

# The signing of laboratory reports

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There is a considerable difference of opinion among pathologists on the importance of signing reports and on the significance of such a signature. This paper, which is based on the guidance which the author gives to pathology trainees, may be of interest to other pathologists and trainees.

## General Aspects

Laboratory reports should be signed to indicate to the clinician that someone in the laboratory accepts a responsibility for the content of the report. Failure to sign is likely to produce a loss of confidence in the laboratory. In any case, laboratory reports should be subjected to some form of check before issue and the signature should be the evidence that such a check has been carried out. As indicated below, checking ideally requires medical as well as technical knowledge, and reports should therefore be signed by a pathologist whenever possible. When this is not possible, reports should be signed by graduate or by senior technical staff who have been trained to do so and who have been provided with a list of abnormal results which require urgent action as described in paragraph 7.

When signing out reports the pathologist should satisfy himself that the pathology service is being properly used by the clinician and efficiently provided by the laboratory. He should check that the request has been made correctly and an appropriate sample properly submitted; that the laboratory staff have carried out the requested tests correctly and without undue delay; that suitable comments on the report are made where appropriate, and that urgent action is taken where indicated. It is important to keep the clinical staff aware of their responsibility to fill in request forms fully and accurately, as this determines to a large extent the quality of the service which the pathologist can provide.

It is clearly impossible for the pathologist to check every aspect of every report as this will be much too time-consuming. These recommendations represent a target to be aimed at and not a minimum standard to be achieved. The pathologist should,

however, check as much as he can and should arrange that at least some reports in each batch are checked for each aspect mentioned here. He should also ensure that his staff assists by looking out for irregularities—eg, specimens which are in the wrong container or are haemolysed or grossly lipaemic, or have been received long after they were taken—and by recording such irregularities on the request form.

## Relevance of Report

The pathologist should satisfy himself that the test performed was that requested, and that all tests have been performed (or a reason given why they were not performed).

## Delays

The pathologist should keep an eye on the dates of taking the specimen, of reception in the laboratory, and of reporting in order to ascertain whether there has been any undue delay in transporting the sample or in performing the test. If an investigation is carried out in more than one stage, delays in reporting should be minimized by interim reports whenever these could be of value to the clinician. Thus in cases of severe infection it may be of great importance to report the microscopy of a smear, the results of primary culture, and antibiotic sensitivity separately as soon as each becomes available.

## Reliability of Report

If the report is one which the signatory has produced himself or has checked directly, eg, bacteriological film and culture, histology report, or bone marrow film, then the pathologist signs to back his opinion. If similar examinations have been carried out by another member of staff and not checked by the pathologist, then the signature should indicate that he is satisfied that the other member of staff is competent to carry out such an examination.

If the result is quantitative, eg, blood counts, plasma electrolytes, it will usually have been produced by another member of staff and the signature

indicates that, so far as can be reasonably determined, the result is of acceptable accuracy. The latter requires not only that the member of staff concerned is competent and that the equipment has been kept in good working order, but also that quality control procedures have been applied where appropriate and that these were satisfactory. The pathologist should ask to see evidence of such quality control before signing.

The pathologist should also satisfy himself that the result is not inconsistent with the information on the request form. Thus if (as happened recently) the request form states that a Dextrostix test performed in the ward was less than 2.2 mmol/l (40 mg/100 ml) in a case of coma, and the blood glucose value is alleged to be 9 mmol/l (160 mg/100 ml), this should not be reported without further investigation.

### Interpretation of Report

The pathologist should ensure that the normal range for the test reported, if not stated on the form, is otherwise available to the clinician. A further help to the knowledgeable clinician would be an indication of the approximate precision of the method used for the test reported. The pathologist should consider whether, in the light of his special knowledge and the clinical information provided, he can usefully comment on the report, and whether he should perform or suggest further investigations either on the same sample or on a fresh one. He should also draw the attention of the clinician to any errors or deficiencies connected with the request, such as failure to provide clinical information where this is clearly necessary either to enable the report to be checked for credibility or to justify the performance of a time-consuming investigation.

### Urgent Action

The pathologist should always consider whether a particular result warrants urgent action irrespective of any such request by the clinician, because some abnormalities, such as hyperkalaemia, may be found when they were not suspected clinically. Hence when a result indicates a condition which the pathologist knows to be dangerous and likely to require action before the report would reach the clinician by the normal channels, he should initiate special action. He should however first consider the possibility of an artefact.

### SPECIMEN

For example, if the potassium level is high he should check the plasma for haemolysis; or, if plasma sodium and chloride are unexpectedly very

low, he should check the possibility that the blood specimen was contaminated by a low-sodium, high-glucose drip into the same arm, eg, by testing the glucose level with Dextrostix, before making specific inquiries of the person who collected the blood.

### DRUGS

For example, high PBI from radiological contrast media etc, or apparently high plasma cortisol from spironolactone etc.

The urgent action to be taken will depend on the the origin of the request.

### Inpatients

The report should be telephoned and the caller should ask the recipient: (1) to write it down and then read it back to ensure that it has been recorded correctly and (2) to inform the doctor on duty immediately. It is often desirable to telephone the doctor directly, especially when an urgent histological report is involved, and pathologists should consult with their surgical colleagues how best a report on a frozen section can be reliably conveyed to the surgeon in the theatre. The telephoning of a report and the time of telephoning should be recorded on the report and initialled. (When reports are sent to outside hospitals, the use of facsimile transmission should be considered.)

### Outpatients

Agreement should be reached with individual consultants as to which reports should be considered urgent, to whom they should be communicated, and in what way. In the absence of such agreement the pathologist should try to get an apparently urgent report to the clinician or his representative by telephone.

### GENERAL PRACTITIONERS

All reports should be sent by first-class mail, posted on the same day when possible, and labelled on the envelope 'Pathology report—Urgent', but even so there is often considerable delay before they reach the GP's attention. Urgent reports should be telephoned. It may however be very time-consuming to contact the GP personally. Arrangements should be made, eg, through the local medical committee, for all GPs using the service to provide a telephone number which is manned at all relevant times and at which a message for the GP can be left. It should be made clear that, if this cannot be arranged, the pathologist cannot accept responsibility for reporting urgent results quickly. (Some laboratories with a busy GP load have found it advantageous to install their own ex-directory outside line which is therefore available at all times for telephoning reports to

GPs and other hospitals, thus bypassing their own hospital switchboard.)

### **Reporting of Urgent Results in the Absence of the Pathologist**

It is desirable that each pathologist should draw up his own list of those results which should be brought to his attention immediately, or which should be telephoned without delay in his absence. If a computer is used for data processing, it should be programmed to identify the listed results in such a way as to bring them to the attention of the laboratory staff. Such a list should be reviewed periodically and kept up to date in the light of new investigations and clinical information. The following are examples of urgent results which might be included in such a list: plasma potassium above 6.5 mmol/l, prothrombin index less than 20%, positive blood culture.

### **Inadequacy of Information on the Origin of the Request Form**

If insufficient information is given to enable the report to be dispatched directly to the originating clinician, the report should be filed in a readily available place to await inquiries, unless it is urgent, when every effort should be made to contact the clinician, eg, through the Records Department using such

information about the patient as has been provided to trace the originator.

If insufficient information is given to permit adequate interpretation of the report, the pathologist should consider whether he should discuss the case with the clinician concerned before issuing a report.

### **Conclusion**

The signing of reports should never be considered an automatic procedure. If the pathologist does not accept the responsibilities indicated above, it is better that he should not sign at all (although he will not thereby necessarily escape his legal responsibility to provide a satisfactory service; see 'Memorandum concerning the signing of pathology reports' by the Medical Defence Union, March 1971). Although it is not implied that all the aspects mentioned above will be considered when signing each report (as this would generally be impracticable) it is suggested that a pathologist of consultant status should adopt this general attitude towards signing if he wishes to fulfil the full role of a consultant.

Although this paper expresses my own personal views, these have been formed after helpful discussions with colleagues who are too numerous to mention individually, but to whom I am greatly indebted.