**Quality Improvement- Performance indicators**

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**Quality Improvement- Performance targets**

1. Purpose of procedure
   * 1. It is a requirement of UKAS ISO15189 standards and a stated component of the Departmental Quality Policy, that the service provided by the department should relate to the needs and requirements of its users. The establishment of quality objectives assists in the delivery of a quality service to our users.
2. Principle of Procedure
   * 1. There are a number of national publications to which we must adhere, and data must be collected, submitted (if required), monitored and discussed.
        1. Pathology Quality Assurance Dashboard (monthly).
        2. RCP Key Assurance Indicators.
        3. Cancer waiting times monitoring dataset guidance.
     2. Sections within the department have set KPI targets which are completed daily and reviewed monthly, to ensure that staff working times and staffing levels are appropriate to meet sectional targets.
     3. The fulfilment of objectives is monitored monthly at the Cellular Pathology Performance Meeting and annual performance is also reported and discussed at the Annual Management Review. Objectives may be revised in accordance with the demands of users and / or the resources of the department.
3. Personnel
   * 1. The statistics for Turnaround times, are generated by the IT team. The results are discussed at the appropriate monthly performance meeting.
     2. The Pathology Quality Assurance Dashboard is completed monthly by the Quality manager and presented at the Integrated laboratory medicine executive meeting.
     3. Sectional KPIs are completed by the section lead, or a designated individual.
4. Health & Safety
   * 1. Not applicable
5. Summary of significant changes
   * 1. New PQAD guidance and RCP KAIs discussed.
     2. Layout amended to include TAT vs tissue code in the appendix.
     3. Sectional KPIs updated.
6. Sample / Equipment / Reagents / QC
   * 1. Not applicable
7. Procedure
   * 1. This document is stored on Q-pulse and is available on request.
   1. Daily sectional objectives
      1. KPIs are captured on the appropriate dashboard held within the Laboratory sections folder on Genpath. Performance against the KPIs is monitored at the Cellular Pathology performance meeting.
      2. Specimen reception

* All of the day process blocks trimmed.
* All standard cases trimmed and placed on processor.
* All suitably fixed large cases trimmed.
* All CWT cases trimmed.
* All urgent cases trimmed and processed appropriately.
* All trephines removed from decal solution and put on processor.
  + 1. Slide production
* All embedded blocks from overnight process cut and issued.
* All urgent cases issued by 10.30am.
* All day process cases cut and issued the same day.
* All supplementary requests received before 3pm cut and issued.
* All supplementary requests received after 3pm to be cut and issued by 11am the following day.
* Routine PM cases issued within 10 days of the post-mortem.
* (Saturday only) – All pink blocks cut and issued.
  + 1. Immunocytochemistry
* Overnight stained work issued by 9.30am (excluding DDISH)
* All ICC work in oven by 6pm to be stained on the morning runs.
* All morning run work to be issued by 1.30pm (excluding ISH and double-stains)
* All ICC work in oven by 10am stained on the day run (excluding ISH and DDISH)
* All ICC work stained on the day run issued by 6pm.
* All ICC work in the oven by 2.30pm stained overnight.
* All IMF cases are cut, stained and issued by the end of the following day.
  + 1. Neuropathology
* Intraoperative diagnostic reports available within 15 minutes from timed receipt.
* All surgical blocks processed within 36 hours (except decal blocks)
* Surgical cases embedded, cut, stained and issued by 12.30pm.
* Molecular work prepped and sent away within 3 days from receipt of request.
  + 1. Frozen sections
* Single specimen cases are to be reported within 30 mins of receipt in the department.
  + 1. General Office
* Macroscopic dictations should be typed within 24 hours.
* Referred Lymphoma cases should be booked in within 24 hours of receipt.
* All other referred cases must be booked in within 48 hours of receipt.
  + 1. Cytology
* Date entry completed before next slide issue.
* Unacceptable samples returned same day.
* All specimens prepared the previous day issued by 11.30am.
* All specimens and special stains prepared before 2.30pm issued by 4.30pm.
* FNA specimens received in the morning issued by 2.30pm
  + 1. Electron Microscopy
* All cases will be processed within 5 days of receipt.
* All processed cases issued within 14 days of receipt.
* Cut/stained cases screened and issued within 7 days of cutting.
* Urgent cases issued within 7 days of receipt.
  + 1. Muscle/Nerve
* All new muscle samples received should have their histochemistry panel issued within 7 days of receipt.
* Nerve samples H&E should be issued within 2 days of receipt.
* Nerve samples ICC and specials should be issued within 7 days of receipt.
  + 1. Mortuaries
* Post-mortem examinations will be performed the working day after receipt of the instruction from the Coroner’s office.
* 100% of PM-CT scans will be performed within 3 days of receipt of instruction from the

Coroner’s office.

* 1. Cellular Pathology reporting: Agreed Turnaround times.
     1. Diagnostic priority is given to specimens from patients who are on a diagnostic cancer pathway, known as CWT specimens. We aim to report these cases as detailed below.
        1. 90% reported with 7 days of receipt.
        2. 95% reported within 10 days of receipt.

Some specimen types have agreed shorter reporting times based on tissue type. These are:

* + - 1. Cardiac transplant biopsies 1 day
      2. Transbronchial transplant biopsies 1 day
      3. Urgent renal biopsies 1 day (verbal report only)
      4. Breast core/Vacuum assisted biopsies 5 days
      5. Melanoma screening clinic biopsies 5 days
      6. Prostate core biopsy 6 days
    1. All other urgent cases must be discussed with a clinician so that an urgent reporting time can be defined and agreed, based on the clinical urgency.
    2. 100% of specimens from the Bowel cancer screening service should be reported within 7 days. As per the guidance published by PHE reporting 90% in 7 days is deemed as acceptable and 95% is deemed as achievable.
    3. Regional Coroner cases
* A provisional cause of death should be issued within 24 hours of PM.
* 95% of reports should be provided within 28 days of the last specialist test result.
* 95% of highly complex cases will be reported within 10 weeks.
  + 1. Perinatal Post-mortem reports
* 8 weeks (from date of PM to available report)
  + 1. Referred cases.
* TAT of 90% in 14 days from receipt for referred in cases provided the referral is to a team (as opposed to an individual)
  1. Measurement of turnaround times
     1. The turnaround time of total workloads and selected specimen types is routinely measured and reported monthly including:

## Histology

* Non Gynae.Cytology
* Neuropathology
* Muscle and Nerve
* CWT Histology
* CWT Cytology
* Breast cores
* Frozen section turnaround times
  + 1. Monthly graphs are produced showing the 7 and 10-day TAT for each individual team as well as a collated Histology graph. This includes non-gynae cytology samples.
    2. Each tissue type has been assigned an agreed turnaround time, as defined in the appendix of this document. These turnaround times are monitored monthly, and trends are monitored every 4 months.
  1. Pathology Quality Assurance dashboard
     1. The dashboard is completed monthly and discussed in the Integrated Laboratory Medicine Executive monthly meeting and the Directorate Clinical Governance and Quality Committee meeting. The data is presented to the Trust executive board quarterly.

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| **Section One: Health Check** | | |
| Indicator reference | KPI Description | Target |
| H1 | Number of serious incidents assigned to pathology | 0 |
| H2 | Number of outstanding Datix reports over 30 days old | 0 |
| H3 | Number of RIDDORs reported | 0 |
| H4 | Staff sickness rate | 3.96% |
| H5 | Staff turn over | 14.4% |
| H6 | Overall activity | Monitoring |
| H7 | Headline risk for Pathology service | Monitoring |
| H8 | Services currently meets statutory requirements for   * MHRA * HTA * HFEA * HSE | Yes |

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| **Section Two: Operational Performance** | | |
| Indicator reference | KPI Description | Target |
| T2 | Total number of diagnostic histopathology cases received | Number |
| T2.1 | Total number of diagnostic histopathology cases reported | Number |
| T2.2 | Total number of diagnostic histopathology cases reported within 7 days | Number |
| T2.3 | Total number of diagnostic histopathology cases reported within 10 days | Number |
| T4 | Local patient pathways, agreed with requestors, shall include anticipated turnaround times for all laboratory investigations | 95% |
| T8 | Total number of diagnostic histopathology cancer cases received | Number |
| T8.1 | Total number of diagnostic histopathology cancer cases reported | Number |
| T8.2 | Total number of diagnostic histopathology cancer cases reported within 7 days | Number |
| T8.3 | Total number of diagnostic histopathology cancer cases reported within 10 days | Number |

At the current time there are no national targets defined for the reporting of cancer cases. To allow us to monitor our performance we are continuing to monitor the number of CWT cases reported in 7 days and reported in 10 days.

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| **Section Three: Quality and Clinical Governance** | | |
| Indicator reference | KPI description | Target |
| Q1 | List investigations not covered by ISO (in-house) | 0 |
| Q2 | List investigations not covered by ISO (referred to third party) | 0 |
| Q3 | All investigations should be covered by an EQA scheme | 100% |
| Q4 | Number of NICE Guidance- commissioned and funded and actions has not been completed | 0 |
| Q5 | Number of field safety notices received >21 days and not yet implemented | 0 |
| Q7 | % of transport delays recorded as non-conformances | ≤1% |

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| **Section Four: People** | | |
| Indicator reference | KPI description | Target |
| P1 | Staff annual Appraisal rates | 100% |
| P2 | Locum and bank staff to substantive ratio | 5.5% |
| P3 | All senior staff – Annual appraisal | 100% |
| P4 | Proportion of staff in formal training | 5% |
| P5 | Proportion of staff undergoing training/education programmes | > 5% |

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| **Section Five: Stakeholder engagement and operational delivery** | | |
| Indicator reference | KPI description | Target |
| S1 | Friends and family survey rate – completed and published | One per year |
| S2 | Service user satisfaction survey rate – completed and published | One per year |
| S3 | Attendance at identified MDT meetings | 100% |
| S4 | Pathology Staff Survey – Completed and published | One per year |
| S6 | Number of business review meetings held in the last quarter with diagnostic suppliers | One per quarter |
| S7 | % of equipment contracts in effect that are over original term agreement | 0% |
| S8 | The laboratory shall actively engage in demand optimisation design both to reduce the number of unnecessary tests and to help ensure that appropriate tests are used | In date policy |
| S9 | Laboratories shall demonstrate commitment to sustained innovation in their services through continuous quality improvement (CQI), which may include conducting formal academic research and evaluating novel approaches aimed at improving | In date policy |

* 1. Quality indicators
     1. Performance against the defined ILM quality objectives are captured monthly and presented and discussed at the ILM executive meeting and the Cellular Pathology performance meeting.
     2. The KPIs are:
        1. Number of SOPs with a review date of at least one month ago expressed as a percentage of the total number of SOPs.
        2. Number of policies with a review date of at least one month ago expressed as a percentage of the total number of policies.
        3. Health and Safety documents, including COSHH and risk assessments, with a review date of at least 1 month ago expressed as a percentage of the total number of H&S documents.
        4. The number of audits with a start date of at least one month ago, expressed as a percentage of the total number of scheduled audit.
        5. The number of CAPAs still open over the 31-day target.
        6. The number of DATIX incidents still open over the 30-day target.
        7. Each of the above KPIs are expressed with the following RAG rating:
           1. Less than 5% **GREEN**
           2. Between 5% and 10% **AMBER**
           3. Over 10% **RED**
        8. The number of staff without current competency for the tasks they are performing at the time of the audit (first week of the month).
        9. The training KPI is expressed with the following RAG rating:
           1. Overall competency rate is 90% and above **GREEN**
           2. Overall competency rate is between 70-90% **AMBER**
           3. Competency levels are below 70% **RED**

1. Criteria relating to Procedure
   * 1. Not applicable
2. References
   * 1. Royal College of Pathologists - Key Assurance Indicators for pathology services (G181) Version 1. November 2019
     2. NHS England and NHS Improvement - Pathology Quality Assurance dashboard, 2nd Edition November 2019
     3. National Cancer waiting times monitoring dataset guidance. Version 11.1 April 2023.
     4. Monthly PQAD data collection User Guide. Version 1 April 2023
   1. UKAS ISO 15189
      1. The laboratory complies with all legislative requirements for practice and is assessed appropriately by external bodies such as United Kingdom Accreditation Service (UKAS), the Human Tissue Authority (HTA), Medicines and Health Regulatory Agency (MHRA) and the Home Office for evidence of conformity.
      2. For the full UKAS accredited scope of tests, assessed for conformance to ISO 15189 standards please refer to the UKAS website. A link to this is available through the Laboratory Medicine website.
   2. Departmental and Trust policies

* + 1. Not applicable
  1. Forms
     1. Pathology Quality Assurance dashboard template - held on the directorate shared drive.
  2. Related Documents
     1. Not applicable
  3. Appendix 1: Routine Diagnostic times.

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| Description | Defined target time (days) |
| **Breast specimens** | |
| Axillary clearance | 14 |
| Cavity shave | 14 |
| Core biopsy | 5 |
| Core – vacuum assisted | 5 |
| Diagnostic excision biopsy | 14 |
| Duct excision/Hadfields | 14 |
| Mastectomy | 14 |
| Open biopsy | 14 |
| Breast reduction | 14 |
| Sentinel Lymph Node | 14 |
| Skin/nipple punch biopsy | 5 |
| Therapeutic mammoplasty | 14 |
| Wide local excision +/- nodes | 14 |
| **Bone and Soft tissue specimens** | |
| Bone biopsy | 10 |
| Bone excision | 14 |
| Bone metastatic disease | 14 |
| Primary excision | 21 |
| Limb | 21 |
| Retroperitoneal tumour | 21 |
| Diagnostic soft tissue biopsy | 8 |
| Lipoma | 10 |
| Soft tissue excision – benign | 10 |
| Soft tissue excision – malignant | 14 |
| Synovial biopsy/excision | 10 |
| **Cardiothoracic specimens** | |
| Artery/vein biopsy | 15 |
| Bronchial biopsy | 10 |
| Cardiac biopsy | 10 |
| Cardiac transplant biopsy | 1 |
| Explant heart/lung | 42 |
| Lung biopsy | 10 |
| Lung resection (whole lobe) | 42 |
| Lung wedge resection | 15 |
| Mediastinal biopsy | 10 |
| Pleura | 15 |
| Temporal artery biopsy | 7 |
| Thrombus | 7 |
| Tracheal biopsy | 10 |
| Transbronchial transplant biopsy | 1 |
| Thymus | 42 |
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| **Endocrine specimens** | |
| Adrenal biopsy | 28 |
| Parathyroid specimens | 42 |
| Thyroid lobe/excision | 28 |
| Thyroid biopsy | 7 |
| **Gastrointestinal specimens** | |
| Biopsies from the oesophagus, stomach, small bowel, large bowel | 20 |
| Appendix | 42 |
| Gallbladder | 42 |
| Stoma | 42 |
| Omentum | 20 |
| Oesophagectomy | 20 |
| Gastrectomy | 20 |
| Small bowel resection | 20 |
| Large bowel resection | 20 |
| **Gynaecological specimens** | |
| Cervix biopsy | 90% of cases in 10 days |
| Cervix polypectomy | 42 |
| Cervix wire loop | 90% of cases in 10 days |
| Endometrial biopsy (curettage, pipelle) | 42 |
| Fallopian tube | 42 |
| Hysterectomy | 42 |
| Myomectomy | 42 |
| Omentum | 42 |
| Ovary | 42 |
| Vaginal/Vulval specimens | 42 |
| **Head and neck specimens** | |
| Aural/nasal polyp | 42 |
| Bone biopsy | 28 |
| Excisional biopsy | 14 |
| Lymph node | 28 |
| Mucosal biopsy | 42 |
| Resection | 14 |
| Skin biopsy | 42 |
| Laryngectomy | 14 |
| Neck dissection | 14 |
| Parotid | 28 |
| Salivary gland | 42 |
| Tongue biopsy | 42 |
| Tongue resection | 14 |
| Tonsil biopsy/resection | 42 |
| Vocal cord biopsy | 42 |
| Vocal cord resection | 14 |
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| **Hepatobiliary specimens** | |
| Bile duct | 14 |
| Liver biopsy – lesional | 10 |
| Liver biopsy – medical | 14 |
| Liver transplant biopsy | 14 |
| Liver resection for metastatic disease | 42 |
| Liver resection for primary tumour | 42 |
| Liver explant | 42 |
| Lymph node | 42 |
| Pancreatic biopsy | 14 |
| Pancreatic resection/Whipples | 42 |
| Spleen (trauma) | 42 |
| **Lymphoma team** | |
| Lymph node – needle core/excision | 14 |
| Spleen biopsy/resection | 14 |
| Referred cases | 14 (95%) |
| **Neuropathology specimens** | |
| Brain biopsy | 10 |
| Pituitary biopsy | 10 |
| **Renal biopsies** | |
| Renal biopsy | 14  Urgent – verbal report  1 day  Routine – verbal report  7 days |
| Renal transplant (over 1 year) |
| Transplant renal biopsy |
| **Skin specimens** | |
| Eye conjunctival biopsy | 5 |
| Mohs debulk | 5 |
| Nail | 14 |
| Pilonidal sinus | 7 |
| Skin biopsy – melanoma screening clinic | 5 |
| Excision of cyst | 5 |
| Scoop biopsy | 5 |
| Groin/axilla dissection | 14 |
| GVHD biopsy | 5 |
| Large resection | 14 |
| Incisional biopsy | 5 |
| Lipoma | 5 |
| Punch biopsy | 5 |
| Biopsy from rash | 7 |
| Soft tissue biopsy | 7 |
| Sentinel Lymph node | 20 |
| **Urology specimens** | |
| Bladder biopsy/TURB | 7 |
| Bladder resection | 42 |
| Epididymis | 42 |
| Foreskin | 42 |
| Kidney nephrectomy (benign) | 42 |
| Kidney nephrectomy/partial (malignant) | 14 |
| Kidney biopsy for RCC | 7 |
| Penile biopsy | 14 |
| Perineum biopsy | 7 |
| Prostate core biopsy | 6 |
| Prostate TURP | 42 |
| Prostatectomy | 42 |
| Retroperitoneal LN dissection | 7 |
| Testicular biopsy/remnant | 42 |
| Testis orchidectomy | 14 |
| Urology Lymph node | 14 |
| Ureter biopsy | 7 |
| Ureter resection PUJ | 42 |
| Urethra biopsy | 7 |
| Urethra resection | 42 |
| Vas deferens | 14 |