

# Comparing the role of pharmacy technicians in the US and UK

By **Judith Telford**, RegPharmTech, and **Nirmala Soma**, RegPharmTech

While in Orlando to present their award-winning AAH Technician of the Year 2004 projects, Judith Telford and Nirmala Soma took the opportunity to visit the Florida Celebration Hospital and discover what it is like to work as a pharmacy technician there. This article sets out their findings, drawing some comparisons with UK practice



The job title is the same — but are the roles for pharmacy technicians similar on either side of the Atlantic ocean?

**G**eographically, Florida is some way from Leicester and Northumberland. While attending the mid-year clinical meeting of the American Society of Health-System Pharmacists in Orlando in December 2004, to present our AAH technician of the year award projects, we set about finding whether the difference in miles translated into a difference in working practices, comparing and contrasting the role of pharmacy technicians on both sides of the Atlantic ocean. To do this we visited the Florida Celebration Hospital, a 100-bed hospital that is part of a seven campus system of hospitals in Florida, which in turn is part of an even larger hospital group in south east America. This article sets out our findings.

## Pharmacy set-up

The pharmacy department at the Florida Celebration Hospital is divided into an out-

patient and an inpatient unit. Approximately 100 items per day, including prescriptions from outside the base hospital, are dispensed by staff at the outpatient unit. The inpatient unit is open from 7am to 11pm, 365 days per year, while the outpatient unit is open from 8am to 7pm each day. The pharmacy department employs four whole-time equivalent pharmacists and four technicians. From this number, one pharmacist and one technician work in the outpatient unit.

Compared to UK hospitals, such as Wansbeck General and Glenfield, there are clearly fewer technicians employed in the Florida Celebration Hospital. However, US hospitals tend to be smaller, and so the ratio of technicians to hospital beds seems to be about the same in both countries — approximately four technicians per 100 beds. However, additional pharmacy staff, such as assistant technical officers (ATOs), are employed (in about the same numbers as technicians) by UK hospitals.

## Technician qualifications

It was surprising to find that not all states in the US require their technicians to be “certificated” — that is, have a formal qualification. Florida is one of the states that

does not although, at Florida Celebration Hospital, all technicians are qualified and a formal training programme is in place. Training programmes vary between states and individual hospitals. Those requiring technicians to be certificated use the same training programme, developed throughout the US by the Pharmacy Technician Certification Board. More and more states are requiring this qualification as standard. There are now more than 170,000 certificated pharmacy technicians in US, most being based in Texas. The requirements for certification are:

- A high school diploma (or equivalent)
- Successful completion of the training programme
- Completion of a specified number of hours of training
- Pass result obtained in final exam

Technicians are generally graded according to experience. With experience also comes role extension (see Panel 1, p380). Terms and conditions of work vary between states and between individual hospitals. Full time hours are classed as 9am to 5.30pm, Monday to Friday. Technicians do not work at weekends. There is also a great variance in remuneration for pharmacy

**Judith Telford** is aseptic services manager at Wansbeck General Hospital, Northumberland and **Nirmala Soma** is community services co-ordinator, Glenfield Hospital, University Hospitals of Leicester NHS Trust

technicians, although wages are increased according to experience, duties performed and whether or not a technician holds a formal qualification.

Formal qualifications are now mandatory for technicians working in UK hospitals. For example, all technicians at Glenfield and Wansbeck General Hospitals either have, or are working towards, NVQ level 3 in pharmacy services, supported by a BTEC in applied pharmaceutical science, or an equivalent qualification that is relevant for registration with the Royal Pharmaceutical Society. After qualification, technicians are expected to participate in continuing professional development, including obtaining additional qualifications such as the accredited checking certificate, "A1" and "V1" certificates to enable NVQ assessment and verification respectively, NVQ level 3 in management and regionally-provided medicines management certificates. Registration is likely to be compulsory sometime in 2008.

Technicians in the US tend to train and work in a specific area — (eg, outpatients dispensary, inpatients dispensary, drug ordering and so on) whereas those in the UK can often work in a variety of areas — for example, splitting their time roughly equally between dispensing and medicines management roles.

## — Dispensary roles

Technicians in the US tend to have what we would probably consider a "supply" role, similar to that of an ATO or dispensing assistant in the UK. Their duties include:

- Dispensing and labelling drugs required on prescriptions (Not all hospitals allow their technicians to reconstitute antibiotic syrups.)
- Contacting drug companies and wholesalers to place orders for drugs
- Pulling ward orders from the computer, processing, charging and delivering these
- Replenishing emergency cardiopulmonary resuscitation boxes
- Returning excess drugs from wards
- Prepacking loose tablets into unit doses (eg, loose tablets are cut in half and the pieces then prepacked, using the manufacturer's expiry date)
- On occasion, measuring out single doses of liquids or doses into oral syringes (Liquids are generally dispensed in whole bottles and oral syringes are then packed into unit dose blisters.)

At the Florida Celebration Hospital, every drug order must be reviewed by a pharmacist. It is pharmacists who update the patient's computer records and verify the prescription at the same time. Patient records are then e-mailed to wards, so that nurses can administer the medicines. All final checks of prescriptions are also performed

## Panel 1: Gradings and duties of pharmacy technicians in the US

- Grade 1: basic dispensing duties
- Grade 2: basic dispensing duties plus dispensing intravenous drugs
- Grade 3: basic dispensing duties, dispensing intravenous drugs, plus dispensing intravenous chemotherapy

When dispensing intravenous chemotherapy or intravenous antibiotics at the Florida Celebration Hospital, a technician attaches the relevant drug vial to the infusion bag by means of a reconstitution device, which is effectively a "closed system". This is carried out in a laminar air flow cabinet, situated in a room off the main dispensary. A separate cabinet is used for cytotoxic drugs and antibiotics. There is no batch segregation. The chemotherapy and the infusion fluid are not mixed together until they reach the ward, where this is done by a member of the nursing staff.

by a pharmacist. There is no opportunity in the US for a technician to undergo extra training to become an accredited checking technician. If a patient requires counselling about their medicines, then this is always done by a pharmacist.

This situation clearly differs from that found in hospitals in the UK. For example, at Wansbeck General Hospital, the dispensary itself operates as a "pharmacist-free zone", with prescriptions being validated by a pharmacist before they reach the dispensary. Dispensing is carried out by ATOs and checked by accredited checking technicians. Similar systems operate at Glenfield Hospital for inpatient prescriptions, although a pharmacist provides a clinical check of outpatient and discharge prescriptions while in the dispensary.

## — Ward-based role

Again, technicians' ward-based work in the US seems limited to supply functions. In particular, it is the job of technicians to fill up the "Pyxis" drug stations on each ward. These are the automated drug distribution and computer systems that are used to dispense unit doses to inpatients. They are also used to charge out drugs to individual patients — there is no NHS in the US (although the over 65s receive free care via the Medicare system and hospitals for veterans are federally funded) and patients are required to meet the cost of all of their medical care, generally through health insurance. Although technologically advanced, the drug stations seem to have a tendency to breakdown, resulting in nurses operating the "critical override" function and thereby being able to access all the medicines stored in them at any one time and not just those for a specific patient.

The clinical role of technicians seems to be underdeveloped in the US, compared with the UK. Technicians at the Florida Celebration Hospital do not have any patient contact and there are no opportunities for them to develop real clinical roles. Instead, a clinical technician in the US would be involved in, for example, data entry onto the computer. There is no apparent technician

involvement in clinics. The fact that technicians can have ward-based medicines management roles and clinical involvement (such as counselling patients and carers about their medicines and treatment and reviewing drug charts and prescriptions for drug problems, which they then refer to a pharmacist), is now taken for granted in the UK, provided that they are appropriately trained.

## — Management roles

Management roles for technicians seem also to be non-existent at the Florida Celebration Hospital. Pharmacy technicians working there said that, instead, they came to "group decisions on workflow and other issues".

Again, the contrast with the situation in UK hospitals is clear. At Glenfield Hospital, management positions held by technicians include dispensary team leader, community services co-ordinator, stores and distribution senior technician, pharmacy clinical trials co-ordinator and assistant services manager (responsible for the operational management of the pharmacy department). Training roles are also commonly held by technicians in the UK. At Wansbeck General Hospital, technicians are currently responsible for training and developing ATOs to become involved in the aseptic preparation of cytotoxic injections. It should, of course, be noted that the smaller size of hospitals, and the fewer number of technicians and other staff employed at each, may well make real management opportunities for technicians in the US less feasible than they are in the UK.

## — Conclusion

The job title "pharmacy technician" is used both in the UK and the US. However, the roles of those using it seem to differ greatly. In general, roles for technicians are far more developed in the UK than in the US. The larger size of hospitals and the national nature of the health care system in the UK may well contribute towards this. Some aspects of technology (such as electronic transmission of patient records and ward-based automated dispensing) that technicians encounter seem more advanced in US, than UK, hospitals.