

Scottish Clinical Imaging Managed Diagnostic Network ANNUAL REPORT 2019/20



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1. Executive Summary

SCIN has developed and progressed an exciting and challenging workplan over the course of the last year, which has seen the extension of the range of stakeholders involved in network activity and consolidation of links with strategic initiatives such as the Scottish Radiology Transformation Programme (SRTP).

The 2019-20 workplan was driven forward effectively through a collaboration of the Core Team, the Steering Group and members of the network subgroups.

2019-20 continues to mark further successful collaboration between SCIN's network members and the Information Management Service (IMS) in relation to quality and performance benchmarking with particular emphasis on PET-CT and Interventional Radiology data.

Highlights of 2019-20 include:

- The creation of Special Interest Groups (SIGs), through which SCIN is contributing to workforce
 planning development and education that will equip the workforce of the future. During 2019 a
 Paediatric SIG was established and 2020 has seen the establishment of a Breast Imaging SIG, an
 Imaging Nurse SIG and an Assistant Practitioner SIG.
- Data collection has played a large part in progressing the SCIN workplan. Workforce data is being collected for Positron Emission Tomography-Computed Tomography (PET-CT) as well as Interventional Radiology (IR). Key Performance Indicators (KPIs) for PET-CT were also reviewed and updated with input from IMS. A PET-CT Data Group has been formed to take this forward.
- SCIN worked successfully with IMS and the Scottish Clinical Biochemistry Network on the CA125
 project. This project was an audit of the Scottish Cancer Referral Guidelines for Ovarian Cancer, in
 particular with a review of patients who had CA125 blood tests and ultrasounds requested in a
 defined period. This was a successful collaboration between two diagnostic networks.
- The PET-CT Working Group moved forward with plans for a national fluorodeoxyglucose (FDG) service and updates to equipment (isolators/generators) at all 4 PET-CT centres.
- Education is another area of particular success for SCIN with two education events held in 2019-20 and positive feedback for both.
- SCIN produced a position paper outlining the service requirements to provide a safe MR service to those patients with Implantable electronic cardiovascular devices (IECD) undergoing non cardiac MR examination.
- SCIN worked with colleagues in National Planning to undertake a Scotland wide survey of Computed Tomography Coronary Angiography (CTCA) access. The network will continue to work closely with the National Planning Team to address the inequalities that were highlighted in the report.
- Updated information regarding equity of access for patients with unidentified suspected malignancy, which has been forwarded to the Scottish Government.
- SCIN was involved in the development of an Interventional Radiology Skills matrix and an Out of Hours Audit to provide information on available services at practitioner level. This work was progressed in collaboration with the Scottish Radiology Transformation Programme (SRTP) and Scottish Government's Access Collaborative. The National Planning Board is now involved in progressing the Interventional Radiology (IR) work with SCIN planning further meetings of the IR Clinical Reference Group and the development of Scottish service standards, including a protocol for transfers between sites.
- The Communication Strategy has been successful with all the deliverables being met: regular update of website and frequent use of Twitter to provide updates to the community.

The Network acknowledges the contribution of Dr Hamish McRitchie and Dr Fiona Hawke for their leadership and forward thinking in achieving the network aims and delivery of the network workplan.

The priorities for the SCIN network for the coming year are:

- Developing a network approach to accessing interventional radiology services with particular focus on transfer protocols between site.
- Revisiting the Review of Indications for PET-CT in conjunction with Scottish Health Technologies Group (SHTG)
- Maintaining a continuous discussion between the PET-CT Gallium Short-Life Working Group and all sites to ensure FDG needs are met Scotland–wide.
- Building on the success of the education events from 2019, with two events planned in 2020.
- In conjunction with the Society of Radiographers and SRTP, SCIN will continue with the work regarding scoping of current practice of Band 5 radiographers, and how radiography skills are built into other areas of imaging such as Computerised Tomography (CT), Magnetic Resonance Imaging (MRI) and sonography.
- Progression of a Scottish Imaging Self Assessment Tool (SiSAT) throughout the Scottish Health Boards and using outputs from this in developing quality improvement programmes.
- Continuing workforce planning discussions with a number of stakeholders e.g. National Education Scotland and the Royal College of Radiologists, amongst others.
- Continue to share information to equip departments to tackle COVID 19 issues and support the recovery period

Since February 2020, understandably NHS Scotland's priority has been to prepare for and deal with COVID-19 impact and this has seen clinical and other resource diverted from network activity. The network has undertaken an exercise to not only capture the impact of this unprecedented situation on the current reporting period but also to assess the likely impact on delivery of the 2020/2021 workplan. All network activity requiring clinician input has been suspended due to re-deployment of clinical staff to other roles and a lack of capacity to contribute. The network's communications channels are being used widely to support imaging services in their response to the pandemic. The Education Event planned for 30th April 2020 sadly had to be postponed, although it is hoped that the meeting will take place later in the year. The April Steering Group meeting was also cancelled and members were instead contacted via email and provided with an update on network activity.

2. Introduction

Managed Diagnostic Networks are defined as co-ordinated groups of health professionals that support diagnostic services to continuously improve service delivery in order to ensure equitable provision of high quality, clinically effective services.

The Scottish Government ^{1/2} has acknowledged that diagnostics are central to whole systems service redesign of the NHS in Scotland including:

- National Delivery Plan for Healthcare Science
- National Clinical Strategy
- Realistic Medicine

Diagnostics, whether delivered in primary, community or secondary care, have an important role to play in achieving NHS Scotland's quality ambitions by contributing to early, accurate and cost effective diagnosis, monitoring and self-management.

3. Network Objectives

In line with delivery of the Scottish Government's core principles for managed networks, SCIN's overarching objectives are as follows:

- Design an ongoing development of an effective Network structure that is organised, resourced and governed to meet requirements in relation to SGHSCD Guidance on MCNs (currently CEL (2012) 29)
- Support the design and delivery of services that are evidence based and aligned with current strategic and local and regional NHS planning and service priorities.
- Effective Stakeholder Communication and Engagement through design and delivery of a written strategy that ensures stakeholders and Service Users are involved in the Network and explicitly in the design and delivery of service models and improvements.
- Improved capability and capacity in Radiology Services through design and delivery of a written education strategy that reflects and meets stakeholder needs.
- Effective systems and processes to facilitate and provide evidence of continuous improvement in the quality of care (CQI).
- Generate better value for money in how services are delivered.

4. Report against Workplan

SCIN has a core team consisting of Lead Clinician, Dr Hamish McRitchie, and Imaging Manager, Dr Fiona Hawke, who have been successful in leading the network and driving forward the workplan.

The Network has been successful in the set-up of a number of Special Interest sub-groups to improve education, innovation and best practice sharing in each imaging modality. This complements SCIN's

¹ A National Clinical Strategy for Scotland 2016.

² Realistic Medicine Chief Medical Officers Annual Report 2014-2015

approach to revitalising membership in its Steering Group, which now includes representation from a range of relevant special interest groups:

- Magnetic Resonance Imaging (MRI)
- Computerised Tomography (CT)
- Sonography
- Reporting Radiographers
- Paediatrics
- Breast Imaging
- Assistant Practitioners
- Radiology Nurses

These groups are not governed by the network but are closely aligned to its aims and objectives and offer an opportunity to engage with specific areas of the service.

4.1. Service Development and Delivery

Demand Optimisation

SCIN developed Clinical Decision Support Software to optimise imaging requesting. This was taken forward as a project by the Scottish Radiology Transformation Programme (SRTP). SCIN have continued to provide clinical expertise and guidance in the further development of this tool A CT Special Interest Group to scope dose optimisation has been established.

PET-CT Capital Funding

Significant progress has been made with PET-CT planning for NHS Scotland - key performance indicators have been agreed and, through working closely with IMS, data is routinely being collected and presented biannually. This enables an understanding of how the service is functioning across the different sites.

The PET-CT Capital Funding Strategic Business Case was endorsed by the Scottish Government's Capital Investment Group and the Directors of Finance. A ten-year investment programme has been agreed which includes a new cyclotron for Grampian and a third PET-CT scanner for Glasgow.

- The Grampian cyclotron has been funded and replaced and will be operational by mid-2020.
- There have been some issues sourcing a location for the GG&C scanner with no date established for it being put into service.

The business case also includes the development of a Gallium service for which a Short Life Working Group has been setup. It is hoped that Tayside and Lothian will be in a position to go live with a Gallium service in September 2020, with Grampian and GG&C following later in the year.

Indications for PET CT

New Lymphoma Guidelines have been developed and work is underway to update the PET-CT Review of Indications Report.

Direct Access to CT of Chest/Abdomen/Pelvis for Patients with Unidentified Suspected Malignancy

A simple survey was conducted via the SCIN CT Special Interest Group to provide an update on the national position, at the request of the various committees within Scottish Government. The group was asked to identify if GPs in their Board were permitted to refer for the above imaging in 2019. Results were presented as a progress map and an explanation of the current Scottish status for future accessibility. The SCIN website has been updated with this information which has also been passed to the Scottish Government.

CTCA Access

SCIN has worked with colleagues within National Planning to undertake a survey of CTCA access in Health Boards. A full report of this survey has been published and SCIN will work with National Planning to explore the outputs from this report.

Audit of CA125 Guidelines

SCIN has worked successfully with IMS and the Scottish Clinical Biochemistry Network on the CA125 project, which was an audit of the Scottish Cancer Referral Guidelines for Ovarian Cancer, in particular reviewing patients who had CA125 and ultrasounds requested in a defined period. This was a successful collaboration between two diagnostic networks. The audit highlighted that there was significant regional variation in guideline uptake and the majority of new CA diagnosis did not follow the referral pathway.

MR service to those patients with IECD undergoing non cardiac MR examination

A national position paper has been produced to outline the service requirements to provide a safe MR service to those patients with IECD undergoing non cardiac MR examination. In this client group, alternate imaging procedures will have been either undertaken or considered and found to be insufficient to evaluate the patient presentation. The report has highlighted that there is no cohesive service for patients with MR conditional IECD across Scotland, therefore there was no equity of access. SCIN are currently looking at how to progress the issues highlighted in the position paper

Scottish Radiology Transformation Programme (SRTP)

A key objective of the programme was enabling Cross Boundary Reporting. SCIN developed the clinical governance framework to guide operations and has continue to support the workstream to enable delivery within the designated time frame.

4.2. Stakeholder Communication and Engagement.

Communication and Engagement

An area of particular success for SCIN has been the Communication Strategy with the following network deliverables being achieved in 2019-20:

- The SCIN website was kept up to date, ensuring that it was informative and user friendly for stakeholders
- A quarterly newsletter was produced, sent via email, and published on the website to ensure stakeholders were kept informed of work being carried out by SCIN
- Mailing lists were maintained and updated throughout the year
- Surveys were issued to gather feedback from stakeholders and identify their priorities for the Network
- SCIN routinely used the @NMDNScot Twitter account for all of the National Managed Diagnostic Networks to and engage with the imaging community in Scotland.

Increased participation of other SCIN members was achieved in these areas via engaging with special interest groups to host their information and engaging with members of the Steering Group to post more relevant/interesting information.

There has also been continuing collaboration with SRTP to align workplans and provide joint opportunities for engagement with the imaging community. Dr Fiona Hawke, the Network Imaging Manager, has also made a significant contribution to the development of the clinical governance framework to support cross-boundary reporting and radiographer reporting.

The NMDN Twitter account has grown from 579 followers to 714 in the past year. Overall, NMDN tweets have an average 861 impressions (the number of times a tweet shows up in somebody's timeline) and 23 engagements (people who have seen/clicked on/ retweeted or liked) per tweet. SCIN has been engaged on Twitter with the hashtags #SCIN and #imagingcommunity

The tweet with the highest impressions for SCIN was about the annual event:



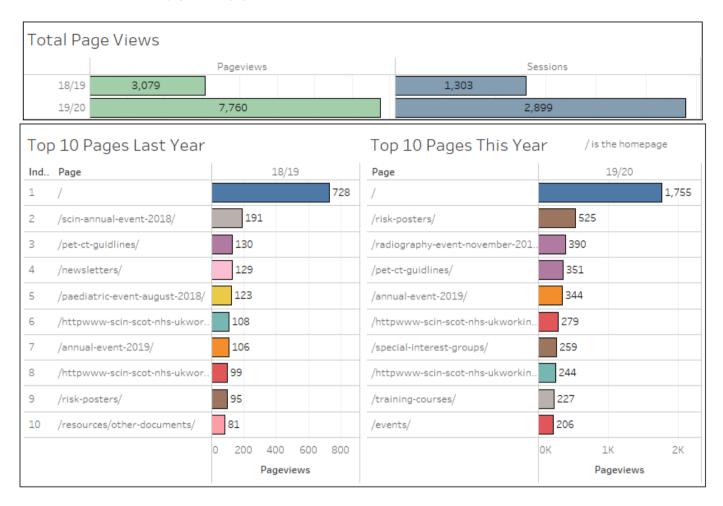
SCIN's tweet with the highest engagement and engagement rate was about the first meeting of the Breast Imagining Special Interest group.



Tweets on the day of SCIN's annual event in May had over 3500 impressions and 53 engagements.

As can be seen from the graphs below, SCIN continued to engage well with the wider imaging community through the SCIN website. The risk posters and PET CT guidelines were both pages that were well visited. This demonstrates that the work SCIN is doing is being read, and hopefully used, by the community.

Full year report: from 1/4/19 > 31/3/20

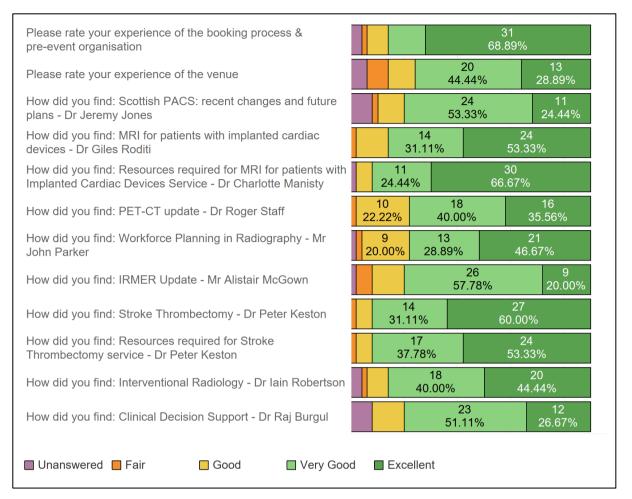


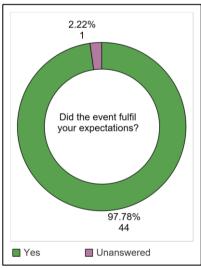
4.3. Education

Education and Training

SCIN organised two events this year – an Annual Education Event in May and also a Radiography focused event in November. Both events were very well attended and feedback from both was excellent.

The SCIN annual event was very well received with the majority of delegates rating the event as very good or excellent. The event programme was dynamic and varied, with an impressive array of speakers covering all major strategic initiatives.





The event sparked delegates to consider how they work going forwards.

What might you do differently as a result of attending the event?

Share my knowledge of cardiac devices and MRI scanning with colleague

Currently reviewing workforce & workforce planning

Speak to Cardiology in Fife re Pacemakers & MRI

Increase awareness of scanning conditional Pacemakers

Update info given to students

Work with A&A on WFP

Contact colleagues & share good practice

Encourage stroke imaging to be expedited In CT - with Radiographer authorisation

Renew process, try & keep up to date with guidelines

Lots of food for thought with regard to future workload and planning

Greater strategic awareness

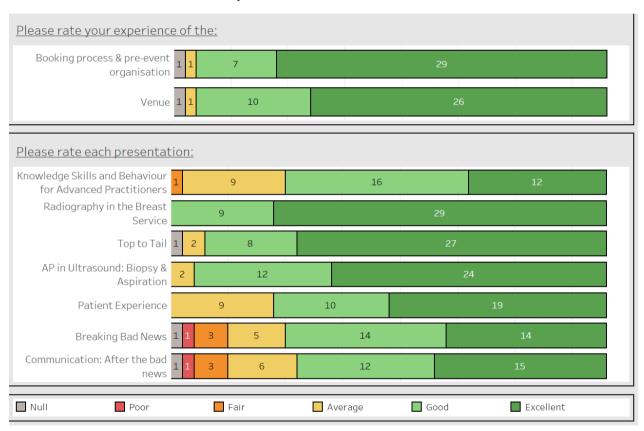
Our service is moving towards scanning MRI impacted devices - will cascade information from today. Thrombectomy service possibly on the way - can begin to prepare our role.

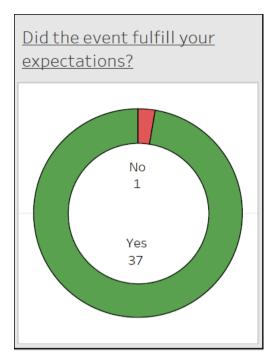
Thrombectomy - trying to integrate service

Scanning patients with cardiac devices

Discuss with management about hospital planning

The second event of 2019 was the SCIN Radiography Event which was held on the 1st November. This event was very well received with 65 people registering to attend. Attendees came from a wide range of boards and external agencies, and included a wide variety of roles. The event was an opportunity for the network to engage directly with Radiographers to broaden its understanding of the issues facing this profession and what the role of the network might be in helping drive improvements. The images below illustrate that the talks were well received by the majority of attendees, and that the organisation of the event and the venue itself were very well received.





Following on from the event SCIN will continue to work on developing the role of radiographers across Scotland. A number of ideas were put forward for future events, and it is hoped that we will be able to hold another Radiographer focused event on 2020.

4.4. Audit and Continuous Quality Improvement

PET-CT KPIs

SCIN worked with the Information Management Service (IMS) to develop a way to measure and evidence the quality of service across centres, as well as look at capacity and demand. Key Performance Indicators for PET-CT were agreed and data was collected to ensure these were reported to the working group biannually. This data was reviewed at the PET-CT Working Group meetings where variation in quality can now be readily identified. It was agreed at a recent meeting to collect this data on an annual basis going forwards.

Develop an Atlas of Interventional Radiology

SCIN's five-year work plan included the development of an atlas of interventional radiology, refreshing work completed by SCIN in 2016, to provide a clear picture of what was available across the country. SCIN developed Scottish Service standards for Interventional Radiology which included the development of a patient transfer protocol. National Planning is now involved in progressing this work, with ongoing involvement from SCIN to provide clinical expertise.

4.5. Value

Developing a sustainable workforce

SCIN has worked with multiple stakeholders – National Education Scotland (NES), Royal College of Radiologists, Society and College of Radiographers (SCoR), Higher Education Institutions (HEIs), SRTP and Scottish Government – to support the development of a sustainable workforce.

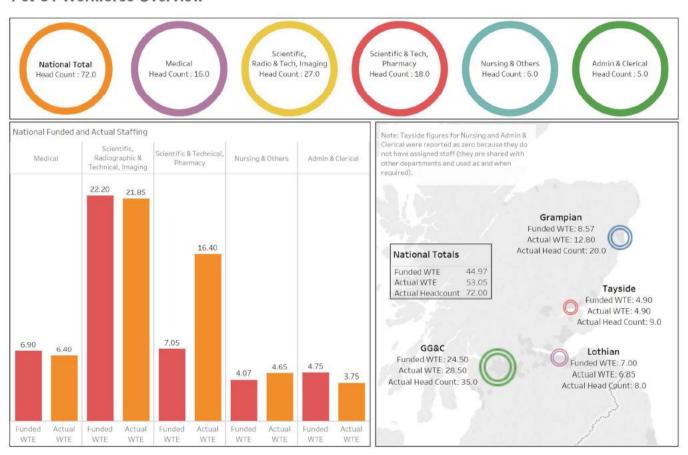
The initial meeting to kick off this piece of work was held and an audit of workforce status was collected including:

- Anticipated retirals
- Effects on sustainability due to retirals
- Post graduate education to underpin specialist services

Participation in the audit was low as was participation in the Scottish Radiographer SoR workforce census (on the SCIN website). There is a continuing perception, from radiographers of all grades, that radiographer workforce issues are a significant problem across Scotland. Following discussion at the SCIN Steering Group in March 2019, the service managers at the meeting were clear that there were many radiographer workforce problems that were common across Scotland.

In collaboration with the Scottish Access Collaborative, work started at the end of 2019 to develop a Breast Imaging Framework (for screening and symptomatic) with associated Job Descriptions for Advanced Practitioners in Breast Imaging. This patient focussed work seeks to guide NHS Boards to standardise the employment and deployment of Breast Imaging Advanced Practitioners. The framework is aimed at NHS Boards, Service Managers, Clinical/Professional Leads, Workforce Planning, NMAHP Academy and Advanced Practitioners in Breast Imaging to describe a Framework for Breast Imaging Services into the future. This work is currently on pause due to the ongoing COVID-19 situation, but will hopefully be picked up later this year.

SCIN has also undertaken an audit of PET CT workforce across Scotland. Pet-CT Workforce Overview



Scottish Imaging Self-Assessment Tool (SiSAT)

SCIN developed the Scottish Imaging Self-Assessment Tool (SiSAT) to provide a comprehensive document that evidences service quality. SiSAT provides a Quality Scorecard for imaging services using indicators assessing Clinical Performance, Environment, Workload and Workforce, Patient Experience and Safety Characteristics.

SiSAT is completed by clinicians and managers responsible for the service in each NHS Board area. The questionnaire findings will be held within each service and remain internal documents. The SiSAT will help identify gaps in quality and provide evidence of quality improvement via the associated action plans.

The SISAT can also be used to benchmark quality against other centres if managers from both services agree to this action. The resultant document can be submitted, if required, for any external inspection. The SiSAT does not specify that any evidence to support the responses be submitted, however it is expected that supporting evidence is available and could be supplied during an external inspection.

SiSAT was presented to the Scottish Association of Medical Directors (SAMD), who were supportive of it as a useful tool to inform and support good governance and recommended it being adopted by Boards through SCIN on a voluntary basis. This would allow a no cost self-assessment while allowing the evidence to be collated, should accreditation by an external agency be required. SiSAT has also been endorsed by the Scottish Imaging Managers Group and DSG.

Contribute to workforce planning, development and education to equip the workforce of the future

The Interventional Radiology Clinical Reference Group has been involved in developing an Interventional Radiology Out of Hours audit to assist with workforce planning. A one-month audit of out of hours activity was undertaken for the month of March 2019. 134 calls were logged in this month and the results evidence a service that is heavily reliant on the medical workforce, is time consuming, does not always result in a procedure being performed and the rationale for calls is not always within the parameters recommended by the IR Clinical Reference Group This has been presented to the Scottish Government SLWG and was presented to the National Planning Board on May 3rd. SCIN is working in collaboration with the National Planning Board to take forward a number of recommendations to future proof Interventional Radiology Services.

SCIN has also been successful in assisting with the facilitation of radiographer Special Interest Groups such as Sonography, Magnetic Resonance Imaging (MRI), Paediatrics, Advanced Practitioners, Imaging Nurses and Computerised Tomography (CT)

5. Plans for the Year Ahead

The key priorities for SCIN for 2020-2021 are:

COVID-19 Crisis

Since February 2020, understandably, NHS Scotland's priority has been to prepare for and deal with COVID-19 impact and this has seen clinical and other resource diverted from network activity. SCIN will help support the community as demand for services increases during the recovery period. SCIN will also continue to use their communication channels for information sharing across Scotland.

Develop cohesive pathways to imaging that provide safe, equitable access to diagnosis and care

By building on the work of the Interventional Radiology Clinical Reference Group, SCIN is developing a network approach to accessing interventional radiology services. A protocol for transfer of patients between health boards is currently under development for Interventional Radiology services. SCIN is also presenting a paper on future service delivery models for IR to the National Planning Board and hopes to support this work going forward.

Support Service modernisation and development in key strategic areas

The PET-CT Working Group will look to update the Review of Indications in light of any clinical development in partnership with Scottish Health Technologies Group (SHTG). Potential updates will be discussed at each PET-CT Working Group.

The PET-CT Gallium Short Life Working Group (SLWG) is in continuous discussion with all the PET-CT sites and suppliers to ensure FDG needs are met Scotland-wide. A supply strategy will be developed in 2020 to ensure we have a sustainable and reliable supply of the necessary isotopes.

Support the development of sustainable imaging services throughout the Scottish Radiology Transformation Programme (SRTP)

The SCIN Core Team continues to make contribution to SRTP by attending the regular programme meetings and providing a vehicle for engagement and consultation with the clinical community as required and agreed.

Education Events

SCIN will continue to build on the success of the education events from 2019 with two events planned in the coming year – the Annual Education Event in April 2020 and a speciality event in November

There is a need to identify service requirement for advanced practice roles and to ensure that these roles meet the other pillars of Advanced Practice other than clinical skill

SCIN, in conjunction with the Society of Radiographers and SRTP, will continue with the work which commenced in 2018 regarding scoping of current practice of Band 5 radiographers, how the radiography skills base is built into Computerised Tomography (CT) and also Magnetic Resonance Imaging (MRI), as well as how boards are progressing succession planning in sonography. A previous report concerning these issues has generated further discussion and will be discussed again as part of the SCIN Annual Event.

SCIN will continue to nurture a culture of continuous quality improvement in imaging across NHS Scotland

In 2020, SCIN will continue to progress the Scottish Imaging Self-Assessment Tool (SiSAT) throughout the Scottish Health Boards and support the Boards in using outputs to develop quality improvement programmes. Approval by SAMD has assisted with highlighting this to Health Boards. Health Improvement Scotland (HIS) has shown interest in taking this forward.

SCIN is engaging with National Education Scotland, College of Radiologists, Society and College of Radiographers, HEIs, SRTP and the Scottish Government to develop a sustainable imaging workforce

SCIN continues to work with SRTP regarding workforce planning. This is a continuation of work commenced in 2018. A further discussion of what is required by SCIN will take place in 2020.

6. Detailed Description of Progress in 2019/20

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
1. Effect	The network Structure and Control of the network will organise 3 Steering Group meetings and sub-group meetings as required throughout 2019/20 to ensure effective delivery of the workplan	O1/04/2019- 31/03/2020	Steering Group and subgroup membership	Steering Group meetings were held in March 2019, August 2019 and January 2020	Effective delivery of the SCIN network workplan to ensure continuation of progress	В
2019-02	Development and Deliver Develop cohesive pathways to imaging e.g Interventional Radiology, CT, that provide safe, equitable access to diagnosis and care	01/04/2019- 31/03/ 2020	 Interventional Radiology Clinical Reference Group SCIN Steering Group 	 A network approach to accessing interventional radiology services is under development A CT Special Interest Group to scope dose optimisation has been established 	A safe, equitable service across NHS Scotland with robust cover in place for interventional radiology services, equity of access for patients with an unidentified suspected malignancy, consistent DNA coding and management, and safe, consistent dose	В
				SCIN produced a position paper outlining the service requirements to	optimisation	

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
				provide a safe MR service to those patients with IECD undergoing non cardiac MR examination. • SCIN has worked with colleagues in National Planning to undertake a Scotland wide survey of CTCA access and will continue to work closely with the National Planning Team to address the inequalities that were highlighted in the report		
2019-03	Support service modernisation and development in key strategic areas such as PET-CT and paediatrics	01/04/2019- 31/03/2020	PET-CT Working GroupPET-CT Gallium SLWG	PET-CT Review of Indications will be reviewed in light of any clinical development in	There is national oversight and continuous improvement in PET-CT, ensuring	В

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
			SCIN paediatric sub-group	partnership with SHTG • An FDG production plan is being produced to ensure needs are met Scotland wide • SCIN will continue to support the Paediatric Workstream	appropriate use and reduced variation Issues in paediatric imaging are understood and integrated into SCIN operations with key improvements progressed	
3. Stakeho	Ider Communication and Engage	ement [linked to Quality	Dimensions 1,3,4,5,6]			
2019-04	Support the development of sustainable imaging services through coordinated working with the Scottish Radiology Transformation Programme. and by providing SCIN expertise and guidance on relevant topics whilst ensuring communication channels are maintained between SCIN and SRTP.	01/04/2019- 31/03/2020	SCIN Core Team/Steering Group	Current coordinated practices in place between SCIN and SRTP are Dr Hawke (SCIN Imaging Manager) sitting on the SRTP Advanced Practice and Radiographer Reporting sub-groups to provide expertise and guidance. The SCIN core team also continue to attend the SRTP Monthly Stakeholder Meetings to ensure	An imaging service capable of national reporting with robust governance and QA processes in place to facilitate this	В

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
				communication between the two groups.		
				SCIN Imaging Manager has been instrumental in workstreams such as Advanced Practice in radiography and reporting radiographers.		
4. Educa	tion [linked to Quality Dimensions 1,2,	3,4,5,6]				
2019-05	Education events	01/04/2019- 31/03/2020	SCIN Core Team/Steering Group/PET-CT Working Group	Two education events were held in 2019 – SCIN Annual Event in May and a radiography focused event in November.	A workforce that is trained and skilled to deliver the service of the future, including an understanding of gaps in education and a clear way to address succession planning requirements.	В
5. Audit	and Continuous Quality Im	provement [linke	d to Quality Dimensions 1,	2,3,4,5,6]		
2019-06	There is a need to identify service requirement for Advanced Practice roles and to ensure that these roles meet the other pillars of Advanced	01/04/2019 – 31/03/2020	Dr Fiona Hawke/Society of Radiographers/Scot tish Radiology Transformation Programme	SCIN and the Society of Radiographers will scope what the current practice is for band 5 radiographers, how radiography skills base are built in CT/MR and	SCIN and the Society of Radiographers will be able to advise the Scottish Government of what needs to be implemented to ensure radiographers are sufficiently trained to	Α

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
	Practice other than the clinical skill. SCIN will provide clinical expertise with regards to how these roles should be developed in NHS Scotland			how the boards succession plan for ultrasound	meet the future demands of health care needs	
2019-07	SCIN will continue to nurture a culture of continuous quality improvement, through: Development and launch of SISAT Considering outputs from SiSAT, and supporting NHS Boards to use these outputs to develop quality improvement programmes. Develop QI Programme for PET-CT	01/04/2019- 31/03 /2020	 Imaging Manager/ Programme Manager/IMS PET-CT Working Group 	 SiSAT has been approved by SAMD Data is being collected against PET QIs and regularly reported against 	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	В
2019-08	Contribute to workforce planning, development and education to equip the workforce of the future • Produce an audit of interventional radiology workforce, including predicted numbers of trainees required	01/04/2019- 31/03/2020	 Interventional radiology Clinical Reference Group SCIN Steering Group 	Data has been collected re: interventional radiology workforce and presented at the Scottish Government Short Life Working Group and also	A workforce that is trained and skilled to deliver the service of the future, including an understanding of gaps in education and a clear way to address succession planning requirement	В

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
	Facilitate specialist interest group in sonography		PET-CT Working Group	National Planning Board		
	Produce an audit of PET- CT Workforce			 A specialist interest group in sonography has been facilitated An audit of PET-CT Workforce has been agreed by the PET-CT Working Group and is being progressed. 		
2019-09	SCIN is engaging with the National Education Scotland, Royal College of Radiologists, Society and College of Radiographers, HEIs Scottish Radiology Transformation Programme (SRTP) and the Scottish Government to develop a sustainable Imaging workforce.	01/04/ 2019- 31/03/2020	Dr Fiona Hawke	SCIN will present the work that it is undertaking to the DSG and the SRTP. This is running behind schedule due to lack of contact from NES.	This work informs the Scottish Government of vacancies, likely impact of retrials and succession planning. Constraints to education such as funding, training time and backfill are also on the agenda for continued discussion.	A

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at March 2020	Anticipated Outcome	RAGB status
2019-10	SISAT	01/04/2019 – 31/03/2020	Imaging Manager/Program me Manager/IMS	This is now live.	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	В

7. **SCIN** Workplan 2020-21

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
1. Effecti	ve Network Structure and Countries The network will organise 3 Steering Group meetings and	01/04/2020-	ed to Quality Dimensions	3,4,5,6] April meeting has		
2020-01	sub-group meetings as required throughout 2020/21 to ensure effective delivery of the workplan	31/03/2021	Steering Group and subgroup membership	been cancelled, date of next meeting to be confirmed once new Core Team appointed.	Effective delivery of the SCIN network workplan to ensure continuation of progress	A

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
2020-02	Recruit Lead Clinician and Imaging Manager for the network	31/05/2020	Programme Manager	Imaging Manager interviews are scheduled for 22nd April, but this may need to be changed due to COVID. Discussions underway due to no applications for Lead Clinician post.	Effective leadership of the SCIN network	Α
2020-03	SCIN will engage with the new, emerging strategic governance structure for diagnostic services in Scotland.	01/04/2020- 31/03/2021	Core Team SPM	SCIN were represented at the development session for the new structure	SCIN is able to contribute to and be guided by the strategic vision for diagnostic services in Scotland	G
2. Service	e Development and Deliver	y [linked to Quality D	imensions 1,2,3,4,5,6]			
2020-04	Repeat audit of Direct Access to CT of Chest/Abdomen/Pelvis for Patients with Unidentified Suspected Malignancy	01/04/2020- 31/03/ 2021	Imaging manager	This will be ran late 2020	Equity of access for direct referral to CT for Patients with Unidentified Suspected Malignancy	G
2020-05	Carry out a mapping exercise to benchmark delivery of MR prostate services across Scotland	01/04/2020- 31/03/ 2021	Imaging manager	On hold until end of 2020	Equity of access for patients needing MR prostate scans.	G

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
2020-06	Take forward the recommendations from SCIN's position paper outlining the service requirements to provide a safe MR service to those patients with IECD undergoing non cardiac MR examination.	01/04/2020- 31/03/ 2021	Core Team/Programme Manager	On hold	Equity of access for non cardiac MR examination to those patients with IECD	G
2020-07	Work with the National Planning Team to progress the actions from the CTCA mapping paper	01/04/2020- 31/03/ 2021	Programme Manager	On hold	Equity of access for CTCA	G
2020-08	Provide clinical expertise to the National Planning Board activity on Interventional Radiology, including guidance on developing service standards and the provision of data	01/04/2020- 31/03/ 2021	N APM/Clinical Reference Group	On hold	A safe, equitable service across NHS Scotland with robust cover in place for interventional radiology services	G
2020-09	Share recommendations for dose optimisation.	01/04/2020- 31/03/ 2021	Steering Group	On hold	Safe, consistent dose optimisation	G
2020-10	Indications for PET CT will be reviewed in light of any clinical development in partnership with SHTG	01/04/2020- 31/03/2021	PET-CT Working Group	On hold	Support service modernisation and development in key strategic areas.	G
					There is national oversight and continuous improvement in PET-CT,	

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
					ensuring appropriate use and reduced variation	
2020-11	Development of a Supply Strategy for PET CT across Scotland	01/04/2020- 31/03/2021	PET-CT Working Group	On hold	A sustainable supply of isotopes for PET CT across Scotland	G
2020-12	Progress PET CT Gallium workplan with the development of referral guidelines for PSMA scans	01/04/2020- 31/03/2021	PET-CT Working Group	On hold	There is national oversight of PET-CT PMSA scanning, ensuring appropriate use and reduced variation	G
2020-13	SCIN will continue to support paediatric education through the Paediatric SIG	01/04/2020- 31/03/2021	SCIN paediatric sub-group		Issues in paediatric imaging are understood and integrated into SCIN operations with key improvements progressed	G
3. Stakeho	Ider Communication and Engag	ement [linked to Quality	Dimensions 1,3,4,5,6]			
2020-14	Support the development of sustainable imaging services through coordinated working with the Scottish Radiology Transformation Programme. and by providing SCIN expertise and guidance on relevant topics whilst ensuring	01/04/2020- 31/03/2021	SCIN Core Team/Steering Group	Current coordinated practices in place between SCIN and SRTP are Dr Hawke (SCIN Imaging Manager) sitting on the SRTP Advanced Practice and	An imaging service capable of national reporting with robust governance and QA processes in place to facilitate this	G

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
	communication channels are maintained between SCIN and SRTP.			Radiographer Reporting sub-groups to provide expertise and guidance.		
				The SCIN core team also continue to attend the SRTP Monthly Stakeholder Meetings to ensure communication between the two groups.		
				SCIN Imaging Manager has been instrumental in workstreams such as Advanced radiography and reporting radiographers.		
2020-15	SCIN will issue regular newsletters.	01/04/2020- 31/03/2021	Programme Manager		Regular updates will ensure the work of the network is disseminated widely.	G
2020-16	SCIN will use twitter to engage with the imaging community.	01/04/2020- 31/03/2021	Programme Manager		The profile of the network will be raised within the community.	G

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status	
4. Educa	4. Education [linked to Quality Dimensions 1,2,3,4,5,6]						
2020-17	Deliver 2 education events	01/04/2020- 31/03/2021	SCIN Core Team/Steering Group	April event has been cancelled and will be rescheduled for later in the year	A workforce that is trained and skilled to deliver the service of the future, including an understanding of gaps in education and a clear way to address succession planning requirements.	A	
5. Audit and Continuous Quality Improvement [linked to Quality Dimensions 1,2,3,4,5,6]							
2020-18	There is a need to identify service requirement for Advanced Practice roles and to ensure that these roles meet the other pillars of Advanced Practice other than the clinical skill. SCIN will provide clinical expertise with regards to how these roles should be developed in NHS Scotland	01/04/2020 – 31/03/2021	Imaging Manager / Society of Radiographers / Scottish Radiology Transformation Programme	The Chair of the Service Managers Group is currently on special leave and unable to take this work forwards.	SCIN and the Society of Radiographers will be able to advise the Scottish Government of what needs to be implemented to ensure radiographers are sufficiently trained to meet the future demands of health care needs	A	
2020-19	Review and update SiSAT	01/04/2020- 31/03 /2021	Imaging Manager	On hold	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	G	

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
2020-20	Agree targets for key performance indicators for PET CT	01/04/2020- 31/03/2021	PET CT working group	On hold	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	G
2020-21	Develop QI Programme for PET-CT through regular data collection and reporting.	01/04/2020- 31/03/2021	PET CT Data Group	60% of PET CT workload is not currently being undertaken.	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	Α
2020-22	Map key performance indicators for imaging across Scotland and look to set National KPIs	01/04/2020- 31/03/2021	Imaging Manager	On hold	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	G
2020-23	Agree targets for key performance indicators for PET CT	01/04/2020- 31/03/2021	PET CT working Group	On hold	Imaging departments are equipped to understand the quality of their service and share plans and improvement stories.	G
2020-24	Contribute to workforce planning, development and education to equip the workforce of the future	01/04/2020- 31/03/2021	Interventional radiology Clinical Reference Group SCIN Steering Group PET-CT Working Group		A workforce that is trained and skilled to deliver the service of the future, including an understanding of gaps in education and a clear way to address succession planning requirement	G

Objective Number	Smart Objective	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as at	Anticipated Outcome	RAGB status
2020-25	SCIN is engaging with the National Education Scotland, College of Radiologists, Society and College of Radiographers, HEIs Scottish Radiology Transformation Programme (SRTP) and the Scottish Government to develop a sustainable Imaging workforce.	01/04/ 2020- 31/03/2021			This work informs the Scottish Government of vacancies, likely impact of retrials and succession planning. Constraints to education such as funding, training time and backfill are also on the agenda for continued discussion.	G
2020-26	Develop JD and Framework for Breast Imaging. Continue to work with Scottish access collaborative in reviewing and updating Breast Imaging Framework to reflect service developments.	30/04/2020	Imaging Manager	JD Documents have been completed and need to go through national HR process. Scottish Access Collaborative is currently on hold so the Breast Framework document development is on hold.	A workforce that is trained and skilled to deliver the service of the future.	G
6. Value [linked to Quality Dimensions 1,2,3,4,5,6]						
2020-27	SCIN will undertake an assessment of the value it has added through benefits realisation work to measure the impact of past SCIN workstreams.	01/04/2020- 31/03/2021	SCIN Core		An awareness of the extent to which SCIN has influenced the .	G

Appendix 1: Steering Group Membership

Mr John Airlie Radiographer (CT Special Interest Group) **NHS Borders** Dr Grant Baxter Consultant Radiologist/Chair of Standing NHS Greater Glasgow & Scottish Committee Clyde/Royal College of Radiologists Mr Mike Beach **NHS Orkney** Radiology Service Manager Mrs Liz Blackman Senior Programme Manager **NHS National Services** Scotland Ms Jeanette Burdock Radiology & Diagnostic Services Manager NHS Fife Dr Raj Burgal Consultant Radiologist (SCIN QI Chair) **NHS Forth Valley** Mr Mike Conroy Radiology Service Manager **NHS Tayside** Dr Stephen Cooper Consultant Radiologist NHS Ayrshire & Arran **NHS Lothian** Dr John Fitzpatrick Trainee radiologist/student Tayside Radiology Clinical Leader Dr Kenneth Fowler NHS Tayside Ms Karen Gee Radiographer (MR Special Interest Group) NHS Borders Ms Jennifer Gilchrist Head of Radiology **NHS National Waiting Times Board** Mrs Caroline Green N/A Patient Representative Mrs Valerie Grierson NHS Dumfries & Interim Radiology Manager Galloway Dr Alistair Hart Consultant Haematologist NHS Greater Glasgow and Clyde Dr Fiona Hawke Advanced Practice Radiographer/SCIN **NHS Borders Imaging Manager** Ms Kate Henderson Commodity Manager **National Imaging Equipment Group** Mr Clinton Heseltine Chief Radiographer/Radiology NHS Lothian Service Manager Professional Lead/Radiography Service Ms Morag Howard Manager NHS Highland

Consultant Radiologist (Chair SCIN QI Group)

NHS Forth Valley

Dr Paul Kelly

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Mrs Claire Lawrie	Programme Manager	NHS National Services
		Scotland
Ms Jane MacDonald	Acting Radiology Manager	NHS Western Isles
Dr Barbara MacPherson	Consultant Radiologist/Clinical Director	NHS Lanarkshire
Dr Jonathan McConnell	Radiographer (RRIGS)	NHS Greater Glasgow &
		Clyde
Mr Alistair McGown	IRMER Regulator	Healthcare Improvement
		Scotland
Mr Colin McGrath	Patient Representative	N/A
Dr Simon McGurk	Consultant Radiologist	NHS Lothian
Ms Karen McNicholl	Divisional General Manager	NHS Highland
Dr Hamish McRitchie	SCIN Lead Clinician/NRIP SME/	
	Consultant Radiologist	NHS Borders
Dr Fiona Minns	Consultant Radiologist	NHS Lothian
Dr Clare Monaghan	Consultant Radiologist Physicist	NHS Tayside
Ms Maria Murray	Professional Officer for Scotland	Society & College of
		Radiographers
Mr John Parker	Service Manager	NHS Ayrshire & Arran
Ms Veronica Mesquita	Programme Support Officer	NHS National Services
		Scotland
Ms Sandra Robertson	Radiology Department Manager	NHS Forth Valley
Mr Chris Rowley	AHP Lead, Education & Workforce	Scottish Government
Dr Roger Staff	Physicist (PET-CT Working Group Chair)	NHS Grampian
Mrs Judy Stein	Service Manager Laboratories, Radiology	
	And the Scottish Centre for Simulation &	
	Human Factors	NHS Forth Valley
Ms Morag Stout	Consultant Sonographer (US Special Interest	
	Group	NHS Greater Glasgow &
		Clyde
Professor David Sutton	Head of Medical Physics	MpNET (Medical Physics)
Ms Lucy Wilson	CT Line Manager	NHS Shetland

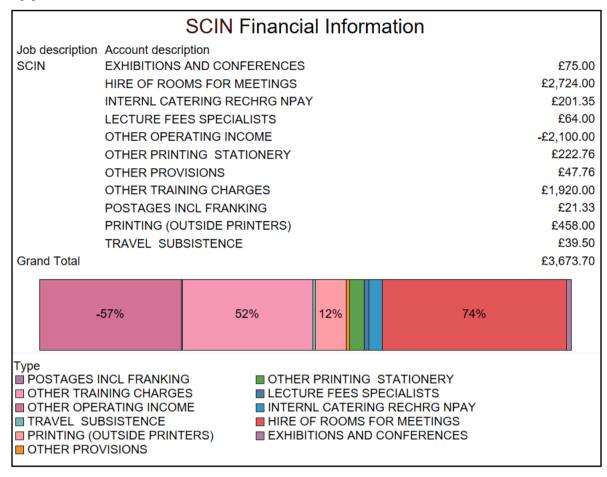
Mr William Woods Student Representative Queen Margaret

University (student)

Mrs Camilla Young Programme Manager NHS National Services

Scotland

Appendix 2: Finance



As can be seen from above, the majority of SCIN's budget was spent on hiring external venues for the two events. Thanks to event sponsorship, SCIN finished the year with a £1327 surplus.