How safe is your test results system?

Suzanne Creed and Liam Heffernan provide a guide on how to minimise risks from suboptimal lab test results management

THE SAFE MANAGEMENT of laboratory test ordering and results management is challenging and a significant source of error in general practice settings worldwide.[1,2,3]

Managing test results in general practice is a complex process and involves almost all members of the practice team. It is also reliant on robust practice systems as well as outside providers such as IT systems, courier services and laboratories. Unfortunately, it is not surprising that sometimes things go wrong.

The following is an example: a 54-year-old female patient attended her GP complaining of feeling tired all the time. The doctor ordered an FBC, TFTS and a HbA1c. Bloods were taken three days later by the practice nurse and the patient was advised to phone for her results. The patient phoned one week later for her results. The secretary informed the patient that her results were normal, not realising that only the glucose and TFTs were on the file and the FBC had not been returned. The patient attended her GP three months later and it was noticed that the FBC result had not been returned to the practice. On phoning the laboratory the result revealed a possible iron deficiency anaemia. Subsequent investigations concluded a diagnosis of colonic cancer.

Could this happen to you? Is the system you have at your practice effective, robust, and safe?

As we can see from this incident, suboptimal test results management, such as a missed or delayed test result, can adversely impact patient care. At Medisec we frequently see scenarios where a delay in diagnosis occurred because a test was not ordered, the result was mislaid or was not followed up appropriately, resulting in a complaint or clinical negligence claim.

How to minimise your risk

Effective management of test results is challenged by a lack of robust systems and human factors. By developing and implementing good policies and procedures, practices can reduce their risks and thus prevent avoidable harm to patients.

The management of test results in general practice is a highly complex process, with many steps involved, from the initial ordering of the test right through to the patient being followed up. Each step of the process carries a risk of the required action not being taken, either due to human or system error within the process. The following are some practical risk management strategies aimed at minimising your practice risk and ultimately enhancing the quality of patient care provided.

Step 1: The correct test and the correct patient

It is important to clearly document what investigations are required and why they are needed. This means itemising and documenting in the clinical file each individual test requested, eg. 'FBC, U&E, LFTs', rather than recording as 'routine bloods', ensuring that the nurse or phlebotomist undertaking the test has clear instructions as to the exact test required. It is also important to record the indications for the investigations.

The practice should have a good system to follow up on patients who the GP is particularly concerned about and who fail to attend scheduled blood tests. As part of the safety-netting process, the patient should have clear guidance how and when to obtain their test results, whether to call the practice or make another appointment, etc. When ordering or obtaining the blood sample, it is an ideal opportunity to check that the correct contact details for the patient are on file.

Practices should never rely on a policy of 'no news is good news'. The patient's records should reflect the advice given to the patient on how to follow up their results.

The practice should have a system in place to confirm that results of all tests requested are returned to the practice. This will allow for any outstanding blood tests to be readily identified. Some software systems can facilitate this by running a report to identify any outstanding results. However, doctors should also be aware that the person who orders the test has responsibility for reviewing and acting on the test result, even if they were requested by a third party (eg. a secondary care clinician) to order the test.

Step 2: Transport of samples to the laboratory

Samples should be transported to the laboratory in a rigid leak-proof container, clearly labelled and complying with current health and safety regulations. Many practices may use a local HSE courier, who will be compliant with these regulations. If the practice uses a private courier service the practice should ensure compliance with regulations and local guidelines.

Samples that are collected outside routine collection times should be stored in a separate sample refrigerator (not the vaccine refrigerator) if required to do so.

Step 3: Managing results returned to the practice

The practice should ensure it has a robust system for managing all results returned to the practice. Currently, most laboratories communicate electronic results via Healthlink. This is a very efficient and timely process. Results should be downloaded from Healthlink regularly, and the practice should consider delegating the task to a specified member of staff. All results should be workflowed to the requesting clinician on the day of receipt. This important step should be included in the practice protocol.

Results received by post should be date-stamped on arrival at the practice and directed to the referring clinician in a timely manner.

If the laboratory telephones the practice with a critically abnormal result, these calls should be directed immediately to the referring clinician or their deputy.

Practices must also consider their systems for managing critically abnormal results during out-of-hours and ensure that the laboratories are aware of this system.[4]

Step 4: Clinical review and communication of results to the patient

Ideally, the requesting clinician should review and electronically sign (or manually sign if a paper copy) each result in a timely fashion. If the requesting clinician is absent from the practice then a 'buddy system' should be put in place to ensure that no urgent abnormal results are overlooked or that the necessary immediate response/follow-up is delayed.

If a locum is employed for a single-handed GP or to provide long-term cover, it is important to ensure the locum is fully briefed in the practice's test result protocol.

It may help to have a dedicated time for patients to call for their results. The patient's identity should be confirmed, if possible using three identification markers, such as name, address and date of birth, before giving out a result. The practice needs to decide who can provide test results if a patient telephones the practice, eg. doctor, nurse or receptionist.

Significant results should always be conveyed by the doctor. Any communication about test results should only be transmitted to the patient and not to relatives or others without the patient's explicit consent.

Step 5: Patient is monitored through to follow-up

Failure to adequately follow up a patient may lead to a delay in diagnosis of a clinically significant condition. Therefore it is important to ensure that the practice has a robust system in place to track patients who require follow-up in a timely and safe manner. Any communication regarding attempts to contact the patient, such as phone calls and text messages, should be documented clearly in the patient's clinical file.

Test results protocol

The practice's approach to managing test results should be documented in the practice protocol and read by all relevant members of the practice team. It is essential that all staff are fully trained in the process. The protocol should include a method for incident reporting and recording and be subject to regular audit and quality review. If an adverse event occurs, patients should be followed up immediately and appropriately. Any learning from adverse incidents, near-misses or feedback from patients should be discussed and disseminated among the practice team and the protocol reviewed and amended as necessary.

Now is an ideal opportunity to examine your existing test results system. By doing so you can greatly enhance patient safety and reduce the risk of harm to your patients.

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