British Society of Interventional Radiology
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NHS 10 Year Workforce Plan - call for evidence document

Section1

Where have you delivered or observed new digital initiatives that improved patient care? For each example:

- **which professions, roles and skills were critical to successful implementation?**
- **were there any barriers to ensuring the right professions, roles and skills were involved?**
- **how did you overcome these barriers?**

Within Interventional Radiology (IR), digital initiatives are already transforming patient care and opportunity for digital development is ripe.

Four key digital examples have been observed as already improving patient care:

1) The day to day shift from paper forms to digital notes within the NHS has improved efficiency and therefore patient care. Barriers still exist within slow IT systems and lack of single log-in access to available platforms. The use of biometrics for logging in to digital tools could save valuable time if implemented.
2) Digital prescribing has improved patient safety by improving accuracy and speed of patient access to medication.
3) Regional-level PACS systems have significantly helped MDT discussions for regional services.
4) Use of AI in treatment pathways is already positively improving outcomes. For example, the use of AI in stroke mechanical thrombectomy delivery has resulted in documented shortening of diagnosis to needle time. Similarly pilot research projects using AI are showing positive applications. For example, a project using AI to aid renal cancer diagnosis based on CR imaging, a retrospective project at this stage but with positive outcomes highlighting the role of this tool at MDTs if used prospectively.

Where have you already seen or begun to deliver a shift from hospital-based care to community care? For each example:

- **which professions, roles and skills were critical to successful implementation?**
- **were there any barriers to ensuring the right professions, roles and skills were involved?**
- **how did you overcome these barriers?**

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In Interventional Radiology (IR), the opportunities for shifting care from hospital-based care to community care are plentiful.

The minimally invasive nature of certain procedures, allowing for day case procedures as alternatives to open surgery, supports patients to return home quickly after brief visits to hospital. This positions IR as a helpful extension to GP and community care. For example, day case EVARs enable a brief visit to a hospital for the procedure, supported by telephone follow-ups at home. The value of developing day case units was argued in *Lakshminarayan L, Bent C, Taylor J, et al. Developing day case units - imperative for optimal patient care in interventional radiology. Clinical Radiology 2023;78:295—300*

As the role of interventional radiologists increasingly shifts from technicians to clinicians, the opportunity to provide clear advice to GPs in post-consultation or post-procedural communications, allows for a more community-led approach.

A challenge as patient care shifts towards the community and may be delivered remotely, away from the hospital in which a patient is to be treated, is that when they arrive for an IR prep consultation before a procedure this can be the first time that a patient has seen a medical professional in person regarding their condition. This can lead to a need for social and medication support at these initial meetings, alongside IR prep. The requirement for clinical time in job planning for interventional radiologists to properly consent and inform patients is increasingly important alongside this shift to community care as outlined in *Morgan RA. Interventional radiology is a clinical discipline — the UK provision of interventional radiology services 2023 document. Cardiovasc Interventional Radiology 2024;47:1—2.*

Examples already exist where Community Diagnostic Centres (CDCs) have been utilised for IR procedures and some Trusts already have mobile IR suites. It is feasible that if fluoroscopy units and IR suites are added to CDCs, IRs would be able to deliver more of their work in the community. There is no reason why IR could not operate within mobile day case units, as is seen with cardiology.

Where have you already seen or begun to deliver preventative care services? For each example:

- **which professions, roles and skills were critical to successful implementation?**
- **were there any barriers to ensuring the right professions, roles and skills were involved?**
- **how did you overcome these barriers?**

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Whilst interventional radiology does not deliver preventative care directly, the benefits of preventative care services are seen by interventional radiologists receiving tertiary level referrals.

For example,

- Abdominal Aortic Aneurysm screening has allowed more elective procedures to take place and reduced the volume of acute ruptures.
- Community lung screening programmes which discover incidental findings, such as a renal tumour, can refer directly to interventional radiology.
- Providing acute slots for patients with critically ischaemic limbs can avoid hospital admission.

Section 2

Are there specific assumptions you use in workforce modelling? For example, how service redesign such as new community services or digital models of care might affect the numbers, deployment and/or skill mix of staff. Could you provide examples or data to support these assumptions? How do these assumptions impact on workforce supply and demand, including career and training pathways?

In workforce modelling, taking a holistic and evidence-based approach is critical to ensure that service redesign positively impacts patient outcomes.

In interventional radiology, considering digital data on vetting and reporting has allowed modelling for the number of PAs required, which has then informed modelling on consultant numbers. Though it is already clear from studies, such as *Najafi G, Lakshminarayan R, Haslam P, et al. Interventional radiology procedures, facilities, and workforce across England and Wales: a snapshot retrospective evaluation from 2017 to 2021. Clinical Radiology 2024;79:1481—9,* and current delivery of the IR GIRFT, that lack of data on the workforce and IR procedural load makes workforce planning extremely difficult.

Driving innovation is key to progression in medicine, so investing in research infrastructure and a varied research workforce is key to obtaining high quality, relevant evidence. Moreover, research active NHS trusts provide better patient care *(https://evidence.nihr.ac.uk/alert/participation-in-health-research-may-be-linked-to-better-care-and-performance/)*.

Identifying the most appropriate person for each role within a research project, with the most appropriate skill set will be more cost effective, more skill-efficient and optimise job satisfaction. For example, identifying the most appropriate staff for the delivery of an AI pilot to improve renal tumour classification was headed up by a research nurse with appropriate clinical knowledge and

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understanding of screening patients and the patient pathway. This enabled the development of a screening pathway/proforma which was then delegated to research assistants to screen and gather the data.

Section 3

What are the top digital initiatives you have seen or delivered that have successfully increased workforce productivity or reduced demand?

- **in the NHS, other sectors or internationally**

Digital initiatives have the potential within interventional radiology to significantly increase workforce productivity if implemented well.

Radiology is unique in being completely digital and providing a platform for communication with GPs and patients by sharing their imaging in tele-consults to help them understand their medical issues and deliver appropriate preventive messages.

Simple shifts, like the introduction of online meetings and MDTs, has improved the ability for teams and colleagues to communicate effectively and at short notice.

Software improvements like regional PACS systems improves image sharing and enables regional reporting of studies on call. For example, the use of the same radiology PACS software across the majority of South West England (especially Devon and Cornwall) means that automated alerts on CRIS enable users to identify addended reports (aids training) and those which need double reporting. Integration with requesting software enables automatic alerts of abnormal or critical findings to referring clinicians. All of this reduces risk of error and frees up admin staff/radiologist time.

Over time, IR will actively be able to use an 'electronic advice system' to help GPs choose patients for referral towards the appropriate IR procedures.

The use of AI in screening and in delivery of procedures, like stroke mechanical thrombectomy, enables increased workforce efficiency.

The use of robotic and non-invasive technology in some interventional procedures can also increase productivity.

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What actions have you seen or taken to identify and address gaps in training (pre or post-registration) that support delivery of the 3 shifts?

3 shifts in NHS 10 year Health Plan:

- **hospital to community**
- **analogue to digital**
- **sickness to prevention**

Actions already being taken within radiology to identify and address gaps in training are most evident in the shift from analogue to digital, specifically in relation to the adoption of AI.

Within events led by the British Society of Interventional Radiology, AI-related content in programmes is increasingly evident to raise awareness of engage collaborators in AI research projects.

At the College level, the Royal College of Radiologists has developed a suite of training offerings for radiologists regarding AI (Clinical Radiology: AI understanding data science and bias; Clinical Radiology: AI implementation and practice and the Global AI Conference which launched in 2025).

What policies or initiatives have you seen that have enabled the NHS to play a bigger role in local communities? For example, widening access, creating opportunities or supporting underserved groups.

Interventional radiology welcomes the introduction of community diagnostic centres which have the potential to take the pressure from busy acute hospitals.

The formation of public and patient groups to guide and inform the design and delivery of research is driving work to optimise relevance, value acceptability and deliverability of research in interventional radiology.

Where have you managed changing expectations and increased patient participation in their care through digital tools? Where applicable, how have you adjusted workforce planning to reflect this (for example, increased training to deliver new approaches to diabetes management to reflect new digital tools)

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As patients become increasingly active in managing their own treatment and care, the British Society of Interventional Radiology has developed content to support patients directly and their clinicians in offering informed care.

BSIR Patient Information leaflets are available for core interventional radiology procedures on the website *(https://www.bsir.org/patients-1/patient-information-leaflets/)* and a 'Find Your IR Doctor' function is available for patients to search for clinicians by regions and procedures *(https://www.bsir.org/patients-1/find-an-ir-doctor/)*.

Section 4

What policy interventions have you seen that have directly improved workforce outcomes and patient outcomes? For example, retention, staff wellbeing, reducing sickness absence, as well as better quality care.

The BSIR welcomes the government prioritising early adoption of minimally invasive health technologies.

Given the volume of demand for interventional radiology services and hours worked by an under-resourced workforce, the challenges with well-being and burnout are well evidenced within interventional radiology, for example in *Al Rekabi A, Chen M, Patel N, et al. Well-being and burnout amongst interventional radiologists in the United Kingdom. Cardiovasc Interventional Radiology 2023;46:1053—63.* This research demonstrated high prevalence of burnout amongst Interventional Radiologists in UK. Urgent measures are required to tackle the workforce shortage, recognition of IR workload and control of IR resources.

Without these measures, improved workforce outcomes will be challenging. A long-term plan for IR in the UK, to address the measures required, has recently been outlined in *Morgan R, Hamady M, Wah TM, Kasthuri R, McCafferty I, Haslam P, Alesbury N, Lakshminarayan R. Interventional radiology in the United Kingdom - A long-term strategic plan. Clinical Radiology 2025; 91*, which calls for a new IR Curriculum and Faculty status within the Royal College of Radiologists, to enable IR to reach its potential and improve outcomes for patients.

Regarding improved patient outcomes, initiatives built to listen to the patient voice and those with lived experience have enabled better quality research and care, as outlined by the NIHR, *https://www.nihr.ac.uk/get-involved/public-involvement*.

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What examples do you have of approaches that have successfully embedded strong core values into everyday leadership, decision making and service delivery?

The introduction of MDTs, whilst established practice now, continues to embed core values of multi-disciplinary decision making in to the NHS, improving patient outcomes and care.

At a clinical delivery level, holding regular team briefs and huddles embedded as normal practice in the working week, supports collective decision making and enables efficient service delivery. It also enables the celebration of achievements and space to build connections and improve morale.

Supporting the clinical workforce post-complications or situations which did not go as well as they should is important, but continues to be applied variably depending on teams and locations. Consistently applying tools such as hot and cold debriefs in to team practice would embed learning without blame or fear.

Section 5

Please include any other comments, information or evidence you would like to share as part of this call for evidence that you think would help deliver the ambitions of the 10 Year Health Plan. (Optional, maximum 250 words.)

The 3 core themes of the 10 Year Health Plan place Interventional Radiology (IR) at the forefront of opportunities which could enable the Plan to be delivered.

1) hospital to community

Significant investment in minimally invasive procedures delivered by IRs will move more patient care in to the day case elective arena, driving the majority of the care pathway from the hospital to the community.

2) analogue to digital

Implementation of improved digital tools, from PACS systems, online national lecture programmes for trainees, to AI projects, will improve efficiency across the NHS, including within IR.

3) sickness to prevention

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Greater visibility of IR, within the healthcare system, amongst primary care providers, and amongst patients and the public themselves, will enable increased referral directly to IR services; enabling conditions to be caught earlier and tackled through minimally invasive procedures, promoting speedier recovery and healing, without the need for extensive hospital stays.

References

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