Freedom of Information Request

Dear Sir/Madam

I am writing to you under the Freedom of Information Act to request the following information on cellular pathology services [Histology]

The information request takes the form of a questionnaire, answers to this will form the basis of a PhD project that I am currently completing at Portsmouth University examining how digital pathology systems are affecting/will affect histology services in the UK (NHS).

Full details on information requirements are detailed in the questionnaire completion notes.

Please provide all the data that you can (that you have available). However, if some of the data is unavailable to you or you are unable to provide it for other valid reasons, I would ask you to return a partial response, completing those sections that you are able to. If unable to provide precise details estimated responses are acceptable – if estimated responses are provided, please indicated this (as well as approximate error margin).

I also work in the NHS (in histology) and understand the time pressures faced, I have therefore tried to make this as simple and easy to complete as possible.

If you can identify any ways that my request could be refined, I would be grateful for any further advice and assistance.

If you have any queries please don't hesitate to contact me via email and I will be very happy to clarify what I am asking for and discuss the request, my details are outlined below.

Thank you for taking the time to assist with this

Regards

Questionnaire (FOI request)

Completion notes

All questions related to laboratory structure and work completed during the year 2018 (entire year) unless otherwise stated in the question.

All questions relate to histopathology only (including routine immunohistochemistry) – please do not include details for Cytology, molecular pathology or any other disciplines unless otherwise stated.

Please complete all questions where possible – if precise data is unavailable please provide an estimate (stating that data is an estimate plus likely error margin expressed as a percentage).

If unable to complete all questions, please provide a partial response (just completing the data that you can).

If you are unable to provide data on any of the questions please record this along with a brief reason in your question response, this should include any data that would take too long to collate and would otherwise prevent you from replying to the Freedom of Information request. This will help the researcher better understand which information requests are reasonable and will inform any future requests for information.

Although not marked as mandatory, all questions should be considered mandatory.

Where numerical data is requested (e.g. number of samples per year) please enter this as a number.

If you have multiple histology laboratories within your organisation please submit separate responses for each.

Definitions

Pathology Network: For the purposes of this questionnaire a pathology network is defined as a formal grouping of histology laboratories that jointly process the work from a given area/given hospitals along the hub and spoke/ESL (Essential services laboratory) model recently proposed by NHSI.

Digital Pathology: This includes all forms of digital systems used in the diagnostic process as listed below:

- **Telepathology**: The use of remote digital microscopes – live video/robotic microscopy in the diagnostic process
- **Whole slide Imaging (WSI)**: The use of scanned images of slides (virtual slides) in the diagnostic process
- **Image Analysis**: The use of artificial intelligence systems to aid with certain aspects of the diagnostic process – for the purposes of this questionnaire this should be limited to those systems that automate an aspect of the diagnostic process only (automated counts of ER/PR/Her2/Ki-67 etc.) as opposed to digital annotation of slides or measurement between marked points on a digital slide

Primary diagnosis (report): The diagnostic report issued by the pathologist responsible for the case – for the purposes of this questionnaire this included multiple supplementary reports as a result of follow up testing (e.g. further immunohistochemistry)

Secondary diagnosis (report): For the purposes of this questionnaire this refers to the process of seeking a second opinion (either internally or externally)

Managed Service Contract: A contractual arrangement with an equipment provider that allows equipment purchase and maintenance costs to be spread across several years on a fixed payment plan

Section 1: Respondent/response details

Q1: Respondent/response details

- Name of acute hospital trust
- Address of acute hospital trust
- Name of laboratory providing histology services
- Address of laboratory providing histology services

Section 2: Details of laboratory that provides histopathology services for your trust

Q2: What was the funding model of your histology laboratory in 2018

- NHS laboratory
- Outsourced (Public)
- Outsourced (Private)
- Other (please specify)

Q3: Were histology and NG-Cytology services provided by the same service/laboratory (cellular pathology) in 2018 [Y/N]

- If [Y] please provide the following detail
    - Number of NG-Cytology requests received
    - Number of NG-Cytology slides produced

Q4: was your histology laboratory a referral centre for specialist testing in 2018 [Y/N] – (receives and processes referred work from other laboratories)

- If [Y] please detail the following
    - Number of referral requests received
    - Number of referral slides received

Q5: Was your histology laboratory part of a pathology network in 2018 [Y/N]

- If [Y] please detail the following
    - Number of laboratories within the network
    - Names of laboratories – please list [FREE TEXT]
    - Nature of each laboratory in network (Hub laboratory or spoke/ESL)

Q6: Did your histology laboratory send a significant proportion of cases to an external "outsourcing" service (e.g. Source Bioscience) for reporting in 2018 [Y/N]

- If [Y] please provide the following details
    - Number of requests outsourced
    - Number of slides outsourced

Q7: Staffing – please complete the following table indicating how many whole time equivalent (WTE) staff you employed in your histology laboratory during 2018 at the indicated grades

	Permanent staff (WTE)	Bank/locum staff (WTE)
Agenda for change band 2		
Agenda for change band 3		
Agenda for change band 4		
Agenda for change band 5		

Agenda for change band 6		
Agenda for change band 7		
Agenda for change band 8		
Medical staff (Pathologists)		

- Band 2/3/4 (Medical laboratory assistants, associate practitioners, or administrative staff)
- Band 5/6 (Biomedical scientists)
- Band 7/8 (Senior biomedical scientists, managerial staff)

Q8: Staffing roles – please provide detail on the approximate time spent by biomedical scientist staff on dissection or diagnosis (reporting) during 2018

	Dissection (WTE)	Reporting (WTE)
Agenda for change band 6		
Agenda for change band 7		
Agenda for change band 8		

Q9: Please provide details below for the number, severity, and type of any errors or adverse incidents recorded in your histology laboratory during 2018 related to the laboratory, and the reporting process

- The reporting process relates to the production of a diagnostic report from the analysis of stained slides/virtual slides

	Laboratory	Reporting
Number of errors		
Number of AIRS (no-harm/minor)		
Number of AIRS (moderate)		
Number of AIRS (severe)		

- AIR = Adverse incident

Section 3: Budgetary breakdown

Q10: Please provide the following details on service costs for 2018

- Income
- Non-pay costs
- Pay costs
- Total costs

Income and costs should be for the histology service for 2018 (If it is not possible to separate histology from cytology service provision please provide total service costs for both combined with an estimate for histology)

Section 4: Workload breakdown

Q11: Please provide the following information on laboratory workloads for 2018

- Number of histology requests received
- Number of histology slides produced
- Average [MEAN] turnaround time (in days) from receipt of cases in laboratory until production of diagnostic report in 2018

- Number of histology cases/slides where an internal second opinion was sought (second opinion – secondary diagnosis - was sought from another consultant pathologist within your laboratory)
- Number of histology cases/slides where an external second opinion was sought (second opinion – secondary diagnosis - was sought from another laboratory)

Section 5: Use of digital/computational pathology

Q12: Did your histology laboratory use any form of digital/computational pathology in 2018 [Y/N]

- If [N] to the above question are you planning to introduce digital pathology in the near future (please provide details)

NOTE: If your histology laboratory does not currently use any form of digital/computational pathology the remainder of this section can be left blank

Q13: Please indicate which of the listed systems where used in your histology laboratory in 2018

- Telepathology
- Whole Slide Imaging
- Image analysis
- Other (please detail)
- Conventional (analogue) light microscopy

Q14: What was digital pathology used for in your laboratory during 2018

- Research
- Training
- Primary diagnosis
- Secondary diagnosis (second opinion)
- Preparing cases for review at multi-disciplinary team meetings
- Other (please detail)

Please skip questions 14-16 if you do not currently use whole slide imaging for primary or secondary reporting in your laboratory

Q15: If whole slide imaging was used in your laboratory in 2018 please provide the following details on system configuration

- Number of scanners
- Current size of digital slide archive (number of years)
- Planned size of digital slide archive (number of years)
- How are slides routinely scanned (timing)
    - On-demand
    - Overnight
- How are slides routinely scanned (configuration)
    - Routine x20 with x40 on demand
    - Routine x40
    - Routine use of z-stacking or on demand
    - Other (please detail)
- Approximately how many cases were sent back to the laboratory for re-scanning (for any reason) in 2018

Q16: If whole slide imaging was used in your laboratory in 2018 please provide the following details on system costs

- How were your current whole slide imaging scanning systems purchased?
    - Capital purchase
        - Please provide details on the capital purchase costs
    - Managed Service Contract (MSC)
        - Please provide details on the ongoing MSC costs
- Ongoing [Yearly] budgets for maintaining whole slide imaging scanning systems (if not included in MSC costs)

Q17: If whole slide imaging was used in your laboratory in 2018 please provide the following details on cases reported

- Number of cases where a primary diagnosis was produced using virtual slides
- Total number of slides where a primary diagnosis was produced using virtual slides
- Number of cases where a secondary diagnosis was produced using virtual slides
- Total number of slides where a secondary diagnosis was produced using virtual slides

Please skip questions 17-19 if you do not currently use image analysis for primary or secondary reporting in your laboratory

Q18: If image analysis was used in your laboratory in 2018 please provide the following details on system configuration

- Please detail what image analysis applications were used (e.g. ER scoring)
- Please detail the type of cases image analysis was used on (e.g. breast biopsies)

Q19: If image analysis was used in your laboratory in 2018 please provide the following details on system costs

- How were your current image analysis systems purchased?
    - Part of purchased WSI scanning system (If details on costs already included as part of question 15 please skip the rest of this question)
    - Capital purchase
        - Please provide details on the capital purchase costs
    - Managed Service Contract (MSC)
        - Please provide details on the ongoing MSC costs
- Ongoing [Yearly] budgets for maintaining image analysis systems (if not included in MSC costs)

Q20: If image analysis was used in your laboratory in 2018 please provide the following details on cases reported

- Number of cases where a primary diagnosis was produced with the assistance of image analysis
- Total number of slides where a primary diagnosis was produced with the assistance of image analysis
- Number of cases where a secondary diagnosis was produced with the assistance of image analysis
- Total number of slides where a secondary diagnosis was produced with the assistance of image analysis

Section 6: Automation/digitisation

Q21: Please indicate the digital systems that your histology laboratory used in 2018, as well as the age/usability of your laboratory information system (LIMS)

- Voice recognition system for reporting
- Digital case requesting (ICE) system
- Digital dissection macro imaging systems
- Voice recognition system for dissection
- Specimen tracking system
- Age of laboratory information system
    - Less than 10Y old/More than 10Y old
- Usability of laboratory information system
    - Very user friendly/Average/Not at all user friendly

Section 7: System details

Q22: Would your current systems (laboratory information systems, workload tracking systems or other laboratory systems – either individually or together) enable you to provide the following detail for cases – **please highlight those details you would be able to provide**

- List of cases (lacking case identifiers) with information on each case as follows
    - Date received in lab
    - Date finished in lab/sent for reporting
    - Date reported
    - Type of case (e.g. breast biopsy)
    - Size of case (number of slides)
    - RCPath workload score
    - Details on secondary requests (what requested/when requested)
    - Details on second opinions sought (internally or externally)
    - Detail if referred for additional testing
    - Detail if outsourced for reporting
    - Detail if booked in using an electronic order comms system (ICE)
    - Detail if reported using digital pathology/computational pathology

Thank you for your assistance with this

If you have any queries regarding these questions the researcher can be emailed ████████████ for more information if required.