

Invitation to Provide Specialist Input on SNOMED CT Terminology for Laboratory Test Reporting

Briefing note for Laboratory Experts, Pathologists and Biomedical Scientists

This note invites specialist input to support the development and validation of **SNOMED CT terminology for laboratory diagnostics and patient test results**. Expert advice is needed to ensure the terminology is clinically accurate, semantically precise, and aligned with current laboratory workflows so that test results can be represented consistently across NHS systems.

Purpose of this invitation

The purpose of this work is to improve the semantic accuracy, interoperability and clinical relevance of SNOMED CT concepts used in laboratory test reporting. Better terminology will support safer and more consistent exchange of test results across care settings, improve integration into the Single Patient Record (SPR), and enable more effective patient-facing services through the NHS App.

Why specialist input is needed

Laboratory data are a major component of the clinical record. Around **1.4 billion test result codes** are sent annually from laboratories to GP systems, representing approximately **35% of all coded patient data**. Much of this exchange still depends on legacy Read Codes (PBCL), which may be ambiguous, outdated and insufficiently machine-readable.

Transition to **SNOMED CT and FHIR-based messaging** will improve the quality, consistency and reusability of laboratory data. This is important not only for laboratory systems, but also for clinical decision-making, patient safety, analytics, research, genomics, and patient access to results.

Areas where specialist input would be valuable

1. Validation of SNOMED CT concepts

We would welcome expert review of SNOMED CT observable entities across chemistry, haematology, microbiology, immunology and transfusion medicine. This includes identifying concepts that are missing, ambiguous or not aligned with current laboratory practice.

2. Clinical relevance and semantic precision

Specialist advice is needed to ensure the terminology reflects how tests are performed, reported and interpreted in practice. This includes reviewing distinctions that are clinically important, such as mass versus molar concentration, serum versus plasma, and different analytical methods where these influence interpretation or reporting.

3. Mapping and implementation support

We are also seeking support with mapping local and legacy codes, including codes used in LIMS and middleware, to SNOMED CT PaLM. This may include reviewing mappings for accuracy and reproducibility, and advising on pilot implementation and assurance processes where needed.

Potential impact of this work

Improved terminology will support structured laboratory reporting into GP systems, better integration of pathology and imaging data into the Single Patient Record, and alignment with wider developments in genomics, research, public health, analytics and patient-facing digital services. It will also strengthen the foundations for safe reuse of laboratory data in clinical decision support and future innovation.

Expected outcomes

The anticipated outcomes are more accurate, standardised and computable laboratory results; improved data quality and consistency across NHS systems; stronger support for patient safety and clinical decision-making; and better integration of laboratory data into the SPR and NHS App.

How to contribute

Specialists with relevant expertise are warmly invited to contribute to this work through the Pathology and Laboratory Medicine (PaLM) Informatics Expert Reference Group (ERG), which provides a forum for discussion of terminology validation, clinical relevance and mapping strategy.

Participation in the PaLM ERG is entirely optional. If you are unable to commit to regular involvement, we would still welcome your input on an individual basis so that a broad range of specialist expertise can inform this work.

For further information please contact: Karim Nashar, Terminology Design Specialist at karim.nashar@nhs.net or Karen Mitchell, Pathology Informatics Committee Chair at karen.mitchell15@nhs.scot