

Personal risk management — with case histories

Throughout the world, doctors are being required to justify their clinical management more frequently, with an increasing number of accountability systems. Whenever a doctor's clinical practice is criticised, the defence depends upon being able to demonstrate that he or she acted in accordance with accepted medical practice. In other words, a successful defence is dependent upon the backing of experts who, having examined the facts of the case, will confirm that the doctor's actions were reasonable in the circumstances.

No two complaints or claims are identical but there are a number of recurrent themes that can be identified when series of claims are studied. In a review of 1000 claims against general practitioners in the United Kingdom undertaken on behalf of Medical Protection Society, several common clinical scenarios were identified.^{1,2} The largest category for claims was investigation and treatment. Altogether, there were a total of 631 (63.1%) claims that could validly be described as a delay in the correct diagnosis (Table 1).

The most common delay in diagnosis was malignancy, with carcinoma of the breast and carcinoma of the cervix being the most common. With breast carcinoma, the most frequent error was categorising a breast lump as benign, either on clinical or mammographic grounds, when it later turned out to be malignant. In these claims, the defence failed because, on review, there was insufficient evidence to justify taking no further action to determine the true nature of the breast lump.

Table 1. Failure/delay to diagnose and wrong diagnosis

Malignant neoplasms	140
Diseases of the circulatory system	77
Injury, poisoning, and other consequences of external causes	63
Diseases of the digestive system	60
Diseases of the genitourinary system	44
Pregnancy, childbirth, and the puerperium	37
Diseases of the nervous system	33
Diseases of the musculoskeletal system and connective tissue	31
Certain infectious and parasitic diseases	26
Factors influencing health status and contact with health services	22
Endocrine, nutritional, and metabolic diseases	22
Diseases of the respiratory system	17
Congenital malformations, deformations, and chromosomal abnormalities	13
Other	46

Table 2. Carcinoma of the digestive organs

Carcinoma of the colon	11
Carcinoma of the rectum	4
Carcinoma of the anus	1
Carcinoma of the stomach	3
Carcinoma of the oesophagus	1
Carcinoma of the pancreas	1
Other	8

Table 3. Myocardial infarction/ischaemic heart disease

Undiagnosed chest pain	8
Dyspepsia/oesophagitis	7
Congestive cardiac failure	3
Musculo-skeletal pain	3
Chest infection	2
Undiagnosed shortness of breath	2
Mismanaged angina	2
Miscellaneous	7

There were 29 claims stemming from delayed diagnosis of carcinoma of the digestive tract (Table 2). In these cases, a misdiagnosis such as irritable bowel syndrome, colitis, or haemorrhoids had generally been made and, although that may have been reasonable in the first instance, there was no reassessment when the symptom complex changed, casting doubt on the original diagnosis.

Diabetes mellitus was a factor in 40 claims, in 19 of which there was a delay in the initial diagnosis, often in very young or old patients for whom the diagnosis was not even considered. The remainder of the diabetes claims mainly stemmed from inadequate monitoring and consequent peripheral nervous system, visual, and other adverse consequences. Thirty-four claims were linked to ischaemic heart disease and, in 27 patients, resulted in death. In virtually all these claims, a wrong presumptive diagnosis was made with the result that the patient was not admitted to hospital (Table 3).

One hundred and ninety-three (19.3%) claims were linked to medication and prescribing errors. The largest category was drug side-effects (failure to warn or recognise). Of all the alleged medication errors, the most involved steroids—17 involved oral steroids, 12 involved topical steroids, and 11 involved depo injections, typically resulting in subcutaneous fat atrophy. Eight claims were linked to previous allergy to penicillin and three to a known allergy to septrin, while 10 claims stemmed from excessive dosages of phenothiazines resulting in dystonia.

The experience in hospital practice differs in some respects, nevertheless, delayed diagnosis, missed diagnosis, and medication errors are among the most common causes of adverse incidents, as the following examples taken from the *National Health Service Litigation Authority (NHSLA) Journal* demonstrate.³

Example 1

A woman attended a gynaecology clinic complaining of discomfort in her breast. At examination, a small nodule was found and a subsequent mammogram revealed a spiculated area of density just above the nipple in the same region as the nodule. The gynaecologist supposedly performed a lumpectomy at the same time as a gynaecological procedure and the excised tissue was sent for histology. The report

Table 4. Commentary of failures that led to a final tragic outcome

Sequence of events	Failures
A child was a patient in a district general hospital and due to receive chemotherapy under general anaesthetic at a specialist centre. He should have fasted for 6 hours before the anaesthetic, but was allowed to eat and drink before leaving the hospital.	Fasting error. Communication problem between the hospital and specialist centre
No beds were available for the patient on the oncology ward, so he was admitted to a mixed specialty 'outlier' ward.	Lack of organisational resources (beds for specialised treatments) Patient placed in an environment lacking oncology expertise
The patient's notes were lost and not available to ward staff at admission.	Loss of patient information
The patient was due to receive intravenous vincristine, to be administered by a specialist oncology nurse on the ward, and intrathecal (spinal) methotrexate, to be administered in the operating theatre by an oncology specialist registrar. No oncology nurse specialist was available on the ward.	Communication failure between oncology department and outlier ward Absence of policy and resources to deal with the demands placed on the system by outlier wards, including shortage of specialist staff
Vincristine and methotrexate were transported together to the ward by a housekeeper instead of being kept separate at all times.	Drug delivery error due to non-compliance with hospital policy, which was that the drugs must be kept separate at all times Communication error. Outlier wards were not aware of this policy
A junior doctor abbreviated the route of administration to IV* and IT†, instead of using the full terms in capital letters.	Poor prescribing practice
When the fasting error was discovered, the chemotherapy procedure was postponed from the morning to the afternoon list. The doctor who had been due to administer the intrathecal drug had booked the afternoon off and assumed that another doctor in charge of the wards that day would take over. No formal face-to-face handover was carried out between the two doctors.	Communication failure. Poor handover of task responsibilities Inappropriate task delegation
The patient arrived in the anaesthetic room and the senior oncology registrar was called to administer the chemotherapy. However, the doctor was unable to leave his ward and assured the anaesthetist that he should go ahead as this was a straightforward procedure. The senior oncology registrar was not aware that both drugs had been delivered to the operating theatre. The anaesthetist had the expertise to administer drugs intrathecally but had never administered chemotherapy. He injected the methotrexate intravenously and the vincristine into the patient's spine. Intrathecal injection of vincristine is almost always fatal, and the patient died 5 days later.	Inadequate protocols regulating the administration of high toxicity drugs Goal conflict between ward and theatre duties. Poor practice of expecting the doctor to be in two places at the same time Situational awareness error Inappropriate task delegation and lack of training. Poor practice to allow chemotherapy drugs to be administered by someone with no oncology experience Drug administration error

* IV intravenous
† IT intrathecal

revealed that the lump was composed mainly of fatty issue with no evidence of malignancy. No further action was taken until 9 months later when the patient was referred to a surgeon and, following a further mammogram, a lump was excised and found to be a well-differentiated breast carcinoma. In this case, the gynaecologist who undertook the first procedure was not proficient in breast surgery and, when performing the procedure, missed the lump altogether. The absence of follow-up added to the difficulty in defending this case. Doctors should practise within the limits of their experience and ensure proper follow-up, particularly where the pathological report suggests that the primary lesion may not have been excised.

Example 2

A man who injured his back in a motor cycle accident was transported to hospital on a spinal board with a cervical collar in place. On arrival at hospital, he was examined by a junior doctor who simply recorded tenderness over the lower sternum and right side of the lower thoracic spine, but otherwise stated that examination was normal. X-rays of the thoracic spine, chest, and sternum were taken and the doctor reported them as showing no bony injury. The doctor said that the patient could be discharged, should rest

at home, and be reviewed if there was no further improvement. As soon as the patient sat up, however, he found he could not move his left leg and was returned to lying flat. A senior surgeon then reviewed the patient and found inconsistent findings, which he diagnosed as hysteria but admitted the patient to hospital for observation. During the night, the patient complained of being unable to pass urine and he was catheterized.

Several days later, there were further attempts to mobilise the patient despite continuing complaints of motor and sensory problems in his legs. The working diagnosis remained as hysteria and the patient remained in bed. Nine days after admission, he developed breathlessness and cyanosis and suffered a cardiac arrest. At postmortem, he was found to have fractures of the fifth and sixth thoracic vertebral bodies with evidence of bleeding around the spinal cord at that level with deep venous thromboses in both legs and massive blood clots in both pulmonary arteries.

Discussion

Many of the errors that occur in both hospital and general practice stem from system problems, as illustrated by the

example reported in *An organisation with a memory*, complete with a commentary of the failures leading to the final tragic outcome (Table 4).⁴ Despite the long catalogue of errors in this case, the outcome would have been avoided if the junior doctor who administered intrathecal vincristine had known that giving vincristine via this route is usually fatal. Had he been practising within the limits of his own expertise, the outcome could have been avoided. Equally, had the patient with the breast carcinoma consulted a surgeon competent in this field in the first instance, and had the orthopaedic surgeons not relied so heavily on their own diagnosis of hysteria, the outcomes for these two patients would have been different.

Doctors are not infallible and it is folly to suggest that all errors can be eliminated but equally sensible risk management measures can and do reduce exposure to

adverse incidents. The law requires doctors to provide a reasonable standard of skill and care at all times.

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