

Scottish Clinical Imaging Network

Annual Report 2021/22

Network Imaging Managers: Mrs Anne-Marie Ross and Dr Jonathan McConnell (to February 2022)
Programme Manager: Mrs Camilla Young
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Background

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

The role of the Scottish Clinical Imaging Network (SCIN) is to improve imaging services by developing and delivering a workplan, which will:

- Steer modernisation including service change and redesign
- Improve quality
- Ensure provision of an effective imaging service
- Anticipate and respond to user needs and future requirements
- Enable services to meet national guidelines

Highlights

Developing Workforce Sustainability: Radiology Assistant Practitioner

SCIN is committed to the ongoing development of the imaging workforce and have been actively engaged with NHS Education for Scotland (NES) and the Society and College of Radiographers (SCoR), to support the development of the Assistant Practitioner (AP) in Radiology departments. Further establishment of the AP role would be a significant step forward in developing a sustainable workforce model for Radiology in Scotland.

There are four levels of clinical practice: consultant practitioner, advanced practitioner, practitioner and assistant practitioner, together with a general support workforce. Developing and establishing the scope of practice and role of the AP within Radiology should be seen as an adjunct to the development of practitioners to advanced and consultant roles. A clear career progression strategy for all radiology staff would assist to both meet current demands and recovery as well as providing opportunities to help with retention and recruitment of staff.

To enable the development of AP Scope of Practice, additional education and training will be required. During 2021/22 the SCIN Imaging Manager worked closely with NES to develop work based modules informed by a Service/ Learning Needs Analysis. An updated Service Needs and Learning Needs Analysis is out for consultation at this time (April 2022) It was hoped that a pilot of the work-based modules could take place by the end of 2021, but this was delayed slightly to March 2022.

As part of the current Scottish Radiology Transformation Programme (SRTP)/ SCIN venture, SCIN Imaging Manager is also involved in looking at the progression and support of more Health Care Support Workers (HCSWs) to AP level via HEI courses.

This collaborative work between SRTP/ SCIN/ NES and SoR will aim to provide further recommendations of using and developing this valuable asset of AP expertise to provide support within Radiology in Scotland.

A New Service for Scotland

Positron Emission Tomography-Computed Tomography (PET-CT) Prostate Specific Membrane Antigen (PSMA) PET-CT is a unique imaging tool which shows pathology by using the combination of PET to detect derangement in tissue metabolism and CT to show structural changes. Certain types of cancer, eg prostate and neuroendocrine tumours, require PET-CT scans using different radiopharmaceuticals that are not currently routinely available in Scotland. Previously patients requiring these particular types of PET-CT scans would be referred to other sites in England. In 2018, the Scottish Government announced funding to allow for the installation of 4 Gallium (⁶⁸Ga) generators (one at each PET-CT site) to allow the centres to provide ⁶⁸Ga-Prostate Specific Membrane Antigen (PSMA) PET-CT for prostate cancer and ⁶⁸Ga-DOTA-Octreotide PET-CT for neuroendocrine tumours.

The National PSMA service is now fully operational and the network plays a key role in tracking progress towards delivery of the service, as well as monitoring capacity and demand once the service is in place.

Service Improvement

Waiting Times

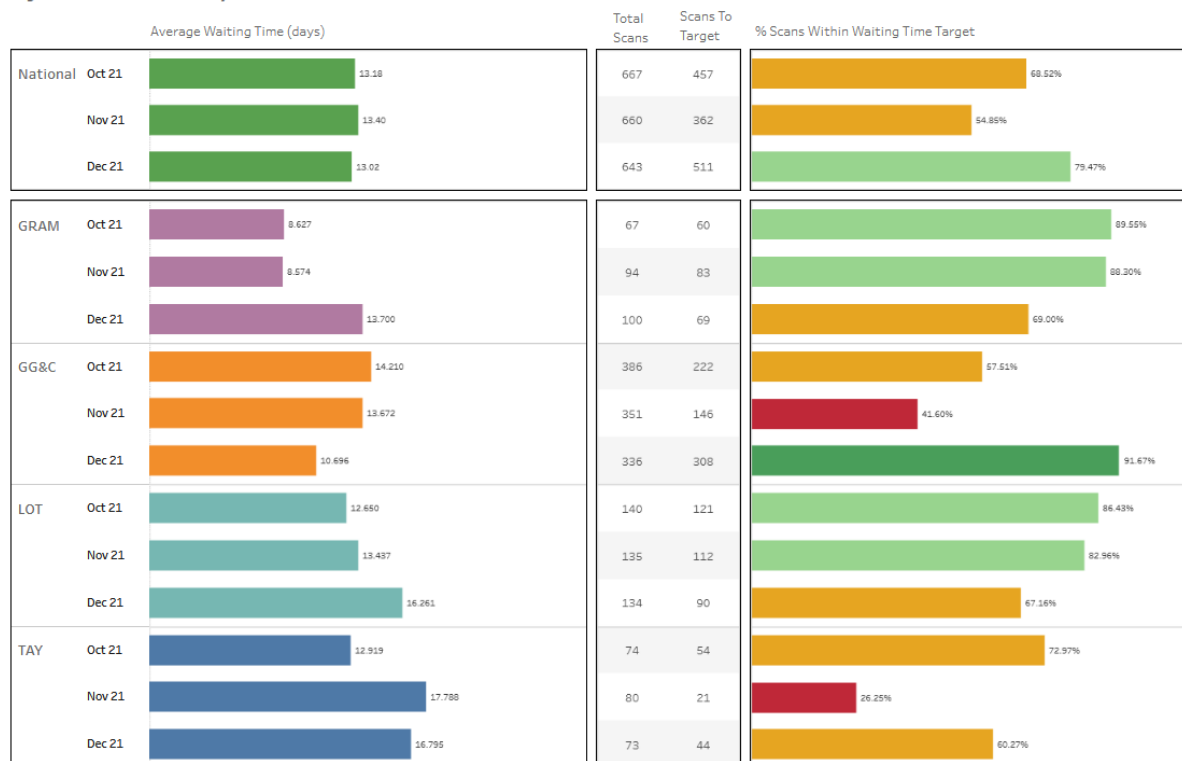
This year marked further successful collaboration between SCIN's network members and the Information Management Service (IMS), in relation to quality and performance benchmarking. Key Performance Indicators for PET-CT have been agreed and data is collected on a monthly basis and published quarterly on the SCIN website

<https://www.scin.scot.nhs.uk/scin-work/scin-pet-ct/scin-pet-ct-waiting-reporting-times/>.

This data is reviewed at the PET-CT Working Group meetings where variation in quality can now be readily identified. The data is also shared with the Scottish Government's Cancer Recovery Board to help inform its monitoring and direction of the remobilisation of cancer services.

Average Waiting Times & Monthly Scans Meeting 14 Day Target from Request to Scan (National and by Pet-CT Centre)

Select date (reports default to end of month automatically):



Only 'standard' scans for NHS patients are included i.e. planned, research, PSMA and Ga-68 scans are not included as they booked in advance to differing waiting time standards. Lothian waiting times are inflated because they do not identify 'Planned' scans in the data.

Quality and Data group

The QI and Data subgroup was re-established with strong links to the National Data Project within SRTP and the Scottish Government. Utilising the data submitted through the National Radiology Information and Intelligence Platform, SCIN plans to publish a first Imaging Insights Report in late 2022. A draft report has been produced and circulated through the Imaging Executive Board for comment. This report will include information on current demand on imaging services, waiting times and workforce. This work will mean that NHS Scotland will have a clearer picture of imaging services activity, an agreed way forward to develop the data set further and to use the information to target variation and improve quality.

Measuring Quality In 2019 SCIN developed and launched a quality measurement tool known as the Scottish Imaging Self-Assessment Tool (SiSAT). This aims to provide a Quality Scorecard using indicators assessing four key areas within Radiology, forming a record that can be used to evidence service quality.

Work to review SiSAT was delayed slightly due to ongoing clinical commitments in relation to the COVID pandemic. A SLWG group was formed and meetings took place during 2021/22 to review and update SiSAT in light of the new UK Quality Standards in Imaging (QIS) project. This work will carry forward into 2022/23.

Quality Standard for Imaging (QSI) In Autumn 2021 the revised Quality Standards for Imaging were jointly

published by the Royal College of Radiologists and the Royal College and Society of Radiographers. SCIN Imaging Manager was invited to sit on the steering group of the review of QSI. SCIN will work with colleagues within SRTP and SCoR to look at how these can be implemented and used within Scotland to support improvement work.

FDG Supply across Scotland The University of Edinburgh, the main FDG production source for Lothian and Dundee and occasionally Glasgow, is to stop production for a minimum of 6 months due to a refit project. This leaves the service vulnerable to supply issues. Discussion within the PET-CT working group has highlighted the need for a Scotland-wide FDG supply strategy. The network is helping to explore ways to develop a national supply strategy and connect with procurement colleagues to identify solutions. An SBAR was raised to NSD's SMT Clinical Governance Group to highlight the issue and propose the development of a national supply strategy as a solution.

PET-CT guidelines update It is important that all clinical services regularly review any guidelines or clinical indications that they use to provide their service. During 2022 the PET-CT working group, in collaboration with national cancer networks, updated a further seven clinical indications for the use of PET-CT. This means we now have 15 refreshed guidelines in use across NHS Scotland. These have been published on the SCIN website <https://www.scin.scot.nhs.uk/scin-work/scin-pet-ct/pet-ct-guidlines/>. An overarching guidance document has also been developed collating all the published guidelines to act as a reference guide for both radiologists and referring clinicians.

Looking forward

The role of the Scottish Imaging Network (SCIN) is to improve imaging services by

- steering modernisation, including service change and redesign
- improving quality
- ensuring provision of an effective imaging service that anticipates and responds to user needs, future requirements and national guidelines.

SCIN is looking forward to an exciting year ahead with a robust and challenging workplan.

The introduction of a PET-CT PSMA service in Scotland will be a huge benefit to patients, with capacity and demand closely monitored within the PET-CT working group.

SCIN will continue to engage with NES, Royal College of Radiologists, Society and College of Radiographers, SRTP and the Scottish Government to develop a sustainable Imaging workforce.

It is hoped that after a 2 year break, SCIN will be able to host an in person education event towards the end of the year.

Finance

Whilst planned meeting costs have not been incurred, SCIN plans to utilise budget to raise awareness of the network amongst its stakeholder communities.

SCIN WORKPLAN – 2021-22

When defining network objectives please consider the Institute of Medicine's six dimensions of quality, which are central to NHS Scotland's approach to systems-based healthcare quality improvement:

1. **Person-centred:** providing care that is responsive to individual personal preferences, needs and values and assuring that patient values guide all clinical decisions;
2. **Safe:** avoiding injuries to patients from healthcare that is intended to help them;
3. **Effective:** providing services based on scientific knowledge;
4. **Efficient:** avoiding waste, including waste of equipment, supplies, ideas, and energy;
5. **Equitable:** providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location or socio-economic status; and
6. **Timely:** reducing waits and sometimes harmful delays for both those who receive care and those who give care.

Key

RAGB status	Description
RED (R)	The network is unlikely to achieve the objective by the agreed end date.
AMBER (A)	There is a risk that the network will not achieve the objective by the agreed end date but progress has been made.
GREEN (G)	The network is on track to achieve the objective by the agreed end date.
BLUE (B)	The network has been successful in achieving the network objective to plan.

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. Effective Network Structure and Governance [linked to Quality Dimensions 3,4,5,6]						
2021-01	SCIN will engage with the new, emerging strategic governance structure for diagnostic services in Scotland, and will be appropriately structured and resourced to ensure delivery of an effective workplan to deliver modernisation of imaging services	01/04/2021-31/03/2022	Steering Group and subgroup membership	The SCIN Steering Group met on a quarterly basis during 2021/22 and was fully engaged with developments around the new Strategic Network	SCIN is able to contribute to, and be guided by, the strategic vision for diagnostic services in Scotland, with the effective delivery of the SCIN network workplan to ensure continuation of progress	G
2. Service Development and Delivery [linked to Quality Dimensions 1,2,3,4,5,6]						
2021-02	SCIN will promote equity of access to Direct Access to CT of Chest/Abdomen/Pelvis for Patients with Unidentified Suspected Malignancy through annual audit and monitoring	01/10/2021-31/03/2022	Imaging Manager	This work is on hold due to the COVID pandemic	Equity of access for direct referral to CT for Patients with Unidentified Suspected Malignancy	R
2021-03	SCIN will promote equity of access to MR services for patients with IECDs, by taking forward the recommendations from the position paper outlining the service requirements to provide a safe MR service to those patients	01/08/2021-31/03/2022	SCIN Core Team/ Programme Manager	The position paper was updated and presented to the Imaging Executive Board in October 2021. Since then the work has been on hold due to COVID pressures.	Equity of access for non-cardiac MR examination to those patients with IECD	R

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	with IECD undergoing non-cardiac MR examination					
2021-04	SCIN will promote equity of access to Interventional Radiology by working with National Planning in the development of service standards and the provision of data	01/04/2021-31/03/2022	Clinical Reference Group	SCIN represented on National Planning Group and responded to recent consultation exercise on the standards. SCIN will be responsible for the ongoing monitoring of progress towards achieving the standards	A safe, equitable service across NHS Scotland with robust cover in place for interventional radiology services	G
2021-05	SCIN will work with colleagues at Scottish Government to develop a supply strategy for PET-CT across Scotland	01/04/2021-31/03/2022	PET-CT Working Group	Work has started on this and will be progressed during 2022/23	Ensure there is a sustainable supply of isotopes for PET-CT across Scotland	A
2021-06	SCIN will establish a National PSMA service by progressing the PET-CT Gallium workplan, and monitoring progress towards its delivery	01/04/2021-31/03/2022	PET-CT Working Group	National PSMA service is now live at the 4 sites across Scotland.	There is national oversight of PET-CT PMSA scanning, ensuring appropriate use and reduced variation	G
3. Stakeholder Communication and Engagement <small>[linked to Quality Dimensions 1,3,4,5,6]</small>						
2021-07	SCIN will support the development of sustainable imaging services through coordinated working with the Scottish Radiology	01/04/2021-31/03/2022	SCIN Core Team/Steering Group	Close links established and joint working with	An imaging service capable of national reporting, facilitated by	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
	Transformation Programme, by providing SCIN expertise and guidance on relevant topics, whilst ensuring communication channels are maintained between SCIN and SRTP			SRTP on a number of workstreams	robust governance and QA processes in place	
2021-08	<p>Continue to raise the awareness of SCIN and its work through:-</p> <ul style="list-style-type: none"> Refreshed communications strategy Newsletters (minimum 2 per year) Informative and up-to-date website, including members' area 	01/04/2021-31/03/2022	Programme Manager	Communication strategy was updated in July 2021 and a newsletter issued in December 2021.	Stakeholders are updated on the work of SCIN and have the opportunity to provide input. SCIN's work is enriched from the input of a wider range of stakeholders	G
4. Education [linked to Quality Dimensions 1,2,3,4,5,6]						
2021-09	SCIN will refresh their education and training strategy to help improve the knowledge and skills within the imaging community and its service users. This will include the delivery of 2 education events	01/04/2021-31/03/2022	Programme Manager/SCIN Core Team	No face-to-face events took place in 2021/22 due to the COVID pandemic	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. This will improve and enhance skills and improve patient care.	R

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5. Audit and Continuous Quality Improvement <small>[linked to Quality Dimensions 1,2,3,4,5,6]</small>						
2021-10	SCIN promotes a culture of continuous quality improvement, will refresh their Quality Strategy and re-establish the Quality and Data Subgroup. SCIN will continue to support the QI Programme for PET-CT through regular data collection and reporting	01/04/2021-31/03/2022	Programme Manager/ Programme Support Officer	The QI and Data subgroup was established with strong links to the National Data Project within SRTP and the Scottish Government. Plans have been made to publish a first Imaging Insights Report in late 2022. Monthly PET-CT data collection, with quarterly updates published on the SCIN website	SCIN will take an active role in promoting a culture of continuous improvement in imaging, articulated through an annual workplan to demonstrate intended improvements year on year, quantified from the perspective of the service user	G
2021-11	SCIN will support local quality measurement, by taking forward the recommendations from the revised Quality Standards for Imaging, framing them where possible as outcome-based standards linked to SiSAT	01/05/2021-31/03/2022	Imaging Manager	Work has started on mapping the current SiSAT tool with the new Quality Standards. The first SLWG meeting had to be delayed until October due to clinical pressures, but work is now well underway	Development of outcome-based standards with a staged approach, allowing departments to display stages, collect and provide evidence of good quality service and achieve accreditation on inspection	G
2021-12	By engaging with the NHS Education for Scotland, College of Radiologists, Society and College of Radiographers,	01/04/2021-31/03/2022	SCIN Steering Group/SRTP	Work was underway to re-energise links with Assistant Practitioners (AP's) across Scotland	A workforce that is trained and skilled to deliver the service of the future, including an	G

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	HEIs, Scottish Radiology Transformation Programme (SRTP) and the Scottish Government, SCIN will contribute to workforce planning, development and education to equip the workforce of the future. SCIN will provide clinical expertise with regards to how Advancing Practice roles are developed to ensure that these roles meet the 4 pillars of clinical practice			to encourage them to form their own Special Interest Group as a means of sharing information/views etc. The SCIN Imaging Manager has been working closely with NES to develop work-based modules informed by the SCIN service/ learning needs analysis. It was hoped that a pilot of the modules could take place by the end of 2021, but this was delayed slightly to March 2022	understanding of gaps in education and a clear way to address succession planning requirements.	G
6. Value [linked to Quality Dimensions 1,2,3,4,5,6]						
2021-13	SCIN will undertake an assessment of the value it has added through benefits realisation work to measure the impact of past SCIN workstreams	01/04/2021-31/03/2022	SCIN Core Team		An awareness of the extent to which SCIN has influenced the medical imaging agenda nationally	G

SCIN WORKPLAN – 2022-23

When defining network objectives please consider the Institute of Medicine's six dimensions of quality, which are central to NHS Scotland's approach to systems-based healthcare quality improvement:

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9. **Effective:** providing services based on scientific knowledge;
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1. Effective Network Structure and Governance [linked to Quality Dimensions 3,4,5,6]						
2022-01	The network will organise Steering Group and each sub-group meetings as required to ensure effective delivery of the 2022-23 workplan	01/04/2022-31/03/2023	Core Team		SCIN is able to contribute to, and be guided by, the strategic vision for diagnostic services in Scotland, with the effective delivery of the SCIN network workplan to ensure continuation of progress	G
2022-02	SCIN will engage with the new, emerging strategic governance structure for diagnostic services in Scotland, and will be appropriately structured and resourced to ensure delivery of an effective workplan to deliver modernisation of imaging services	01/04/2022-31/03/2023	Steering Group and subgroup membership		SCIN is able to contribute to, and be guided by, the strategic vision for diagnostic services in Scotland, with the effective delivery of the SCIN network workplan to ensure continuation of progress.	G
2. Service Development and Delivery [linked to Quality Dimensions 1,2,3,4,5,6]						
2022-03	SCIN will promote equity of access to Direct Access to CT of Chest/Abdomen/Pelvis for Patients with Unidentified Suspected Malignancy through annual audit and monitoring	01/04/2022-31/03/2023	Imaging Manager		Equity of access for direct referral to CT for Patients with Unidentified Suspected Malignancy.	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
2022-04	SCIN will promote equity of access to MR services for patients with IECDs, by taking forward the recommendations from the position paper outlining the service requirements, to provide a safe MR service to those patients with IECD undergoing non-cardiac MR examination	01/04/2022-31/03/2023	SCIN Core Team/ Programme Manager		Equity of access for non-cardiac MR examination to those patients with IECD	G
2022-05	SCIN will support the pilot Assistant Practitioner module at NHS Lanarkshire and produce an evaluation of the module to guide future developments	01/04/2022-31/03/2023	Imaging Manager		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	G
2022-06	SCIN will work with colleagues at Scottish Government to develop a Supply Strategy for PET-CT across Scotland	01/04/2022-31/03/2023	PET-CT Working Group		Ensure there is a sustainable supply of isotopes for PET-CT across Scotland.	G
2022-07	SCIN will monitor capacity and demand in relation to the newly established National PSMA service.	01/04/2022-31/03/2023	PET-CT Working Group		There is national oversight of PET-CT PMSA scanning, ensuring appropriate use and reduced variation	G
2022-08	SCIN will update clinical indicators for PSMA in Nov 2022.	?	?		Ensure referrals made to the PSMA service follow	G

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					the most up to date evidence basis	
2022-09	Refresh Radiography risk posters	01/04/2022-31/03/2023	tbc			G
2022-10	Review and update Reporting Radiographer Framework	01/04/2022-31/03/2023	tbc		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	G
2022-11	Explore the need for a nationally agreed set of MRI safety questions for referrals.	01/04/2022-31/03/2023	tbc		To ensure safe equitable access to MRI services across Scotland.	G
3. Stakeholder Communication and Engagement <small>[linked to Quality Dimensions 1,3,4,5,6]</small>						
2022-12	SCIN will support the development of sustainable imaging services through coordinated working with the Scottish Radiology Transformation Programme, by providing SCIN expertise and guidance on relevant topics, whilst ensuring communication channels are maintained between SCIN and SRTP	01/04/2022-31/03/2023	SCIN Core Team/Steering Group		An imaging service capable of national reporting facilitated by robust governance and QA processes in place	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
2022-13	<p>Continue to raise the awareness of SCIN and its work through:-</p> <ul style="list-style-type: none"> Refreshed communications strategy Newsletters (minimum 2 per year) Informative and up to date website, including members area 	01/04/2022-31/03/2023	Programme Manager		Stakeholders are updated on the work of SCIN and have the opportunity to provide input. SCIN's work is enriched from the input of a wider range of stakeholders	G
4. Education [linked to Quality Dimensions 1,2,3,4,5,6]						
2022-14	SCIN will refresh its education and training strategy to help improve the knowledge and skills within the imaging community and its service users. This will include the delivery of 2 education events	01/04/2022-31/03/2023	Programme Manager/SCIN Core Team		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. This will improve and enhance skills and improve patient care	G
5. Audit and Continuous Quality Improvement [linked to Quality Dimensions 1,2,3,4,5,6]						
2022-15	SCIN promotes a culture of continuous quality improvement. SCIN will continue to support the QI Programme for PET-CT	01/04/2022-31/03/2023	Programme Manager/ Programme Support Officer		SCIN will take an active role in promoting a culture of continuous improvement in imaging, articulated through an annual workplan to	G

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	through regular data collection and reporting				demonstrate intended improvements year on year, quantified from the perspective of the service user	
2022-16	SCIN will support local quality measurement, by taking forward the recommendations from the revised Quality Standards for Imaging, framing them where possible as outcome-based standards linked to SiSAT	01/04/2022-31/12/2022	Imaging Manager		Development of outcome-based standards with a staged approach, allowing departments to display stages, collect and provide evidence of good quality service and achieve accreditation on inspection	G
2022-17	SCIN will publish the first National Imaging Insights report	01/04/2022-30/09/2022	SCIN QI and Data Subgroup		NHS Scotland will have a clearer picture of imaging services activity and an agreed way forward to develop the data set further and use the information to target variation and improve quality	G
6. Value [linked to Quality Dimensions 1,2,3,4,5,6]						
2022-18	SCIN will undertake an assessment of the value it has added through benefits realisation work to measure the impact of past SCIN workstreams	01/04/2022-31/03/2023	SCIN Core Team		An awareness of the extent to which SCIN has influenced the medical imaging agenda nationally	G

