

## NICE Health and Care Excellence Call for Evidence – Diagnostic Services

### The Royal College of Pathologists' written submission

October 2016

#### 1. About the Royal College of Pathologists

1.1

The Royal College of Pathologists (RCPath) is a professional membership organisation with charitable status. It is committed to setting and maintaining professional standards and to promoting excellence in the teaching and practice of pathology. Pathology is the science at the heart of modern medicine and is involved in 70 per cent of all diagnoses made within the National Health Service. The College aims to advance the science and practice of pathology, to provide public education, to promote research in pathology and to disseminate the results. We have over 10,000 members across 19 specialties working in hospital laboratories, universities and industry worldwide to diagnose, treat and prevent illness.

1.2

The Royal College of Pathologists comments on the NICE Health and Care Excellence Call for Evidence – Diagnostic Services were made by Honorary Officers of the College consulted during October 2016 and collated by Dr Lance Sandle, Vice-President for Professionalism and Prof Tim Helliwell, Vice-President for Learning.

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2. Responses to the Call for Evidence			
Stakeholder Organisation	Evidence Submission (Details of evidence that relates to the questions. Please specify which question you are referring to)	Published / Unpublished material	How the evidence can be obtained (For published material, please include full reference details; author, date of publication, full title of paper/report and where can a copy be obtained from)
	<b>Q1. Comparisons of different service configurations for the provision of diagnostic services.</b>		
<b>RCPATH</b>	Q1. Pathology services are a complex range of 19 specialties and are involved in screening, diagnosis and identifying prognostic and predictive markers for disease. Sensible options for service delivery differ between specialties and, in some fields, there is little evidence that centralisation and consolidation improve results or the efficiency of service provision. Clinically unwarranted reconfiguration creates serious risks for the stability of the service.	<b>Published</b>	<p><b>Royal College of Pathologists Annual Report 2014-15. Available from:</b>  <a href="http://www.rcpath.org/resourceLibrary/annual-report-2014-2015.html">www.rcpath.org/resourceLibrary/annual-report-2014-2015.html</a></p> <p><b>Karakusevic S, Edwards N, Lewis R and Dayan M. June 2016. The future of pathology services. Available at:</b>  <a href="http://www.nuffieldtrust.org.uk/publications/future-pathology-services">http://www.nuffieldtrust.org.uk/publications/future-pathology-services</a></p>

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<p><b>RCPATH</b></p>	<p>Q1. The wholesale reconfiguration of clinical services represents a significant organisational distraction and carries with it both clinical and financial risk. Yet those who are taking forward major clinical service reconfiguration do so in the absence of a clear evidence base or robust methodology with which to plan and make judgements about service change. These principles apply just as much to diagnostics as to other clinical services.</p>	<p><b>Published</b></p>	<p><b>Imison C, Sonala L, Honeyman M, Ross S. The reconfiguration of clinical services. What is the evidence? Kings Fund 2014.</b> <a href="http://www.kingsfund.org.uk/publications/reconfiguration-clinical-services">http://www.kingsfund.org.uk/publications/reconfiguration-clinical-services</a></p>
<p><b>RCPATH</b></p>	<p>Q1. Quality, finance and use of technology need to be the deciding factors in determining how local services are configured, recognising that there is no 'optimal design'. To maximise the likelihood of success, proposals should be underpinned by detailed workforce and financial plans with supporting service improvement strategies. These principles apply just as much to diagnostics as to other clinical services.</p>	<p><b>Published</b></p>	<p><b>Imison C, Sonala L, Honeyman M, Ross S. The reconfiguration of clinical services. What is the evidence? Kings Fund 2014.</b> <a href="http://www.kingsfund.org.uk/publications/reconfiguration-clinical-services">http://www.kingsfund.org.uk/publications/reconfiguration-clinical-services</a></p>
<p><b>RCPATH</b></p>	<p>Q1. Diagnostic digital pathology is proposed as a possible solution to problems of laboratory capacity and access to specialist clinical advice. The advantages and disadvantages</p>	<p><b>Published</b></p>	<p><b>Snead et al. Validation of digital pathology for primary histological diagnosis. Histopathology 2016; 68, 1063-1072</b></p>

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	are reviewed in several publications; a consensus has yet to be reached on the clinical utility and cost effectiveness (this technology may be subject to NICE MTA)		<b>Cornish TC and McClintock DS. Medicolegal and regulatory aspects of whole slide imaging based telepathology. Diagnostic Histopathology 2014, 20, 475-481</b>
<b>RCPATH</b>	<p><b>Q1. Variation and Demand Optimisation</b></p> <p>The importance of a systematic approach to Demand Optimisation cannot be understated within any configuration of pathology services. There are several related aspects to consider:</p> <p>Evidence for variation: There has been much data published on the variation in the way diagnostic services are utilised by individual areas or clinicians with an implication of both under and over requesting taking place.</p>	<p>NHS Atlas of Variation 2013</p> <p>Demand Optimisation Toolkit and Minimum retesting intervals Guidance web pages of the Scottish National</p>	<p><a href="http://ukgtn.nhs.uk/fileadmin/uploads/ukgtn/Documents/Resources/Library/Reports_Guidelines/Right_Care_Diagnostics_Atlas_2013.pdf">http://ukgtn.nhs.uk/fileadmin/uploads/ukgtn/Documents/Resources/Library/Reports_Guidelines/Right_Care_Diagnostics_Atlas_2013.pdf</a></p> <p>Fryer A, Smellie W. Managing demand for laboratory tests: a laboratory toolkit. J Clin Path 2013; 66: 62-72</p> <p><a href="https://www.rcpath.org/resourceLibrary/g147-minretestingintervalsinpathology-dec15-pdf.html">https://www.rcpath.org/resourceLibrary/g147-minretestingintervalsinpathology-dec15-pdf.html</a></p>

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	<p>A variety of guidance has been published with recommendations for implementation - notably the demand optimisation toolkit approach by Fryer and the Minimum Retesting Intervals in Pathology guidance by Lang/Croal.</p> <p>A complete systematic approach to demand optimisation guidance and implementation is however worthy of note – currently being implemented across NHS Scotland as part of the Scottish National Demand Optimisation Group.</p> <p>The RCT published in 2006 in the Lancet on the use of educational feedback and reminders to GPs is still relevant and is being piloted currently in Scotland</p> <p>The use of decision support software to better direct utilisation of lab tests has been demonstrated to be of value (see Review). It is however limited in the UK and currently difficult to implement given the lack of standardisation and interoperability across providers.</p>	<p>Demand Optimisation Group – final report to be published Dec 2016. Test case library available.</p> <p>Systematic Review of CDSS</p>	<p><a href="http://www.mcns.scot.nhs.uk/dog/">http://www.mcns.scot.nhs.uk/dog/</a></p> <p>Thomas RE, Croal BL, Ramsay C, Eccles M, Grimshaw J. The effect of enhanced feedback and brief educational reminder messages on laboratory test requesting in primary care: A cluster randomised trial. The Lancet 2006; 367: 1990-1996.</p> <p>Bright TJ. Effect of Clinical Decision-Support Systems: A Systematic Review. Ann Int Med 2012; 157(1):29-43</p>
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<p><b>RCPATH</b></p>	<p><b>Q1. Informatics</b></p> <p>Informatics is of vital importance for the delivery of diagnostic services, especially when significant consolidation is planned.</p> <p>Both the Digital First publication and the Pathology Quality Assurance Review made specific reference to the importance of a standardised approach to laboratory coding and nomenclature. Interoperability is now in reverse mode with the demise of the Pathology Bounded Code List and while the development of a National Laboratory Medicine Catalogue continues under NHS Digital, no progress has been made since April 2015. Fragmentation of services and lack of interoperability between sites will significantly limit networking and consolidation plans and so needs to be taken account of.</p>	<p>NHS England: Digital First</p> <p>Pathology Quality Assurance Review 2014</p>	<p><a href="https://www.england.nhs.uk/wp-content/uploads/2014/02/pathol-dig-first.pdf">https://www.england.nhs.uk/wp-content/uploads/2014/02/pathol-dig-first.pdf</a></p> <p><a href="https://www.england.nhs.uk/wp-content/uploads/2014/01/path-qa-review.pdf">https://www.england.nhs.uk/wp-content/uploads/2014/01/path-qa-review.pdf</a></p>
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	<b>Q2, Comparisons of different service configurations for accessing diagnostic tests.</b>		
<b>RCPATH</b>	Q2. Clinical and business models for Point of Care Testing (POCT) need to develop to enable effective use	<b>Published</b>	P8, Karakusevic S, Edwards N, Lewis R and Dayan M. June 2016. The future of pathology services. Available at: <a href="http://www.nuffieldtrust.org.uk/publications/future-pathology-services">http://www.nuffieldtrust.org.uk/publications/future-pathology-services</a>
<b>RCPATH</b>	Q2. Patient interpretation and understanding of genomics is a significant challenge. The early stages of interpretation may risk unnecessary anxiety, treatments and interventions.	<b>Published</b>	P11. Karakusevic S, Edwards N, Lewis R and Dayan M. June 2016. The future of pathology services. Available at: <a href="http://www.nuffieldtrust.org.uk/publications/future-pathology-services">http://www.nuffieldtrust.org.uk/publications/future-pathology-services</a>
<b>RCPATH</b>	Q2. Professional POCT has the potential to deliver results more rapidly, improve speed to diagnosis (which is critical for life-threatening conditions such as sepsis and infection control), accelerate patient management, and assist in targeting treatment	<b>Published</b>	P11-12. Karakusevic S, Edwards N, Lewis R and Dayan M. June 2016. The future of pathology services. Available at: <a href="http://www.nuffieldtrust.org.uk/publications/future-pathology-services">http://www.nuffieldtrust.org.uk/publications/future-pathology-services</a>

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<p><b>RCPPath</b></p>	<p>Q2. Point of Care Testing (Q2) The use of Point of Care Testing (POCT) has rapidly increased in recent decades and has the potential to take advantage of quicker laboratory test results and subsequent clinical decisions. There are potential applications within the hospital setting, General Practice, community settings (pharmacies, supermarkets) and in patient homes. Much research has been published on this, including some randomised controlled trials and systematic reviews, although few studies have been based purely on the UK model of healthcare.</p> <p>Governance around POCT remains particularly poor within the UK NHS with only a very small minority of services, even in hospitals, being accredited under the scope of ISO15189 (see data on UKAS accredited laboratories). POCT is generally much more expensive to deliver and needs to be assessed on its impact on the whole patient pathway and not just the laboratory costs. A significant amount of POCT services have emerged without any input from laboratory professionals in aspects of procurement, implementation, maintenance, quality assurance or interpretation – minimal official data has been published however surveys/reports published by Scottish Government in 2011 and</p>	<p>Published</p>	<p><a href="https://www.ukas.com/list-all-organisations/?org_type=7&amp;org_cat=">https://www.ukas.com/list-all-organisations/?org_type=7&amp;org_cat=</a></p> <p><a href="http://www.mcns.scot.nhs.uk/scbmdn/projects/point-of-care-testing/">http://www.mcns.scot.nhs.uk/scbmdn/projects/point-of-care-testing/</a></p>
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	<p>2014 have emphasised poor practice across the board. Expansion of POCT within the community and Primary Care will therefore carry risks if proper governance is not addressed – current practice across the UK does not bode well for this.</p> <p>Evidence – review by Andrew St John is worth noting (2010) and provides many examples of different settings with its main conclusion of “adoption of the technology is not sufficient to achieve improved outcomes; it is also necessary to consider whether the process of delivering care needs to change in order to reap the benefits of quicker results and faster decision-making”. An example of a systematic review for patient/community/GP/Hospital POCT for anticoagulation assessment is given (Sharma 2015), which highlights the importance of the actual implementation and end to end service implications.</p>		<p>St John A. The Evidence to Support Point-of-Care Testing. Clin Biochem Rev 2010. 31(3): 111–119 Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2924123/#">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2924123/#</a></p> <p>Sharma P. et al. Is self-monitoring an effective option for people receiving long-term vitamin K antagonist therapy? A systematic review and economic evaluation. BMJ Open 2015;5:e007758 doi:10.1136/bmjopen-2015-007758 Available at: <a href="http://bmjopen.bmj.com/content/5/6/e007758.full.pdf+html">http://bmjopen.bmj.com/content/5/6/e007758.full.pdf+html</a></p>
<b>RCPPath</b>	<p>Q2. Digital pathology configured at network level will facilitate referral for clinical advice from peripheral hospitals to the specialist centres. Significant limitations when further technical work is required and material has to be physically moved between laboratories.</p>	<b>Published</b>	<p>Thorstenson S, Molin J, Lundstrom C. Implementation of large-scale routine diagnostics using whole slide imaging in Sweden: Digital pathology experiences 2006-2013. J Pathology Informatics 2014; 5: 14.</p>

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	<p><b>3. Comparisons of different service configurations for the co-location of different diagnostic disciplines with each other, or the co-location of diagnostic services with certain clinical or therapeutic management services compared with no co-located services</b></p>		
<p><b>RCPATH</b></p>	<p>Q3. Value of multidisciplinary teams. Effective communication essential preferably through co-location but alternatively by videoconferencing with IT support. This applies to both coordinated clinical opinions from the diagnostic specialties and coordinated clinical decision making with diagnostic and other clinical disciplines. MDTs improve clinical decision making but too little evidence to assess impact on clinical outcomes.</p>	<p><b>published</b></p>	<p>Croke JM, El-Sayed S. Multidisciplinary management of cancer patients: chasing a shadow or real value? An overview of the literature. <i>Curr Oncol.</i> 2012; 19: e232–e238.</p>