

NHS Improvement - Diagnostics
Top tips to overcome the
challenge of commissioning
diagnostic services

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Commissioning diagnostics services is complex, but it is essential to get it right to deliver the best care for patients.

This short guide presents top tips for commissioners to meet the most common challenges in the delivery of diagnostic services. As the National Directors for Diagnostics (endoscopy, imaging, pathology and physiological diagnostics), we consider these top tips are key to delivering high value, effective, and timely diagnostics services which will support all clinical pathways.

The document draws on the experience and expertise of NHS Improvement diagnostic teams over the last 10 years in piloting service redesign with clinical teams. It is supported by numerous examples and quantifiable evidence which can be found in its companion document 'Directory of Diagnostic Services for Commissioning Organisations'.



We hope you find it useful.

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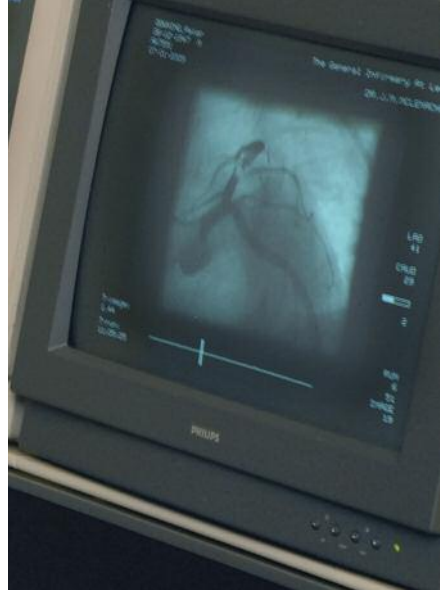
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Diagnostics, Department of Health

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Develop a shared understanding of the end to end diagnostic pathway from request to result being acted upon



- Commissioners and service providers should have a joint understanding of what defines quality and value in diagnostic services which allows for a good patient experience.
- This understanding will inform the development of a set of best practice key performance indicators (KPIs) common across all diagnostics which will support improvements in quality, safety, service delivery, costs and patient experience by, for example, measuring continuous service improvement or reducing variation in service standards.
- Service specifications and standards could be used to support enhanced local tariffs to encourage compliance with best practice and should include:
 - guaranteed and predictable turnaround times for each test – including reporting turnaround times and clinical action following availability of the diagnostic report
 - right first time approach to reduce errors, improve safety and reduce waste
 - service accreditation which reflects the needs of patients for both patient facing services and those, like pathology, where direct patient contact is more limited
 - standard reporting templates.
- Key Performance Indicators (KPIs) will highlight how diagnostics are key to the delivery of all clinical pathways and also where opportunities exist for improvement across the wider healthcare system. Examples could include:
 - reduced length of stay if inpatients can be imaged seven days per week
 - admission avoidance where prompt access to diagnostic tests and results in A&E or outpatient clinics will prevent unnecessary hospital admissions or clinic attendance
 - earlier diagnosis where earlier treatment results in improved outcomes.



*Recognise the need
for an effective
infrastructure to
support diagnostics*

- Transport and administration functions are key to service delivery. An understanding of how these can influence efficient patient flow, equipment and staff utilisation is key to effective productivity and therefore the impact diagnostics can have on the whole healthcare system.
- A good supporting infrastructure should:
 - provide regular transport of samples to reduce batch sizes¹ in laboratory testing; improve turn-around times and ensure faster results
 - operate seven days a week where required to reduce inappropriate retesting where samples are time expired and/or spoiled



- provide adequate portering services to support patient flow and enable effective use of high value equipment and increased productivity.
- provide vacuum systems where appropriate to improve flow of pathology specimens; reduce delays in diagnosis; and the impact of batching²
- communications with evidence based requesting systems as mechanisms to ensure the right test is done at the right time to reduce inappropriate/ repeat requests; and highlight unexpected results to the referrer
- support the use of next day postal delivery and SMS systems to inform patients of their appointments in a timely manner. This reduces wasted appointments where patients fail to attend or cancel too late for the appointment to be re-offered.

¹ Batch size - The designated number of investigations/samples which must be received before the group are processed.

² Batching - Gathering together a group of investigations, for example, pathology specimens and waiting until a designated number has been received before they are processed.



*Support the
introduction of
integrated IT
systems*

- Integrated IT enables significant reductions in waste. Digital solutions improve staff productivity, reduce duplication, facilitate information sharing and provide integration across healthcare providers and between diagnostics specialties. Examples include:
 - voice recognition and digital dictation as a standard for reporting across all diagnostic specialties to improve report turnaround times
 - extending the use of Picture Archive Communication Systems (PACS) from imaging to other services such as endoscopy, histopathology and dermatology to give clinical access to digital imaging to improve patient care
 - supporting investment in capital equipment to improve access to technology for example barcode readers/scanners to speed up processes and reduce error
 - capturing real time data and using information dashboards to deliver timely results and facilitate capacity assessment.

Promote the use of capacity and demand data for both short and long term service provision and planning

- Ensuring patient and carer experience is captured appropriately (for example by using regular formal patient feedback and questionnaires) forms the basis for service redesign – especially where direct patient contact is limited or absent.
- Patients and carers can often provide a view on how diagnostic services integrate across multiple providers of emergency, elective and specialist pathways of care.

- Having the ability to capture real time capacity and demand data supports emergency, operational management and longer term planning. The knowledge and skills to use this data should be embedded in routine care and understood by clinical teams as part of their day job. Access to the data:
 - reduces the need for reactive operational management in the form of costly short term waiting list initiatives
 - reduces variation in waiting times for patients
 - eliminates inappropriate carve out³
 - promotes effective booking systems and an understanding of single queue⁴
 - leads to appropriate demand management
 - begins to inform long term planning and escalation plans.

Ensure patient and public engagement and experience (PPEE) informs the delivery and design of services

³ Carve out - Ring fencing the time of a clinical expert/piece of specialised kit or dedicating resources or facilities for a particular group of patients or diagnostic tests.

⁴ Single queue - Managing patient flow through the health systems on a first come first served basis, where patients are seen in the order that they are referred to the service.

Maximise the use of qualified and support staff

- Ensure appropriate use of the skills of both qualified and support staff.
- Promote the adoption of proven skill mix opportunities (and reduce variation in adoption across healthcare providers) to ensure that staff with a defined skill set perform only those tasks appropriate to their role. This will increase productivity and increase the usage of high value equipment.
- While evidence based examples of best practice in skill mix have been adopted across a number of diagnostic specialisms, others need to roll out similar working practices to improve service delivery. Examples for wide scale adoption include:
 - biomedical scientist reporting of histopathology slides
 - further expansion of nurse endoscopists
 - use of assistant practitioners for image acquisition in radiology
 - maximising skills across diagnostic disciplines and professional groups.

Integrate service improvement into effective operational management practice

- Continuous quality improvement (CQI) tools and techniques need to be integrated into daily working practice and become a generic competency for all staff in order to meet the financial and demand challenges in diagnostics.
- There is a need to promote an understanding that achievements from elsewhere can be adapted locally to deliver significant benefits and increase productivity. A directory⁵ has been developed to increase the effectiveness of service improvement efforts by:
 - improving sustainability as the tools are used and understood by teams
 - encouraging staff to walk the patient pathway; 'go see' and then follow this up by implementing changes
 - developing the improvement skills of all staff
 - embedding measurement for improvement into everyday work.

⁵ Directory of Diagnostic Services for Commissioning Organisations - contains links to diagnostics policy documents, diagnostics service improvement and case studies



*Maximise equipment
and space utilisation*

- Capital planning, room capacity and equipment need to be aligned to service need and demand. Consideration should be given to using assets in a seven day service delivery model, where increased usage would improve patient flow across the clinical pathway to:
 - reduce the mismatch in operating hours of departments/wards/clinics
 - allow for the use of capital equipment to support the 'economy of flow' not 'economy of scale' and prevent the prioritisation of less urgent outpatient case above more urgent inpatient investigations. When patients are treated quickly and discharged appropriately, this avoids inappropriate admissions and reduces length of stay
 - reduce excess capacity and waste in some diagnostic specialities, for example pathology analysers
 - improve longer term capital planning programmes.

Build strong operational leadership and management of diagnostic services to focus on whole system performance

- Seeing diagnostics as part of the integrated whole system and understanding the impact of diagnostic service delivery on multiple clinical pathways would:
 - reduce dips in activity and performance due to annual leave and public holidays
 - reduce silo working⁶ and improve the integration between co-dependent pathways of care
 - enhance ownership of data for performance and improvement
 - allow for a greater understanding of 'the bigger picture' and how diagnostics can transform clinical pathways and impact positively on length of stay and admission avoidance
 - increase opportunities to incentivise redesign by encouraging innovation and creative solutions within the whole system, for example using tariff negotiations; avoiding disincentives



- reduce the chance of inappropriate additional activity to increase income
- highlight the key need to identify a clear management, and performance and governance structure, where diagnostic services straddle several directorates.

⁶ Silo working - Working without explicit links and interfaces with other teams; working without ensuring interconnecting processes dovetail to ensure efficient patient flow.



CANCER



DIAGNOSTICS



HEART



LUNG



STROKE



NHS Improvement

NHS Improvement

NHS Improvement’s strength and expertise lies in practical service improvement. It has over a decade of experience in clinical patient pathway redesign in cancer, diagnostics, heart, lung and stroke and demonstrates some of the most leading edge improvement work in England which supports improved patient experience and outcomes.

Working closely with the Department of Health, trusts, clinical networks, other health sector partners, professional bodies and charities, over the past year it has tested, implemented, sustained and spread quantifiable improvements with over 250 sites across the country as well as providing an improvement tool to over 2,400 GP practices.

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