals (“radioactive tracers”) which have been specially designed to bind to a site of interest (such as a biological receptor or a physiological pathway of interest) which can then be imaged and quantified.

The Scottish Health Technologies group has accepted new PET/CT clinical indications (after reviewing NHS England’s guidelines) and the use of Gallium radioactive tracers for Prostate and Neuroendocrine tumours in the NHS Scotland PET/CT Centres.

Additional capital and revenue funding is required to implement the service and Scottish Government agreed to fund this in January 2019. National Services Scotland is working with representatives from all centres on the implementation plan in each of the centres over 2019.

14. Looking forward to 2019 – 2020

This report highlights the regional and local NHS Board work that has been undertaken in partnership from April 2017 to March 2019 to continue to improve care in cancer services in South East Scotland. It identifies the main achievements and also the considerable challenges faced in delivering quality services.

In the year ahead the Regional Cancer Network will continue to drive the changes required, ensuring effective collaboration with patients, carers and stake-holders to ensure equity, reduce variation, using the cancer intelligence data to inform service and quality developments. In addition work with colleagues across Scotland to review and benchmark cancer incidence, mortality, morbidity, outcome data and strive to improve survival, reduce mortality, morbidity and strengthen assurance in quality of services delivered.

The SCAN work plan details the high level aims and objectives for the Network over 2019 – 2021, which are aligned with the National Cancer Strategy: Beating Cancer Aims & Ambitions (2016). This high level strategy is built on the strong foundation of the Tumour Specific Groups, Regional Cancer Planning Group and other SCAN sub-groups work plans.

It has been an absolute pleasure to work in SCAN for the last 12 years and I have been privileged to work with a fantastic network of dedicated, professional and committed clinical and management teams, who deliver way above and beyond their roles to provide the best possible service for their patients. I am extremely proud of everything that has been achieved by the SCAN administration and audit teams during my tenure. However SCAN is not about individuals or teams, the true strength and legacy of SCAN lies in the collaborative nature of the clinical, management and administration teams that pull together in partnership to ensure safety, improve services, deliver against policy, and develops resilience, builds sustainability, all with the patient as the focus and at the centre of delivery.

Kate Macdonald
SCAN Network Manager

South East Scotland Cancer Network
SCAN Office
Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG

Tel: 0131 465 7683

Email: scan@nhslothian.scot.nhs.uk

Website: <http://www.scan.scot.nhs.uk>

15. Appendix One

Glossary of Terms

ASCO	American Society of Clinical Oncology
BASO	The Association for Cancer Surgery
BAUS	British Association of Urological Surgeons
BRCRB	British Red Cross Re-ablement Buddy Service
CEL	Chief Executives Letter
CNS	Clinical Nurse Specialist
CT	Computed Tomography
CYPC	Children & Young People with Cancer
D&G	Dumfries & Galloway
DCE	Detect Cancer Early
DIBH	Deep Inspiration Breath Hold
ECC	Edinburgh Cancer Centre
eKIS	Electronic Key Information Summary
ERAS	Enhanced Recovery After Surgery
G-CSF	Growth-Colony Stimulating Factor
GP	General Practitioner
HCC	Hepatocellular Cancer
HR NMSC	High-risk Non-melanoma Skin Cancer
HNA	Holistic Needs Assessment
IJB	Integrated Joint Board
IMRT	Intensity Modulated RadioTherapy
IPTR	Individual Patient Treatment Request
ISD	Information Services Division (Scottish Government)
MDM/T	Multi-disciplinary Meeting/Team
MRI	Magnetic Resonance Imaging
MSN	Managed Service Network
NCA	North Cancer Alliance
NCCSG	National Cancer Clinical Services Group
NHS	National Health Service
NLCA	National Lung Cancer Audit
OG	Oesophageal
OMFS	Oral Maxillo Facial Surgery
OMMC	Oncology Medicines Management Committee
OT	Occupational Therapist
PACS	Peer Approved Clinical System
PET	Positron Emission Tomography
PCG	Primary Care Group
QA	Quality Assurance
QPI	Quality Performance Indicator(s)
RCAG	Regional Cancer Advisory Group
RCPG	Regional Cancer Planning Group
RCT	Randomised Control Trial
RHSC	Royal Hospital for Sick Children
RIE	Royal Infirmary of Edinburgh

SABR	Stereotactic Ablative Radiotherapy
SACT	Systemic Anti Cancer Therapy
SCRN	Scottish Cancer Research Network
SCAN	South East Scotland Cancer Network
SEAT	South East & Tayside Regional Planning Group
SHPBN	Scottish HepatoPancreatoBiliary Network
SJH	St Johns Hospital
SLWG	Short Life Working Group
SPCCG	Scottish Primary Care Cancer Group
SRS	Stereotactic RadioSurgery
TCAT	Transforming Care After Treatment
TKIs	Tyrosine Kinase Inhibitors
TRAKCare	Intersystems unified healthcare information system
TSG	Tumour Specific Groups
WoSCAN	West of Scotland Cancer Network
WGH	Western General Hospital
WTE	Whole Time Equivalent

16. Appendix Two

SCAN National Cancer Strategy Allocations 2017- 2018

NHS BORDERS					
Bid Title	Year 1 2017-2018	Year 2 2018-2019	Year 3 2019-2020	Year 4 2020-2021	Total
Delivery of Systemic Anti Cancer Therapy (SACT) and supportive treatments as close to the patients home as possible.	£4,950	£69,400	£46,200	£37,953	£158,503
Year Total	£4,950	£69,400	£46,200	£37,953	£158,503
NHS DUMFRIES & GALLOWAY					
Bid Title	Year 1	Year 2	Year 3	Year 4	Total
Combined ERAS & Colorectal Nursing role	£47,600	£47,600	£0	£0	£95,200
Increasing capacity and future-proofing the SACT Service	£118,700	£118,700	£118,700	£118,700	£474,800
Year Total	£166,300	£166,300	£118,700	£118,700	£570,000
NHS FIFE					
Bid Title	Year 1	Year 2	Year 3	Year 4	Total
Band 8A Advanced Nurse Practitioner for SACT	£0	£61,936	£61,936	£61,936	£61,936
Band 7 HPB Cancer Clinical Nurse Specialist	£10,700	£42,554	£42,554	£42,554	£138,362
Band 5 Nurse Haematology/Oncology Day Unit	£6,040	£36,240	£36,240	£36,240	£114,760
Year Total	£16,740	£140,730	£140,730	£140,730	£438,930
NHS LOTHIAN					
Bid Title	Year 1	Year 2	Year 3	Year 4	Total
Developing a transformative pathway to specialist oncology care for patients presenting with metastatic cancer without an obvious primary.	£81,000	£106,000	£106,000	£0	£293,000
Radiotherapy clinical Trials & Development Team	£24,085	£97,785	£99,252	£100,741	£321,863
Increasing Renal Cancer surgical capacity	£22,606	£67,818	£90,424	£90,424	£271,272
Transperineal Prostate Biopsy Service (TPB Service)	£31,871	£47,806	£63,742	£63,742	£207,161
Year Total	£159,562	£319,409	£359,418	£254,907	£1,093,296
REGIONAL					
Bid Title	Year 1	Year 2	Year 3	Year 4	Year 5
Development and Implementation of National Guidelines for Management of Thyroid Cancer	£4,986	£19,943	£4,986	£0	£29,915
Year Total	£4,986	£19,943	£4,986	£0	£29,915

	Year 1	Year 2	Year 3	Year 4	Total
SACT Totals	£210,690	£392,276	£369,076	£254,829	£1,226,871
Surgery Totals	£112,777	£205,778	£196,720	£196,720	£711,995
Radiotherapy Totals	£24,085	£97,785	£99,252	£100,741	£321,863
Other Totals	£4,986	£19,943	£4,986	£0	£29,915

	Year 1	Year 2	Year 3	Year 4	Total
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SCAN Total	£352,538	£715,782	£670,034	£552,290	£2,290,644
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Contact:	kate.macdonald@nhsllothian.scot.nhs.uk

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