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Pharmacy in Singapore

— comparing experiences in the UK and Asia

By Victoria Coleman, MRPharmS, PGDip

After four years of working as a clinical pharmacist at a teaching hospital in London, Victoria Coleman left the UK to work in Singapore. In this article she describes the Singaporean health system, the requirements for registering as a pharmacist and her experiences of working in the intensive care unit of the National Heart Centre in Singapore



Pharmacy technicians in Singapore are being trained to counsel patients on warfarin therapy

Singapore is one of the most multi-cultural cities in the world. It is often described as a “melting pot” where different ethnic communities live and work alongside each other. In contrast to other parts of South East Asia, English is the official business language in Singapore and this makes living and working here more viable for Westerners. Singapore is leading the way in the development of many industries in South East Asia, with a focus on science and health care.

The health care system

The health care system in Singapore is divided into private and government-subsidised sectors. Private family doctors (the equivalent of GPs) hold daily clinics in the community. Anyone can pay to see a doctor without a prior appointment and patients can register with more than one practice. The consultation fee, which is guided by the Singapore Medical Association and the Ministry of Health, is usually affordable to a

household with an average income. Family doctors often work alone rather than in group practices and are able to refer patients to specialists in the public or private sectors, as well as offering services such as minor surgery, diabetes monitoring and simple cosmetic procedures.

Patients can also see a family doctor at polyclinics, which cater for more basic health care needs. Polyclinics are heavily subsidised by the government, so that no one is deprived of primary health care on the basis of cost, and staff can refer patients for tests or to specialists in secondary or tertiary care. There are currently five public general hospitals in Singapore and several public specialist hospitals. In addition, there are twelve private hospitals where patients can pay to see a specialist without a referral.

Health care in Singapore is subsidised by the government at different levels depending on how much an individual can afford to contribute. There are generally three financial classes of patients: A-class (full paying), B-class (subsidised by the government) and C-class (heavily subsidised). The accommodation given to patients on hospital wards depends on their financial class. A-class patients stay in single rooms with air-conditioning whilst B and C-class patients

share rooms of four to 10 patients, many rooms being cooled by electric fans.

The cost of some commonly used medicines (classified under the Standard Drugs List by the Ministry of Health) is subsidised for both inpatient and outpatient use. Newer or branded medicines (outside the Standard Drugs List) are charged at full price to all patients. Standard drugs are usually generics and are inexpensive for hospitals to acquire. The group purchasing office of the public health care institution negotiates prices for tenders and bulk purchases.

All Singaporean citizens or permanent residents and their employer contribute 20 per cent and 13 per cent, respectively, of their monthly salary to a central provident fund (CPF). This fund acts as a saving scheme and can be used to cover basic hospital bills or as a pension. The money from CPF can also be used to buy health insurance to cover any large medical bills. Medicines obtained from outpatient clinics are generally not deductible from the CPF but are paid for in cash. However, the government has recently introduced schemes for chronic conditions such as diabetes, stroke, hypertension and hypercholesterolemia where patients can use their CPF to pay for long-term medicines and appropriate tests.

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Panel 1: A typical day in a hospital pharmacy in Singapore

- **8.30am** Attend consultant-led ward round
- **9.30am** Review drug charts (each pharmacist will see 70–80 charts in about two hours)
- **11.30am** Return to pharmacy with drug orders and help technicians pack and check drug orders and discharge prescriptions
- **12.30am** Take discharge medicines to the wards and counsel patients
- **2pm** Lunch
- **2.30pm** Type labels, pack and check drugs for patients whose drug charts are brought to the pharmacy. One or two afternoons per week have protected time to follow up complex cases on the wards, work on projects or attend clinical discussions.
- **6pm** Finish work

Pharmacy regulation

Singapore's Pharmacy Board is a regulatory body and is separate to the Pharmaceutical Society of Singapore (PSS) that represents the profession. Registration with the Pharmacy Board is compulsory in order to practise as a pharmacist in Singapore and must be renewed annually by the payment of a retention fee. It also requires the fulfilment of continual professional education (CPE) requirements, based on a points system. Each accredited lecture, seminar or conference is worth a certain number of points and pharmacists must enter these into an online record. Pharmacists need to acquire at least 50 points over two years to stay registered with the Pharmacy Board.

The aim of the PSS is "to maximise the contribution of pharmacists to the health-care of Singaporeans". Membership is voluntary and must be renewed annually by the payment of a fee. The PSS organises CPE talks, an annual pharmacy conference and "Pharmacy week", during which displays and booths are manned by pharmacists at local shopping centres to promote the safe use of medicines and the role of the pharmacist. Membership with PSS allows members to attend CPE talks free of charge or at a reduced price.

The PSS has also developed links with Singapore's national newspaper, *The Straits Times* and publishes a weekly "ask your pharmacist" column.

Registration requirements

Graduates from Singapore must undertake a four-year pharmacy degree and one year of preregistration training. They can then work

as a pharmacist following a successful pre-registration appraisal and registration with the Pharmacy Board. For foreign graduates, registration requires the following:

- A degree in pharmacy recognised by the Singapore Pharmacy Board
- Proficiency in English
- A job offer to work as a pharmacist from one of the institutions in Singapore
- Completion of preregistration training (minimum of three months) at an approved training centre and the submission of relevant documents
- Passing the forensic law exam (held in Singapore twice a year)
- Payment of a registration fee

The pharmacist's role

In the community most family doctors train their receptionists or clinic assistants to dispense medicines without the presence of a pharmacist. Community pharmacy, therefore, mainly consists of over-the-counter sales and it is rare for a patient to present a prescription for dispensing.

The supply of medicines from dispensaries is still the major role for hospital pharmacists in Singapore. The vision for the near future is for more pharmacists to be ward-based and to take an active role in the multidisciplinary team at the point of prescribing. Strategies such as automation, electronic prescribing and centralisation of inpatient services are being introduced to help achieve this goal.

The need for more pharmacy technicians in Singapore is also a factor limiting pharmacists' roles on the wards. This is being addressed by opening more training institutes. Foreign pharmacists with degrees not recognised by the Pharmacy Board are also increasingly being employed as technicians. The ratio of pharmacists to technicians is currently about 1:1 and the aim is to shift this to 1:2, extending the roles of technicians to take on duties such as warfarin and inhaler technique counselling, and central venous additive services.

Careers As in the UK, preregistration trainees often rotate through different departments in their training year before specialising in one area. Pharmacists are

assigned to one of five grades depending on their experience. A newly qualified pharmacist enters at grade 12 and a senior pharmacist would be considered grade 14. The highest grade is that of a senior principal pharmacist, assigned at grade 16. Moving up the grades is based on individual performance assessed via an appraisal system.

The career pathway for pharmacists is currently under development but there are broadly three paths that a hospital pharmacist can take: administration/management, clinical or research. Plans to produce an official specialist register of pharmacists and the qualifications and experience required to have a place on this register are currently under discussion by the Pharmacy Board.

The government is keen to develop research in Singapore and has recently made significant investments in this area. Pharmacists are in an ideal position to become involved in research, especially in areas such as pharmacogenomics, pharmacokinetics and pharmacodynamics.

Working hours The working hours of a hospital pharmacist will vary, but are generally based on a 42-hour working week. Official hours are 9am to 5.30pm Monday to Friday and 8.30am to 1pm on Saturdays, depending on the organisation and department. Sometimes pharmacists will work all day on a Saturday or Sunday and pharmacists may be scheduled to do opening or closing shifts as well as on-call duties. Outpatient pharmacists work longer hours during the week but have a reduced number of Saturday duties. Many pharmacists also come in early for consultant-led ward rounds. Panel 1 summarises a typical day for a hospital pharmacist in Singapore.

Intensive care Apart from the time allocated for visiting the ward, working as an intensive care pharmacist in Singapore is similar to in the UK. However, full-time clinical positions are not yet widely available and many intensive care pharmacists attend ward rounds in their own time. This helps promote the role of clinical pharmacists on the wards and their presence and expertise is welcomed by the other staff. There are many opportunities to develop the role of the intensive care pharmacist, including

Panel 2: Sources of information

Further information about the subjects below can be found at the following websites:

- Registration as a pharmacist in Singapore www.spb.gov.sg
- The Pharmaceutical Society of Singapore www.pss.org.sg
- Applying for visas and work permits www.ica.gov.sg
- The cost of living in Singapore www.iras.gov.sg
- Practical advice about living and working in Singapore: www.singaporeexpats.com

using audit and research to help drive evidence-based practice and developing prescribing guidelines to support this. The pharmacist also has a role in advising prescribers on the multidisciplinary transplant teams about therapeutic drug monitoring for transplant recipients.

— Finding employment

Employment opportunities can be found on individual hospital websites, on the PSS website (see Panel 2, p97), in the *Straits Times* (especially on Saturdays), by registering with online employment agencies or sending

“Careers” articles

This series profiles different careers available to hospital pharmacists and is designed to give pharmacists a “taster” of working in different specialities. Any hospital pharmacist who has an idea for an article or who is considering writing about their career is invited to contact the editorial office on 020 7572 2425/2419. Ideas can be e-mailed to hannah.pike@pharmj.org.uk or rachel.graham@pharmj.org.uk. Articles can be sent by post to *Hospital Pharmacist*, 1 Lambeth High Street, London, SE1 7JN.

your *curriculum vitae* to the head of pharmacy at that institution. Telephone interviews are often conducted for overseas candidates.

For foreign pharmacists an employer must sponsor an employment pass. Part-time positions are available but employers are not always keen to sponsor work permits for these. Once you are employed in Singapore you can apply for a permanent residence (PR) pass that enables you to stay in the country even if you are not employed and gives you access to a greater range of jobs, since some jobs (often in the pharmaceutical industry) are only open to Singaporean citizens or permanent residents.

A PR pass (or a dependant’s pass, available for married couples if one partner possesses an employment pass) is required if you wish to work as a locum. However, locums are likely to be offered fewer hours than permanent employees. In addition, pharmacists need to re-register their licence at each new place of employment which makes things difficult for locums moving from one institution to another.

— Cost of living

The cost of living in Singapore is cheaper than in the UK, although it is expensive compared to most of South East Asia. A

pharmacist working in Singapore can expect to earn about one third of the salary for an equivalent job in the UK. Tax is lower than in the UK and can either be paid in instalments over 12 months or as one lump sum.

A hospital pharmacist will typically pay S\$900 tax on the first S\$40,000 of their salary, and 8.5 per cent on the next S\$40,000. Some companies and institutions pay a 13th month salary that covers this. For comparison, the cost of renting a three bedroom apartment with a swimming pool will cost about the same as renting a one bedroom flat in London.

— Summary

Employment as a hospital pharmacist in Singapore will initially involve being based in the dispensary, packing and checking medicines. However, the increasing investment in pharmacy technician training and the introduction of automation will help to support the supply element, enabling clinical pharmacists to be released from the dispensary.

There are increasing opportunities for pharmacists to move into full-time clinical roles and research positions and the next few years will be key to the development of hospital pharmacy in Singapore.