NHSI Operational Productivity
Pathology Consolidation Programme Update

Event: Diagnostics North East conference 2018
Newcastle upon Tyne

Presenters: Professor Tim Evans, National Clinical Director for Operational Productivity
David Wells, Head of Pathology Consolidation

Date: 15th March 2018
Aim of the Programme

• The clinical workforce productivity programme aims to improve the quality of the clinical service provided to patients, and the efficiency with which it is delivered.

• To that end we aim to optimise the deployment of the clinical workforce – doctors, nurses, pharmacists, allied healthcare professionals (AHPs) and technical & scientific staff - by working with Trusts to introduce systems and processes that meet the varying needs of patients 24/7, are responsive to changes in activity and workload, and improve the professional development of the clinical workforce.

• In this endeavour, our work will be fully integrated with that of the Getting it Right First time (GIRFT) programs which identify ‘what good looks like’ in each of 32 clinical specialties, such that the optimal workforce composition and disposition for each is delivered.
Metrics and variation

- We worked with cohort of 32 to develop metrics
- ATC helped us identify the opportunity but we realised we needed different perspectives
- Identified the key categories
Overview of the final report: £5bn savings

15 recommendations involving:

• Optimising application of clinical resources
• Optimising use of non-clinical resources
• Quality & efficiency throughout care pathway
• Implementation & engagement with trusts
<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
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<tbody>
<tr>
<td>Jeremy Marlow</td>
<td>Executive Director of Operational Productivity</td>
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<tr>
<td>Mark Ward</td>
<td>Director of Engagement and Implementation</td>
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<tr>
<td>Rhona Collins</td>
<td>Regional Productivity Director*</td>
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<tr>
<td>Simon Corben</td>
<td>Director and Head of Profession for Estates and Facilities</td>
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<tr>
<td>Paul West</td>
<td>Director of Procurement &amp; Corporate Services</td>
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<tr>
<td>Luke Edwards</td>
<td>Director of Sector Development</td>
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<tr>
<td>Emmi Poteliakhoff</td>
<td>Director of Model Hospital and Analytics</td>
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<tr>
<td>Professor Tim Briggs</td>
<td>National Director of Clinical Quality and Efficiency</td>
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<tr>
<td>Rob Hurd</td>
<td>CEO for GIRFT Programme</td>
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<tr>
<td>Andy Howlett</td>
<td>Clinical Productivity Operations Director</td>
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<tr>
<td>Rhona Collins</td>
<td>Direct support and guidance to trusts</td>
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<td>James Cook</td>
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* Regional Productivity Directors report to Executive Regional Managing Directors and the national Executive Director of Operational Productivity jointly
** Programme delivered as a partnership between Operational Productivity Directorate and Royal National Orthopaedic Hospital Stanmore

- Business support
- Project and programme management
- Coordination and benefits tracking
- Direct support and guidance to trusts
- Liaise and coordinate with other NHSI teams
- Estates strategy and planning
- Hard facilities management policy and solutions
- Soft facilities management policy and solutions
- Procurement
- Corporate Services (Finance, HR, Procurement, IM&T)
- Clinical Services (commercial aspects)
- Model Hospital development
- IT
- Metrics / analysis
Output Metrics for each GIRFT specialty, reported monthly/less frequently (MH)

What good looks like': Optimal workforce for each GIRFT work stream

- Nos, FTEs
- % JPs (7 day)
- Sessions
- DCC/SPA
- Locums
- E’tra Duty Pay

- Numbers
- eRostering
- Job plans
- L’ms/agenc y
- DCCs (contact hrs)

- eRostering (how, how well)
- CHPPD
- Cost per CH
- Enhanced care

- Prescribe %
- Pt facing hours
- Sunday ward presence > 5 hrs
- AMU/ITU

- Cost of service
- No of tests
- FTE staff
- Test complexity

Information Technology
The Next Step in a 10+ year Journey

2006

Report of the Review of NHS Pathology Services in England
Chaired by Lord Carter of Coles

2008

Report of the Second Phase of the Review of NHS Pathology Services in England
Chaired by Lord Carter of Coles

2012

The Pathology Services Commissioning Toolkit

2016

Operational productivity and performance in English NHS acute hospitals: Unwarranted variations
An Independent Report for the Department of Health by Lord Carter of Coles

Pathology by Numbers

- 136 Non-specialist acute trusts
- 105 pathology providers
- 1.12 billion tests
- 27 thousand FTE
- £2.2 billion delivery cost
Background

• Case for change identified through successive Carter reports
• Operational Productivity Directorate commissioned large scale data collection
• This data has allowed for the identification and quantification of sources of unwarranted variation
• Modelling of the data has identified opportunities for efficiency savings
The central data analysis toolkit allowed the team to consider data on national, regional, provider and even departmental level. This has been shared with trusts to identify areas of variation and opportunities to align with best practice. As shown below, this can include staff band distribution.
Pathology Under the Microscope

Variation In Use Of MLA And BMS Staff In Acute Teaching Trusts

Average Non-Pay Cost Per Blood Sciences Test For Large And Medium Acute Trusts
Analysis: Benchmarking

“The objective of benchmarking is to find examples of superior performance and to understand the processes and practices driving that performance. Companies then improve their performance by tailoring and incorporating these best practices into their own operations—not by imitating, but by innovating.”
Pathology Workforce Efficiencies

Data collected as part of identification of opportunities through Pathology consolidation highlight the significant workforce efficiencies that could be achieved.

- Data gathered from acute Trusts in England shows significant variation in skill mix
- Plans for Pathology consolidation across STPs/geographical clusters will unlock potential to rationalise workforce to achieve greater efficiency
- Consolidation will also enable significant productivity improvements through economies of scale

### Variation in Staff Efficiency by Trust Category

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>To Average</th>
<th>To upper 25%</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Category A</td>
<td>£10,926,000</td>
<td>£5,856,000</td>
<td>£16,782,000</td>
</tr>
<tr>
<td>Category B</td>
<td>£7,882,000</td>
<td>£2,930,000</td>
<td>£10,812,000</td>
</tr>
<tr>
<td>Category C</td>
<td>£2,915,000</td>
<td>£521,000</td>
<td>£3,436,000</td>
</tr>
<tr>
<td>Category D</td>
<td>£9,256,000</td>
<td>£2,121,000</td>
<td>£11,377,000</td>
</tr>
<tr>
<td>Category E</td>
<td>£5,011,000</td>
<td>£1,562,000</td>
<td>£6,573,000</td>
</tr>
<tr>
<td>Category F</td>
<td>£2,167,000</td>
<td>£773,000</td>
<td>£2,940,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£38,157,000</strong></td>
<td><strong>£13,763,000</strong></td>
<td><strong>£51,920,000</strong></td>
</tr>
</tbody>
</table>

Based on the information provided by Trusts and comparison of performance across Blood Sciences, Microbiology and Cell Path.
- A saving of c.£50 million can be achieved in the short term by targeting trusts with below average work rate efficiencies and achieving a staff saving of up to 10%
- A further saving of c.£29 million can be realised if all trusts in a specific Category achieve staff efficiency in line with the top 25%.
Rationale for Networks & Consolidation

• Drives up clinical quality, better for patients
  • Faster turnaround times
  • Better access to sub-specialty expertise
  • Access to new technology
  • Reduces risk of “postcode lottery”

• Improves service resilience

• Economies of scale
  • Purchasing power for equipment, IT systems and consumables
  • Better utilisation of expensive capital equipment
  • Concentration of expertise

• Nationally excess capacity, yet locally workforce shortages
  • Networking across wider geographies provides a solution to localised recruitment challenges
What Good Looks Like

In addition to collecting data and modelling opportunities for improvement, the NHSI team is also engaging with a broad range of stakeholders to define the characteristics of an effective networked pathology service. Some of these include:

- **Clinical Leadership:** Clinical team must take responsibility for delivering a high quality, appropriate but cost effective service and manage the relationship between pathology and other clinical disciplines.

- **Partnership Model:** Informal networks are unable to agree and deliver change fast enough, and have under-developed management structures for effective clinical governance.

- **Executive Participation:** Board support, coupled with strong, experienced leadership is critical to the success of any consolidation project.

- **Customer Service:** The need for a strong customer focus, supported by the appropriate staff and infrastructure, is essential within any large organisation, including pathology, whether public or private.

- **Procurement:** Procurement continue to deliver cost savings through better contracting and a more competitive market place. However, standardising the procurement process and building on best practices will save significant time and effort and improve the comparability and management of contracts.

- **IT:** A standard LIMS (Laboratory Information Management System) is a key enabler for pathology consolidation. Of equal importance is a dedicated IT team that can manage and optimise the various systems.

- **Change Management Support:** Consolidation of pathology is a resource intensive project that requires a dedicated team.

- **Logistics:** The logistics department is a primary customer contact and a key enabler in delivering effective consolidation.
**Data Sources:**

Initial inputs will require manual intervention by laboratory management but this should be automated via three sources:

**LIMS Data**
- Accurate, comparable volume data is essential.
- Using LIMS data will require pathology providers to map current test codes against NHS Digital Standard Test List.
- A pilot project with 5 teaching hospitals is underway to test the usability and comparability of LIMS data aligned with the standard test list.

**ESR Data**
- ESR data should ideally be used as input for workforce numbers.
- Currently the use of ESR codes are not used in a standard format and 15/16 data shows significant variation.

**Procurement Data**
- Non-pay cost detail for pathology is not currently accessible via centralised financial data collection.
Analysis & Modelling

- Patient Flows
- Population Size
- STP Boundaries
- Existing Partnerships
- Modelling

Analysis of 2015/16 Data

- 29 Networks
- £200 million opportunity
The 29 networks along with modelling has been published by NHS Improvement covering all acute and specialist hospital Trusts.

Executives from each Trust have been written to explaining the need for collaborative pathology partnerships.

These letters outline the suggested networks and ask for Trusts to respond with their willingness to proceed or if they have alternative networks they would like to progress with.

Responses have now been received from Acute non specialist Trusts, and we are expecting responses from Specialist Trusts by the end of January.

The vast majority of these responses have been positive, recognising the need for change and committing to proceed and scale and pace. All Trusts that responded have now expressed willingness to work at a greater scale.

At the operational level, site visits have been occurring to explain the methodology of the modelling in detail and to help Trusts develop their thinking around specific challenges they may face.

Regional leads have been appointed covering the North, South, Midlands and London. These leads have been active in following up the letter to executives scheduling workshops with Executive teams.
Activity so far


2. NHS Improvement facilitating workshops with each network across the country.

3. Review of acute Trust counter proposals, a refreshed network map to be published in the spring.

4. Mapping Specialist Trusts into networks to consolidate and collaborate with proposed networks complete.

5. Launch of Pathology Toolkits
   www.improvement.nhs.uk/resources/pathology-networks-toolkit/
The state of the nation

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of Trusts</th>
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<tbody>
<tr>
<td>Accepted NHST proposal</td>
<td>119</td>
</tr>
<tr>
<td>Accepted network principle, but suggested alternative configuration</td>
<td>14</td>
</tr>
<tr>
<td>Seeking to maintain status quo</td>
<td>2</td>
</tr>
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</table>

[Diagram with color-coded data related to response and number of trusts]
Next Steps

1. Assessment of responses from specialist Trusts.

2. Constitution of a specialist testing committee to understand how these services could contribute to the operational efficiency programme.

3. NHS Improvement continuing to facilitate workshops and support networks as they begin to form.

4. Quarterly and annual data collections.

5. Re-launch of the Pathology Quality Assurance Dashboard (PQAD).

6. Continue to work towards a single test list.
   - Pilots have mapped 94-98% of all activity
Pathology Quality Assurance Dashboard

• This is a tool for individual Trusts to assess and manage the benefit Pathology services can deliver. It is not a contractual tool to manage the service.

• Timely collection of appropriate data. To give Trust Board visibility of system wide metrics that Pathology has an impact on. The aim is to support national initiatives.

• Collecting data in one place, once. Benchmarking performance to continuously drive improvement.

• Looking to include metrics for Innovation and Training to support long term sustainability of workforce and adopting advance and innovative roles.

• Potential to propose KPIs initially where national targets do not exist.
Specialist Testing

- Specialist Trusts have been mapped into networks, however, we are aware of the supra-regional and national impact some of services have.

- Formation of a board sub-committee to investigate the opportunity and approach.

- Defining attributes of specialist services to support:
  - Training / Succession
  - Clinical Pathways - Providing greater access to more patients
  - Innovation and translational development
  - Development of accepted standards, protocols, and national leadership
  - Diagnostic pathway optimisation
Next Steps

Publication of pathology toolkit

A suite of toolkit guidelines and resources is being compiled by NHS Improvement to assist Trusts to implement pathology consolidation and collaboration. These are aimed at addressing the major barriers communicated to NHS Improvement through extensive engagement with providers. The toolkit will be backed up by real world example case studies.

<table>
<thead>
<tr>
<th>Barrier to consolidation</th>
<th>Toolkit</th>
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<tbody>
<tr>
<td>Business case is too cumbersome and Carter compliance needs defining.</td>
<td>• Strategic Outline Case Template</td>
</tr>
<tr>
<td></td>
<td>• Full Business Case Template</td>
</tr>
<tr>
<td>What services can be safely consolidated and how should a spoke service run?</td>
<td>• Essential Services Laboratory Template</td>
</tr>
<tr>
<td>How is risk shared? How are saving dispersed? Who is responsible for capital investment?</td>
<td>• Commercial Structure Options</td>
</tr>
<tr>
<td>How should a network be created and who is responsible for the operation?</td>
<td>• Operational Governance Guide</td>
</tr>
<tr>
<td></td>
<td>• Clinical Governance Guide</td>
</tr>
<tr>
<td></td>
<td>• Due diligence guide</td>
</tr>
<tr>
<td>IT will need large investment and is a significant barrier.</td>
<td>• IT Procurement Guide</td>
</tr>
<tr>
<td>How do I outsource my pathology and ensure I am getting the best deal?</td>
<td>• Pathology Outsourcing Guide</td>
</tr>
<tr>
<td>How do I structure the project of consolidating pathology services and what steps are involved?</td>
<td>• Network consolidation Framework Project Plan</td>
</tr>
<tr>
<td>What are the legal decisions that need to be made?</td>
<td>• Legal Watchpoints Framework</td>
</tr>
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</table>
What are the key procurement issues impacting Pathology consolidation

- Outsourcing – what is the quickest and most cost effective route to market?
- Can you form networks without a competitive procurement process?
- Can Trusts change from being a customer to a partner in a network without a competitive procurement process?
- Balancing short-term savings potential, vs long term sustainable delivery system
- Leveraging national purchasing power in the equipment & reagents market
- Ensuring small, specialist equipment providers are not squeezed out of the market
Helping with the leadership:

“Getting it Right First Time”

Clinical Programme covering all disciplines

Posts appointed to for Pathology Clinical and Scientific roles:

Dr Simon Knowles, Dr Tom Lewis, Dr Marion Wood and Martin Myers (Senior Clinical Advisor)
Demand Optimisation

Helping with the Responsiveness:

Demand optimisation aims to deliver additional value in two ways:
1. By ensuring that only appropriate tests are requested
2. By recommending different analysis that will provide additional insight and

Impact on the quality and cost of patient care

Based on weighted average income per test of £1.66
A 5% increase would cost CCGs a total of £34m in 2017/18
Digital requirements in the future

- Integrated LIMS (Hub and spoke)
- Automation (tracking/routine/molec/cellular/immuno)
- Remote connection and conferencing
- Remote ordering and reporting
- Diagnostic algorithms
- Demand management (CCGs)
- Metrics (Carter: Benchmarking)
- Digital Pathology
- Artificial Intelligence
Pathology Configuration

- **Primary Care Services**
- **POC**
- **Single LIMS System**
- **Acute Hospital Services**
  - Rapid Delivery
  - ‘Essential Service Laboratory’
- **Specialist and Molecular Services**
- **Community Diagnostics**
Key Headlines: National Cancer Board

Metrics and Deliverables – since 4th June
- Estimated Backlog down 98 patients
- No DTT Backlog down 262
- DTT Backlog down 80
- Treatment Run Rate high
- Performance decreased indicating shift towards focus on backlog clearance (down to 73.42%)

Weekly Rhythm
- 6 Weekly Backlog reduction profiles set
- NHSE/I call to agree immediate actions
- PTL calls with high risk systems
- Detailed reporting established for high risk systems
- Weekly RD meeting review meetings on progress

System Support
- Funding issued to systems to support delivery
- Peer support being provided in to systems
- Transforming Cancer Services Team mobilised
- IST capacity supporting delivery across London
- Clinical support identified nationally to support Urology pathway management
- Embedded support recruited to in place and coming online over the coming weeks
- Support offers agreed with risk systems
- NHSI/NHSE virtual programme team established to manage delivery
- Escalation meetings held with North West London and South East London
Any credible life sciences strategy in the UK must have the NHS as an active participant. Not only is it a monopoly purchaser of commercial health-related products, but it is also potentially an enormous asset for those attempting to discover and develop new, innovative products and to properly test their utility in a healthcare system. Adoption by the system of innovation is key to improving outcomes for patients. This Strategy, however, should not only recognise the importance of the NHS to successful economic growth in the life sciences, but it needs to recognise the importance of active NHS engagement with commercial innovators in ways that could enable significant transformation in the way healthcare is delivered in the UK.

Building on the standards set out by the NDG and CQC, the health and care system should set out a vision and a plan to deliver a national approach with the capability to rapidly and effectively establish studies for the generation of real-world data, which can be appropriately accessed by researchers.

ePrescribing should be mandatory for hospitals.

NHS Digital and NHS England should set out clear and consistent national approaches to data and interoperability standards and requirements for data access agreements.
Communication & Engagement

- National engagement with key stakeholders through National Pathology Optimisation Delivery Group [NPODG];
  - Royal College of Pathologists
  - Institute of Biomedical Scientists
  - NHS England
  - Regulatory bodies such as UKAS
  - British in Vitro Diagnostics Association
  - Equipment suppliers
  - Private sector operators
  - Health Education England
  - Workforce Representation Bodies
  - Competition and markets authority
  - NHS Digital
  - STPs

NPODG

Regulators
- UKAS
- CMA
- BIVDA

Clinical community
- RCPATH
- IBMS

Commissioners
- NHSE
- CCGs

Suppliers
- Equipment
- Private sector operators

Workforce
- Unions such as UNITE
- Health Education England

Providers
- Trusts
- Private sector providers
Questions?