



Best Practice when providing interpretative comments on laboratory medicine reports

Introduction

One of the functions of most diagnostic laboratories in the UK is to be able to help provide the requester of a test with an interpretation of a patient's results so as to aid their diagnosis, management or further investigation.¹ Provision of such comments also forms part of laboratory accreditation. There is some evidence that this task is becoming more important as junior medical staff have not had the same exposure to pathology during their training as undergraduates from previous generations. As a consequence, these staff themselves feel they could benefit from assistance.² Healthcare professionals other than doctors are also now involved in requesting tests and receiving results so may likewise value help with interpretation.

Another group who are routinely going to be able to read result reports are patients themselves. It is intended that patients in England will have access to their GP record by April 2015³ and this may not only include future reports, but also those being sent currently and those issued in the past. It is anticipated that contextual hyperlinks linking, for example, to Lab Tests Online will aid patients when they read their results but they are unlikely to be a complete replacement of human interpretation.

This Best Practice document is intended as a guide for those providing interpretative comments. It is self-evident that comments must add clinical value and it is anticipated that many of the recommendations will be second nature to those already involved with this task but others may not yet be routinely practised by all laboratories.

Best Practice

Choosing tests and results to clinically validate

Beyond specialist tests or specific patient groups, it is often impractical to consider clinically validating all test results and, although 'normal' results may occasionally be abnormal for an individual patient, the resource that would be required to review all results from a clinical perspective is unlikely to be justified by the clinical gain. However, use of a laboratory computer to target the selection of abnormal results, or results which have changed substantially from their previous values, is more likely to identify cases which require urgent attention and/or which might benefit from interpretative comments. Although guidance exists on which tests should be telephoned urgently,⁴ there are no agreed criteria for deciding which results on which tests should be considered for the possible inclusion of

interpretative comments, partly because of the wide variety of clinical situations where an individual test might be used. Indeed, it is unlikely that universally applicable criteria could be agreed, given the spectrum of experience of individuals responsible for requesting tests and their familiarity or otherwise with the tests themselves.

Best practice

- **Individual laboratories or, where applicable, groups of laboratories should decide which test results their service users and, in turn, patients would benefit most from by being clinically validated. The service users should be involved in agreeing the criteria used to choose which results and clinical areas will be selected for validation, recognising that some of these users may require more guidance than others. Once patients gain easier access to their own test results it is possible that they will wish to be involved in this process.**
- **The criteria chosen should be readily available to laboratory staff and service users.**
- **The criteria chosen should be reviewed on a scheduled basis. Ideally, this review would be part of a laboratory's audit plan.**

Competence of an individual to add interpretative comments

As the function of adding interpretative comments is to help influence the requester to make the correct management decision for the patient, it is essential that this advice comes from someone who is competent to give it.

Best practice

- **Proven knowledge in, and experience of, providing accurate interpretative comments in respect of the tests being validated is required. For junior staff, this should form part of their competency assessment while under supervision. For senior staff, this could be by formal peer assessment and demonstration of continuous professional development.**
- **Participation and satisfactory performance in an interpretative comments EQA scheme.⁵**

Clarity in providing interpretative comments

The usefulness of adding an interpretative comment depends on the knowledge of the recipient of the test result. Specialists are unlikely to benefit as much by their inclusion as non-specialists.

Best practice

- **Clarity of comment and lack of unintentional ambiguity is essential when providing interpretation.**
- **Comments should only be added when they will add clinical value, such as when stating the potential implications of the results, the further investigations that might address a differential diagnosis and, if competent to do so, suggested interventions. Comments that add no value, for example 'hyponatraemia' with no further comment, are generally not viewed as being helpful.**
- **Reports being returned to requesters who specialise in the condition being investigated are less likely to require comments other than those related to the pre-analytical and analytical phase. However, these specialists may not be as skilled with results from other branches of medicine.**
- **The language used in comments, particularly for investigations requested by primary care, should take account of the fact that the report may also be read by the patient being tested. In addition to avoiding the unnecessary use of medical terms and abbreviations this also means avoiding unsubstantiated statements or wording that could be interpreted as being pejorative.**
- **The identity and designation of the person making the comments should be clear to the recipient of report.**

Standardisation of interpretative comments

While interpretative comments can be written as free text, many patterns of results and clinical presentations lend themselves to standardised (also known as 'coded' or 'set') comments, in some cases generated by the laboratory's information management software on the basis of agreed criteria. Standardised interpretative comments can help minimise the variation in advice given by different individuals.

Best practice

- **Where nationally or internationally agreed interpretative comments for particular tests have been published, strong consideration should be given to their use. For other tests, locally agreed standardised comments can aid uniformity in reporting.**
- **This does not preclude the addition or substitution of bespoke comments where they will obviously enhance or be more helpful than the standard one.**
- **The standardised comments chosen should be reviewed on a scheduled basis. Ideally, this review would be part of a laboratory's audit plan**

Uncertainty when adding interpretative comments

The most appropriate interpretation of a test will often only be provided when the results are placed into the clinical context of the patient. Absent, brief or inaccurate clinical information may therefore hinder or mislead the provision of comments. Even when this has been provided, it may not be obvious to even a competent clinical validator what the most appropriate response should be, either because it is outside of their previous experience or because there are a number of possible interpretations.

Best practice

- **Where insufficient clinical information is provided, the requester should be contacted for clarification of the clinical details of the patient concerned, especially if the interpretation of the test results could differ markedly depending on the clinical context or where it may lead to an obvious or immediate change in the management of the patient.**
- **It may not be possible or feasible to contact all requesters where insufficient clinical information is provided. More harm may arise by speculating an interpretation than by documenting that further advice cannot be given due to the paucity of clinical information. Such speculation may also prove to be confusing or distressing to a patient reading their report.**
- **When the interpretation of a result is not clear despite adequate clinical information, a discussion with laboratory colleagues and the requester may help decide future management and be a source of reflective learning. On occasion, this may require a multidisciplinary team (MDT) meeting to reach a consensus decision. Access to such colleague support is an essential part of an interpretative comments service.**

Reflective testing

There can be circumstances where the result of a test or group of tests will suggest that further investigations should be made to provide a clearer interpretation or confirm a diagnosis in a patient.⁶ However, these additional investigations, known as reflective testing, can raise issues of patient and requester consent.⁷

Best practice

- **When the reflective test has obvious relevance to the initial test(s) requested and/or to the medical condition being investigated or diagnosed then the additional tests can be performed without necessarily contacting the requestor or patient. However, this general principle might first need to be agreed with the service commissioners and users.**

- **If the reflective test could lead to the identification of a disease not originally considered by the requester or unrelated to the initial test(s), then consent should be sought from the patient, usually via the test requester.**

References

1. Kilpatrick ES, Freedman DB. A national survey of interpretative reporting in the UK. *Ann Clin Biochem* 2011; 48: 317-320
2. Khromova V, Gray T. Learning needs in clinical biochemistry for doctors in foundation years. *Ann Clin Biochem* 2008; 45:33-38
3. Hunt says NHS on track for patients' access to their GP records. *Health Service Journal*. <http://www.hsj.co.uk/hunt-says-nhs-on-track-for-patients-access-to-their-gp-records/5068607.article>
4. Out-of-hours reporting of markedly abnormal laboratory test results to primary care: Advice to pathologists. Royal College of Pathologists. www.rcpath.org
5. Pathology Quality Assurance Review. NHS England. <http://www.england.nhs.uk/publications/ind-rev/>
6. Paterson JR, Paterson R. Reflective testing: how useful is the practice of adding on tests by laboratory clinicians? *J Clin Pathol* 2004;57:273-275
7. General Medical Council Consent Guidance. http://www.gmc-uk.org/guidance/ethical_guidance/consent_guidance_scope_of_decisions.asp