LABORATORY UPDATES

Contents

Clinical Chemistry

May 2024 – Change to Middleware

The middleware responsible for transmitting results from the analyser to the lab system has been updated from *CITM* to *Infinity*. Verification demonstrated that this change has had no impact on reported results.

June 2024 – Change to Blood Tubes

Standardised Biochemistry Blood Tubes to Lithium Heparin Plasma for all routine Biochemistry tests as part of regional standardisation and preparation for the new WinPath Laboratory Information Management System (LIMS)

Cellular Pathology

June 2024 – WinPath Laboratory Information Management System (LIMS)

Cellular Pathology in the Southern Trust is now live on the new LIMS for the following disciplines:

- Mortuary
- Diagnostic Cytology
- Histology

Haematology / Blood Bank

May 2022 – Upgrade of Automated Haematology Equipment

Full Blood Count testing has been upgraded from Sysmex XE2100 system to XN9100 systems. There is minimal clinical impact, Changes to *MU* of FBC parameters can be made available on request to the haematology laboratory. Sample type, request specifications and Turn-around-times are unchanged.

September 2024 – HERR

Haematology error code introduced. Individual tests will not appear on NIECR in the cases of sample or MAC errors, HERR will denote test(s) requested and nature of error.

Microbiology

November 2023 - Ballotini Beads for tissue culture

Due to supply issues with tissue grinders, the Microbiology lab has changed to Ballotini Beads for processing tissue samples for culture. This change has been verified to ensure there is no clinical impact

April 2024 – Anaerobic Cabinet Malfunction

Due to a leak in the anaerobic cabinet, which cannot be repaired, the Microbiology Laboratory has enacted the business continuity plan. Anaerobes will now be cultured in anaerobic jars. It is expected that there should be no impact on isolation rates.

May 2024 – Change to Middleware

The middleware responsible for transmitting Chlamydia & Gonorrhoea results from the analyser to the lab system has been updated from *CITM* to *Infinity*. Verification demonstrated that this change has had no impact on reported results.

July 2024 - Important Update to Faeces Sample Processing Protocol

From 1st July 2024, the Microbiology Laboratory will no longer process formed faeces samples for Enteric PCR screen / culture.
This change helps us to standardise across the region and puts us in line with national guidance. Frequently passed formed stools are not considered to be diarrhoea and are generally not indicative of infectious gastroenteritis. Therefore these samples do not require the same level of diagnostic scrutiny as liquid or semi-formed samples.
Moving forward, please ensure that only liquid or semi-formed stool samples are submitted for laboratory analysis (5 to 7 on the Bristol Stool Form Scale). This adjustment will help streamline our processes and ensure that our resources are directed towards samples that are more likely to yield clinically significant results.

August 2024 - Upgrade of Enteric PCR software

The software used for processing faeces samples for Enteric PCR has been updated to enable the automated interpretation of results. This change has been verified to ensure that the automated results correspond to the previously manual interpretation, and there should be no impact on the reports received.

November 2024 - New supplier for catalase reagent

Microbology has started using VWR Solutions catalase reagent to aid in organism identification. This has been validated by the microbiology lab to replace the current catalase reagent. There will be no impact to reporting

December 2024 - Introduction of Mast ABCD Discs for the detection of AmpC and ESBL

Microbiology lab will change to Mast ABCD Discs allowing for detection of AmpC producers as well as ESBL producers. AmpC will be reported as ESBL-like Producers and to be treated the same as ESBL's. This method has been verified by the Microbiology Lab

December 2024 - Microbiology are changing blood culture bottles.

The bottles changing are (Please do not order these):
- 259790 SN ANAEROBIC BOTTLES Catalogue Code HFB000539
- 259789 SA AEROBIC BOTTLES Catalogue Code HFB000541

In future, the new bottles to order are:
- 410851 FA PLUS AEROBIC BOTTLES Catalogue Code HFB000538
- 410852 FN PLUS ANAEROBIC BOTTLES Catalogue Code HFB000542

The FN and FA bottles can neutralise antibiotics to improve overall microorganism recovery.

Note:
* Paediatric bottles are not changing
* Continue using old stock until all is used/expired

January 2025 - Update to EUCAST 2024 breakpoints for Antimicrobial Susceptibility Testing (AST)

Microbiology has started using EUCAST 2024 breakpoints for interpreting AST results. Reporting of Antibiotic susceptibility will change

January 2025 - New Anaerobic Incubator

Microbiology has a new anaerobic incubator installed. No change to reporting of results

January 2025 - Extended incubation for Tissue, Bone and Pus culture

Microbiology has increased turnaround time for tissue, bone and pus samples from 2-7 days to 2-9 days due to extended incubation

January 2025 - Update to EntericBio GastroPanel 2 Version 3

Microbiology has updated Reagent Kit for their Enterics PCR. No change to results reported

Andrology

July 2024 – Andrology is now live on the new WinPath Laboratory Information Management System (LIMS)

Accessing the new WinPath report from NIECR will change from the blood sciences menu to histopathology from the Laboratory drop down menu.

To access results on NIECR:

Patient Summary > **Laboratory** > **Histopathology** drop down options.

The new codes to locate the reports on NIECR are:-

Infertility Specimen - Semen Analysis/ Fertility reports

Vasectomy Specimen - Post Vasectomy reports.

Andrology Did Not Attend - Patient did not attend appointment/Patient Unable to Produce Sample

User Survey Feedback

To view the results of User Survey please select attached pdf document.

User Survey Report 2024.pdf

There were also a number of free text boxes in the survey, which hopefully the following will give clarity to:

Laboratory User Survey Feedback 2024

Over all the survey indicated a high level of satisfaction with the Laboratory Services in the Southern Health and Social Care Trust and we would like to thank everyone that took the time to complete.

An issue that was raised a number of times was the challenges around the Minimum Acceptance Criteria (MAC). Introduced regionally, following a number of serious adverse incidents, its purpose is to enhance patient safety. The Medicines and Healthcare products Regulatory Agency (MHRA) reinforced this when they observed multiple records on laboratory systems, which had the potential to lead to serious adverse outcomes for patients. Some users did make the point that if requesters were contacted, some of these issues could be addressed – however it will be obvious, that trying to contact clinical teams can be extremely challenging at the best of times and with the sheer volume of requests and the resources available such an approach would not be possible. The new computer systems, which facilitate electronic ordering, should address many of these issues. We would, however, like to acknowledge the significant challenge but provide the reassurance that there is now a high level of conformance with all the safety benefits this brings.

One user raised the issue of some printed reports going to the wrong destination – a situation that should be resolved by the implementation of encompass with unique source codes and the purely electronic transmission of results. While another indicated that they would like reports to be returned all at once, however the laboratory needs to release results as soon as they are available rather than introduce additional delays. Again encompass will address this issue as no reports will be printed.

Rejection of specimens due to under fill or over fill is a recurrent issue – the equipment, to avoid issuing wrong results, rejects samples. An image of the sample level is retained.

Some concern was raised in relation to Biochemistry's rejection of some add-on tests. Biochemistry does not have a policy of "no add-ons" but rather restricts add-ons to strictly necessary only; some tests are not suitable for add-on requesting due to stability of analyte or risk of contamination. Guidance for requesting of add-ons is available in the lab handbook.

Issues identified with getting samples to the lab is recognised as a problem for some users – while the laboratory is not responsible for transport or porters it has recently exerted some influence to try and improve the flow of samples to the laboratory, which we hope will benefit everyone. Audits reveal very high compliance with our turnaround times, however we acknowledge that sometimes there are delays due to analyser faults etc. Planned additional capacity in Chemistry in the near future should minimise these downtimes.

In relation to Pathology Reports sometimes taking longer than users would like the issue is multifactorial but we endeavour to get all cases reported in as timely a fashion as possible with the proviso that we prioritise cases based on an assessment of clinical urgency. Where this relates to Cellular Pathology and the turnaround time falls outside our published targets we would encourage formal contact to be made with the senior clinical and Biomedical Scientist team to highlight the issue for appropriate investigation and actions to be taken.

One user pointed out that “Previously Cord Bilirubin levels, if high would be phoned through to a doctor or Midwife in the Post Natal ward” however this service was stopped some years ago. None-the-less, Cord Bilirubin results above 250umol/l are always phoned in line with Royal College of Pathologists guidelines for paediatric bilirubin.

Finally one user indicated that they depended on the GP practice providing reports to the care home, and this caused delays, however this is unfortunately outside of the Laboratory’s control.

Again, we would like to thank everyone that took part in the survey, which helps us understand the issues and, where possible, improve the service.