

Effective Workforce Transformation

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Effective Workforce Transformation in Healthcare

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Roberto Anello | Managing Director, Northern Europe | Agfa HealthCare

HealthManagement.org spoke to Dr Nicholas Spencer, Chief Clinical Information Officer for Northern Europe, Agfa HealthCare and Roberto Anello, Managing Director for Northern Europe, Agfa HealthCare to gain insight on workforce transformation, collaboration networks, integrated care systems and application of technology and Artificial Intelligence in healthcare. Agfa HealthCare's class-leading solution, the Enterprise Imaging Platform, has demonstrated "real-life" values in revolutionising clinical workflows in hospital environments, and the Agfa associates were happy to lend their views on the status quo and future visions of this area.

All over the world there is a shortage of healthcare staff, and radiology departments are one of the most understaffed. Do you have any numbers on current shortages in the U.K., and how do you foresee the future in terms of staffing in radiology?

Nicholas Spencer: Shortages in the healthcare workforce are not unique to the U.K. Fortunately for radiology services, workers are both technically advanced and skilled at adapting to the innovative technology that helps them be more efficient. In terms of numbers, there are indeed shortages in the U.K; the Royal College of Radiologists (RCR) conducts an annual census, and, at present, there are around 10% vacancies against a workforce of just over 4000 consultants. Some of those posts have been vacant for more than a year, and so there is considerable reliance on in-sourcing and outsourcing to keep up with demand. The Society and College of Radiographers also monitors its available workforce, and there are significant shortages in the U.K. radiographic workforce as well. Radiology services undoubtedly are stretched - teamwork and the significant technologies which we have at our disposal play a part, and in general, services just about manage to keep going.

Roberto Anello: From a solutions and digital perspective, we focus on optimising the tools that we provide clinicians and the systems that they use. It's important that we offer the right solutions that are easy to use, offer prioritised task management and can speed up clinicians' workflow. It's vital that we support our clinicians and end-users with the best solutions possible given that the healthcare environments continue to be challenged. It is important that, when a

radiologist is at their workstation, the solutions are easy to use, optimised, quick, and give them time back. Artificial Intelligence (AI) is prevalent and now being used in clinical practice to turbo charge clinicians' workflow, which is an exciting journey to be on with clients. The other dynamic consistent across all regions and geographies is the capability to share images, workflow, and reports for peer review and clinical review, or to assist decision-making and share work. Integrated care systems (ICS) and National Systems share this requirement, and similar image sharing approaches are being developed in many regions. Therefore, our tools are designed and engineered to support workflow sharing across communities of care to help improve outcomes.

Given this staff shortage, what are the consequences for patients and staff?

NS: Everybody talks about how long patients wait for investigations. Most waits are very short and proportionate to the urgency of the investigation that's being planned. However, patients waiting for scans, results and waiting to see the referring doctor causes additional anxiety. There is a need for radiology services to be as agile as possible, prioritise work appropriately, and communicate well with patients and referrals. It is also important to consider the consequences of a shortage in the workforce for the people delivering it because the radiology workforce is all about providing care, especially during the diagnostic phase of a patient's journey. The staff are working under continual pressure, day and night. Yet, healthcare workers in radiology keep giving care and striving to deliver results and connect with patients to ensure they have a good experience.



What has been done to solve these issues on the local and national levels by individual hospitals and at the NHS level?

NS: There are ongoing recruitment drives and discussions with policymakers and the government about increasing training numbers. The U.K. has a clear plan that people should be able to work at the top of their license, whatever their skills and competencies. We're building a multi-professional workforce in radiology, more diverse than just radiologists and probably ahead of the curve in terms of other geographies. Also, as we've gone through these difficult and challenging times related to the pandemic, there has been a huge effort to support staff and ensure they are kept as well as possible through wellbeing initiatives, performance reviews and a variety of other things to encourage and support them to continue to be able to work. Retention of staff in the longer term is also important.

One of the initiatives being explored in the NHS, with considerable investment underway, is around community diagnostic centres. Capacity constraint has been a problem in hospitals where there is a mixture of both elective and emergency patient flow. This can sometimes be difficult for patients. It is recognised that the number of facilities in the U.K is not at the level they are in other countries. Investment in community diagnostic centres and integrated care systems in the U.K. are going to provide extra capacity and help separate acute, and elective patient flows to give a better experience and enable patients to have investigations closer to home.

How do you at Agfa HealthCare support your customers to address these challenges?

RA: Enterprise Imaging (EI) is Agfa HealthCare's best-in-suite radiology solution, with functions and features to optimise clinical workflow. EI also includes a leading zero-footprint viewer designed for clinical teams, seamlessly linked with the Electronic Medical Record (EMR). Imaging and reports can be accessed from desktop, a tablet, or a phone. The key focus is enabling clinicians to access our solutions anytime, anywhere.

Enterprise Imaging's functions are further enhanced by integrations with communication solutions like Microsoft Teams, so you can have a dialogue with a clinical colleague or refer a study and have a live conversation with multiple clinical colleagues on a challenging case. Furthermore, AI is embedded within our EI solution through the RUBEE™ for AI platform, seamlessly integrating FDA approved algorithms within the workflow. Overall, our goal is to offer the right tools at the right time, on any device, optimising and enhancing the clinical experience to support what is a very challenging clinical environment at present.

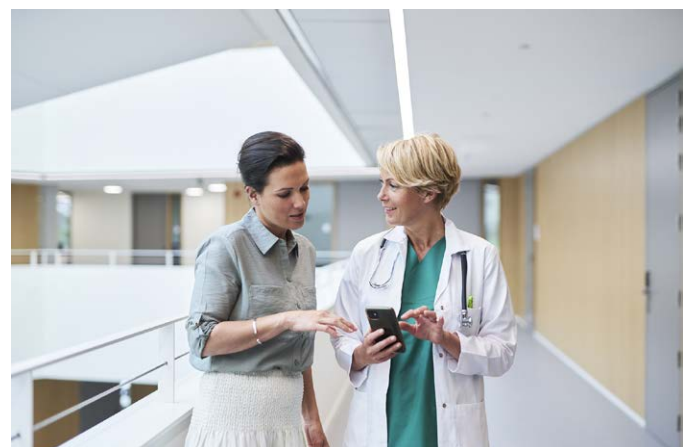
NS: It's also fair to say that the focus on AI has been on assisting interpretation, but Agfa HealthCare provides tools that can assist with triage, prioritisation and smart workflow,

and moving through enhancing visualisations, including business intelligence. We see the breadth of AI coming soon, which will help with efficiencies and ultimately, the patient experience.

Collaboration within and between hospitals is key. In the U.K, we see the creation of the ICS. How does Agfa HealthCare contribute to these, and how do its technologies support this transformation?

NS: In the last 12 to 18 months, we've seen the emergence of ICS. They're specifically designed to nurture the cooperation between the healthcare economy and the partners within the ecosystems of local health and social care. This is enabling sharing of clinical information, with appropriate data security to promote that collaboration and to facilitate access across services, at the right place at the right time. Within our ICS, collaboration between expert clinicians within regions is enabling healthcare services across the clinical community, not just within one care setting.

Agfa HealthCare's image management solutions focus on this and have some recognisability in that space. We also have a XERO Exchange Network (XEN), supporting a networked imaging collaborative in Yorkshire that allows clinicians the ability to view the imaging and timeline across the system of radiologists. They can launch a solution from their Enterprise Imaging desktop and can speed up access to those images, download them for review alongside a study being reported and enable them across the diagnostic desktop viewer. Integrated Care Systems are emerging and being used live, and our solutions support that. That is something we want to replicate across all communities and clients.



Agfa HealthCare supports the Yorkshire Imaging Collaborative. Can you describe the collaboration and its effect on staff and patients? Where do you see the progress in the future?

NS: As a clinician working in Yorkshire, I was part of the process that created the Yorkshire Imaging Collaborative (YIC), and I was engaged as clinical lead during YIC's early



years. We began as a collective procurement so that seven different institutions could build a PACS contract and begin image sharing as part of its future solution. The YIC delivered a common ecosystem, an intuitive PACS across the region. That meant the workforce that moved between different institutions had that common platform and familiarity. It provided a web viewer that enabled people to look at imaging acquired in other institutions. It facilitated urgent clinical care, such that if a patient who was critically ill had imaging in one institution, it could be viewed immediately in another institution. That's the benefit of Agfa HealthCare's XERO Exchange Network (XEN). This has also improved patient pathways by reducing the number of repeat imaging studies required. It has also enabled assistance between institutions where there are shortages of sub-speciality. There are several use cases where services have been sustained and enhanced by this collaboration.

Image sharing and the concept of imaging networks are now well-established in the U.K and recognised to be a central component in the EI solution for delivering greater diagnostic capacity. We've already alluded to the emergence of community diagnostic centres. Collaboration is the key and going forward, it will help us deliver better services that are more accessible and closer to the patient's homes.

RA: In the environment we're in today, there is a combination of digital ecosystems that leverage different imaging systems, so there is a lot of focus on integration or sharing across clinical boundaries. We are seeing multiple acute systems coming together as a result of Integrated Care Systems and they may use different PACS, because there are existing contracts in place and hospitals have the decision to make on if they are to be renewed or replaced. What is exciting is that image sharing capabilities are already available between acute systems using the same EI system, which enables quicker clinical outcomes. What is new is sharing workflows and connecting different PACS - that will make a real difference, saving hospitals money and time. We have an agnostic solution coming in our EI Platform which will be a game changer. Our solution will have the capability to transfer patient work lists to and from one acute system to another, regardless of system, so the technology is moving at a pace that compliments the future healthcare direction too.

NS: I'm going to expand on that with a specific use case. In Yorkshire there are two adjacent imaging networks, and using Agfa's Xero Exchange Network (XEN) technology, we have successfully connected a local hospital with a remote tertiary paediatric radiology service almost 50 miles away. We are using XEN to connect these two networks to enable better access to experts. This also fits the vision of the UK's Royal College of Radiologists (RCR) for networked services.

How does I.T support and nurture such transformation projects?

NS: The infrastructure in the UK has a secure high bandwidth network between institutions. The Health and Social Care Network (HSCN) provides a reliable, efficient and flexible way for health and care organisations to access and exchange electronic information in the NHS.

RA: Over the last 24 months, we saw how COVID impacted the world and how digital partners working collaboratively with clinical teams can help. Technology and IT leaned in towards investments to support clinicians working from home and delivering collaborative tools to deliver care - this is now the norm. Clinical advocates in our client community are leading the changes and driving the message of what IT can deliver. It is about blueprinting that and evangelising it in a way that can be replicated. It's been immensely helpful having clients promote their digital successes and talk positively about the efficiencies and the optimisations that can be achieved using IT. Our clients are exploring new technologies as much as possible to enable improved ways of working together and crossing larger healthcare geographies.



Does it increase patient satisfaction?

NS: Patients have a better experience because of this. But it isn't as obvious to them that this is happening because radiology is a system in the background. People are very reliant on radiology services to move pathways forward, and the seamless nature of image sharing is something that can facilitate care.

RA: The right word is seamless. That is how we want it to feel for our clients - seamless. But from a patient perspective, it's always just expected. Therefore, having the right solutions creates an environment where a clinician can operate in a calm, optimised way. Agfa HealthCare's clients feel great about the solutions they use to support that environment.



Implementing solutions like Enterprise Imaging to support collaboration networks etc., requires a close collaboration between clinicians and the IT department. What do your most successful clients do? Any recommendations or best practices that you can share?

NS: When the Yorkshire Collaborative was initially formed, people saw it as a procurement solution. It got people to talk together while helping them understand and address their own institution's priorities. It also enabled the cross-fertilisation of working practices and problem-solving and enabled them to deliver a common solution that worked well. The PACS Managers Group, which Agfa HealthCare supports, meets quarterly, and has a dialogue in between meetings so that if they come up against a particular problem, somebody in the network knows how to solve it. It's all about collaboration, teamwork and the delivery of seamless services. In terms of success, it's good communication and learning from one another.



RA: All our clients invest in the right stakeholder engagement. Shared IT and clinical projects are where we get the best success as there is a combination of the best set of resources. Roles like the Chief Clinical Information Officer, Lead Clinician and executive sponsor understand what we're trying to achieve in a project, ensuring that it offers value and achieves the

desired outcomes. The cohesion between IT and clinicians delivers the best projects. It's best to have a one-on-one relationship with the client project team, but it works particularly well when you have IT and clinicians represented in one team because it's a change project, not an IT project.

Together with BBC Storyworks you have created a short documentary on Leeds Teaching Hospitals that shows how technology and Enterprise Imaging have enabled greater flexibility and a better work-life balance and faster/better patient care. Can you elaborate on that?

RA: Agfa was fortunate to engage with one of the largest hospitals in the NHS - Leeds Teaching Hospitals. We enhanced the clinical experience, enabling home working and a consistent way of working across clinical and hospital environments. We saw that Enterprise Imaging is ready for the NHS community and has demonstrated how it can support diverse clinical settings with an emphasis on patient care and staff wellness.

The BBC story showed the journey of how our client has revolutionised Imaging using smart technology and demonstrating the versatility of Enterprise Imaging. We're proud of the work we've achieved together. The footage demonstrates a diverse set of voices within an NHS network and how many clinicians take care of a patient during their journey. We can see how that transition modernised a radiology platform, allowing interconnected working through various hospital sites. That flexibility and exchange of tasks between locations at any time, demonstrate how Leeds Hospital invested for their patients and clinicians, improving outcomes and supporting healthcare professionals' wellbeing. We've been given the opportunity to showcase some of that. We're proud of the partnerships that we have with our clients and we think it's making a real difference in the industry. We're also proud of the NHS and the work they do and we know we can support their requirements as they evolve in a very challenging clinical environment. ■



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