

Make a technician an active part of the team

By JASON HOBSON

Adopting a “skill mix” approach frees up pharmacist time and enhances the job satisfaction of technicians. This article describes the redesigning of the pharmacy-run anticoagulant clinic at Barnsley District General Hospital to include a pharmacy technician as an active member of the team

Traditionally, all out-patient anticoagulation clinic services were provided by medical or haematology consultants and their teams. Over recent years, there have been moves towards other health care professionals developing specialist skills and taking on some of these roles. For example, pharmacists began running the outpatient anticoagulant service at Barnsley District General Hospital in 1996. Since that time, the demand for the pharmacy-run clinic had increased to the extent that the four remote dosing (postal) sessions and four face-to-face sessions each week were not really enough to serve the approximately 1,800 clinic users. There was also no single point of reference for patients covering clinical as well as administrative matters.

It was therefore decided that the way forward was to adopt a “skill mix” and free some pharmacist time by redesigning the anticoagulant clinic to include the services of a specialist anticoagulant technician.

Pharmacy technicians, like pharmacists, have a high level knowledge of drugs and drug interactions gained both “on the job” and from studying for BTEC qualifications. However, further training and development is needed before a technician can contribute significantly to the workings of the anticoagulant clinic. The approach taken to this training and development at Barnsley District General Hospital was:

- Define the core competencies of a specialist anticoagulant technician
- Assess the extent to which the “generic” technician training meets these

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- Design specialist teaching packs to address the shortfall in knowledge
- Attend relevant local and national training courses
- Visit relevant clinics and laboratories, and observe relevant medical procedures
- Undertake practical training by working under supervision

CORE COMPETENCIES

The anticoagulant clinic service manager decided on the core competencies that a specialist anticoagulant technician would need (see Panel 1). They then discussed the contents of the current BTEC syllabus with the BTEC regional co-ordinator to determine the extent to which generic technician training met these requirements. Hence, areas where further training and development were required were highlighted.

TEACHING PACKS

The next step was to perform a comprehensive literature search of Pharmline, Medline and the internet to see if other hospitals had undertaken similar projects. These identified one other hospital that had a specialist anticoagulant technician, which the technician visited to share ideas. Neither that hospital, nor any others, had a formal anticoagulant teaching package that was believed to be suitable for use in Barnsley District General Hospital, so a team of anticoagulant pharmacists and haematology consultants set about writing in-house teaching packs for haemostasis, pulmonary embolism, pharmacology and drug interactions, cardiac conditions, deep vein thrombosis (DVT) and thrombophilia.

The teaching packs were structured in a similar way to the distance learning modules often used by the universities for post-graduate pharmacy diplomas, with each

pack consisting of learning objectives, a reading list and lists of tasks and activities, such as short answer questions, true/false style questions and essays

Each pack took approximately six hours to work through and was followed by a two-hour tutorial given by the anticoagulant service manager. On completion of the full six teaching packs and the associated tutorials, a formal assessment was undertaken by sitting the “pharmacist’s anticoagulant role-playing test”. This is the test used at Barnsley District General Hospital to train anticoagulant pharmacists, and it replicates some of the actual therapeutic problems that have been encountered in clinical practice. It was important that all those dealing with patients in the anticoagulant clinic met this standard, to ensure that clinical situations and problems would be dealt with in a consistent manner.

The technician attended various local and national training courses. They also visited other relevant clinics and laboratories at their own hospital (such as the outpatient DVT clinic run by nurses, and the coagulation laboratory where INRs are obtained from patients’ blood sample), and observed various medical procedures, such as a cardio-

Panel 1: Core competencies

- Accurately interpreting INR results
- Calculating dosage adjustments
- Counselling patients about their anticoagulant medicines
- Identifying drug interactions with anticoagulant medicines
- Answering patient queries via the telephone help-line
- Assisting in the recall of patients who fail to attend
- Assisting in service audits

conversion on the coronary care unit, VQ scan to diagnose pulmonary embolism, and a Doppler scan to diagnose DVT. For each clinic or laboratory visited or procedure observed, the technician “read around” the subject before attending.

PRACTICAL TRAINING

At the same time as the formal structured learning took place, technicians were given the opportunity to shadow staff in the clinic setting and work on straightforward cases under the supervision of a pharmacist. As time went on more complicated cases were dealt with by the technician, under pharmacist supervision.

Before being allowed to work unsupervised, competence had to be displayed by correctly dosing 50 consecutive patients. If any mistakes were made then the count returned to zero until 50 consecutive patients had been dosed correctly. A form

was used to record how many consecutive patients were dosed suitably (see Panel 2). On passing this test, the technician was allowed to dose patients who had an INR of 2.0–3.0 and who were within ± 0.7 of their target INR without further supervision. As time went on this was extended to all patients with an INR of up to 4.0, and then to patients with any INR.

This structured and practical approach to learning allowed the technician to develop

their knowledge base while at the same time being aware of any training or learning deficiencies. Each topic built upon previous lessons allowing the technician to gain confidence such that eventually the most complex cases could be tackled with assurance.

BENEFITS

The specialist anticoagulant technician gained from their extended role in that

Panel 2: Form for recording consecutively dosed patients

Right/wrong	Patient name	Unit number	Consecutive numbers	Comments
right	Mr A	123456	1	
right	Mrs B	234567	2	
right	Miss C	345678	3	
wrong	Mr D	456789	0	Exceeded review date
right	Mrs E	567890	1	

Not real patients – for illustrative purposes only

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they achieve job satisfaction by being a valued member of a team. Other technicians within the organisation feel more empowered and better able to move into traditional clinical pharmacist areas, providing appropriate support is in place.

Patients using the anticoagulant clinic also benefit from the addition of a specialist anticoagulant pharmacy technician to the care team. For example, they now have a dedicated telephone help-line and a single point of reference for information and advice on all aspects of their care, as well as for "domestic" enquiries concerning appointment times and transport arrangements. A fifth weekly face-to-face session has been introduced.

Importantly, there has been no reduction in the quality of care patients receive at the anticoagulant clinic. Audit data, based on the British Committee for Standards in Haematology audit standards, indicates that, following the introduction of the

anticoagulant technician, the service is still achieving both national and local performance standards. Formal and informal feedback shows that patients are generally happy with the service.

It has been estimated that the arrangement has released a minimum of 25 hours of pharmacist time per week. This is particularly important in view of the current problems in recruiting and retaining pharmacists. It also means that patients elsewhere in the hospital benefit, since this pharmacist time has been redirected to patient-centred pharmaceutical care on the wards.

Barnsley District General Hospital has benefited from the national interest directed toward the anticoagulant technician position. It also has training material and know-how which should be useful in the training of future anticoagulant technicians. Similarly, the necessary attributes of an anticoagulant technician have been identified, and a person specification produced.

THE FUTURE

The role of the pharmacy technician has changed dramatically over the years, and it is continuing to evolve. The traditional dispensing role will probably not exist in ten years' time, and so many pharmacy departments are considering how to redesign their services and how to make better use of the skills of technicians.

Providing they are correctly trained and supervised, pharmacy technicians should be more than capable of undertaking many of the tasks currently performed by pharmacists. The anticoagulant services technician role represents a challenging, exciting and rewarding opportunity.

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