

A career as a . . . specialist

HIV pharmacist

By Haley Hill, BSc, MRPharmS

HIV drug therapy is a fast-moving area. This article looks at the how the role of an HIV specialist pharmacist has developed and discusses important issues unique to this area of pharmacy



TDM is becoming an important part of anti-HIV drug therapy monitoring

HIV is a disease for which treatment is entirely drug-based. Therefore pharmacists play an important role in the multidisciplinary management of HIV therapy. This article, based on interviews with several specialist HIV pharmacists, looks at what is involved in such a role and how the management of HIV therapy differs from other areas of clinical pharmacy.

Background

“HIV is a relatively young specialty,” said Heather Leake Date, principal pharmacist for HIV and sexual health at Brighton and Sussex University Hospitals NHS Trust. She said that it has only been in the last 15 years or so that consultants have been trained specifically to specialise in HIV. “It is only recently that there has been a growth in pharmacists that specialise solely in HIV. In some small HIV units, pharmacists still work across two specialties,” she explained.

Elizabeth Davies, lead directorate pharmacist for HIV and genito-urinary medicine at Chelsea and Westminster Hospital, London, explained that HIV pharmacists are an integral part of the multidisciplinary team. “Because the treatment is entirely drug-based, pharmacists’ input is respected as an invaluable contribution to the management of HIV therapy,” she said.

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Counselling

Drug therapy for patients with HIV is generally a life-long commitment. Appropriate counselling is fundamental to ensure compliance and ultimately the best patient outcome. “HIV therapy requires a high level of adherence to work effectively. An adherence rate of approximately 95 per cent is required for effective treatment,” said Ms Leake Date. She said that it is also important to assess the patients’ health beliefs and ascertain any barriers to treatment that there may be. “You have to have some understanding of health psychology to counsel HIV patients and you have to use different approaches in supporting patients with their treatment,” she said.

Jennifer Swan, senior HIV pharmacist, Newham University Hospital, said that her role within the HIV multidisciplinary team has been extended to tackling issues within the community which may lead to barriers to treatment for some patients. “Some patients are told by religious leaders not to take their drugs as God will cure them. This is an extremely sensitive and ethical issue involving education of the patient and the community,” she said.

Interactions

Drug interactions are a significant problem within HIV therapy, explained Ms Davies. She said that there are many significant interactions between the anti-HIV drugs themselves and other drug therapy that the

patient may be taking. “Such interactions are well documented and the dose adjustments can be complicated. We generally refer to recommended dosing adjustments based on pharmacokinetic studies rather than TDM [therapeutic drug monitoring],” she said. “Although TDM does also have a place in the monitoring of HIV therapy.”

Ms Leake Date commented that TDM is likely to play an important part in HIV treatment in the future, particularly in protease inhibitor therapy. “PIs are substrates for cytochrome P450 and P-glycoprotein, which results in a potential for marked inter-patient variability of drug levels,” she explained. “Non-nucleoside reverse transcriptase inhibitors are also metabolised by cytochrome P450 and can be monitored by TDM, but with nucleoside reverse transcriptase inhibitors it is the intracellular levels that are important, so this is more tricky to monitor,” she said. At present TDM is only being performed on a small scale, but it is likely that it will start to be used more widely. “This is an area in which the pharmacist may take on an extended role in the future,” Ms Leake Date said.

Ms Davies gave the example of rifampicin interacting with antiretrovirals. “There are many HIV patients who have co-existing tuberculosis, therefore rifampicin is commonly prescribed with antiretrovirals.” She said that the summary of product characteristics for most antiretrovirals contains a statement regarding the interaction with rifampicin and lists recommended dosage adjustments.

Career history — Elizabeth Davies

Elizabeth Davies began her career in 1994 as a preregistration trainee at University College London Hospitals NHS Trust. A year later she took a post as a rotational resident pharmacist at Chelsea and Westminster Hospital. "Residency provided me with a broad range of pharmacy experience via rotations through all sections of the pharmacy department. It was in this role that I developed an interest in HIV pharmacy," she said.

In 1996, Ms Davies took the position of senior pharmacist for HIV and genito-urinary medicine at the same hospital. She was in this role for three years, during which she completed the University of London School of Pharmacy diploma in pharmacy practice. "As a clinical pharmacist within the HIV speciality I gained experience working within a multidisciplinary team as well as the opportunity to act in a supervisory and training role to junior pharmacists," she explained.

In 1999 Ms Davies took on her current post at Chelsea and Westminster Hospital as lead directorate pharmacist HIV and genito-urinary medicine. She has been in this post for six years. During this time she has completed a supplementary prescribing course at Kings College, University of London. "This enabled me to help set up the Option E service within which I could prescribe patients' anti-HIV drugs," she said. In October 2003, Ms Davies also took on a nine-month secondment, two days per week, in the role of clinical trials manager in HIV and genito-urinary medicine research department.

"My role as lead HIV pharmacist within a large HIV centre has provided me with a diverse range of experience, including service management, financial drug reporting, writing clinical guidelines, responsibility for clinical trials, opportunities to carry out research, being a source of drug information at a national level and much more," she concluded.

Ms Leake Date gave an example of a patient taking antiretrovirals and using a fluticasone inhaler who developed Cushing's syndrome as a result. "Patients do not always perceive inhaled preparations as being a drug, and this is where counselling and patient education comes in," she explained. Ms Leake Date also highlighted the importance of educating the patient on the possible interactions between HIV therapy and recreational drugs and herbal supplements.

Managing therapy

Ms Davies explained that managing patients' therapy is an important aspect of an HIV pharmacist's role. "The patients will be taking these drugs for life. It is important that therapy is managed seamlessly so it does not interfere with their work and other aspects of their life," she said.

She went on to say that at Chelsea and Westminster Hospital, an e-mail clinic "Option E" has been set up. She explained that the patients come to clinic out-of-hours, for example in the evening, and have their blood sample taken by a nurse. The blood results are reviewed and interpreted and then e-mailed to the patient. Having completed a supplementary prescribing course, Ms Davies has been able to write the prescription. The drugs are dispensed and delivered to the patient's address. "This is a relatively new service and, currently there are around 75 patients registered with the Option E clinic," she said.

Ms Leake Date said that at her hospital there is a team approach to the management of patient therapy. She explained that the multidisciplinary team have weekly meetings. "If the viral load is detectable (ie, >50 copies/ml), the patient case is presented to the team and discussed," she said. "There may be several explanations for a detectable viral load, for example recently initiated therapy that has not had a chance to work yet." She explained that the possible causes are discussed within the team and a team decision for the future management of therapy is made. "A pharmacist's input is fundamental in these meetings," she said.

New drugs

"Anti-HIV drug development is a fast-moving area, with the US Food and Drug Administration often fast-tracking drugs for approval," explained Ms Davies. She said that this means new anti-HIV drugs are often available for use before they have been granted a UK product licence.

She said that, in her role, she is involved in managing the entry of such drugs. "This involves assessing eligibility criteria and liaising with pharmaceutical companies," she said. She explained that she contributes to drug guidelines within her trust and is involved with the London HIV New Drugs Group. The group reviews the evidence for new drugs, looks at the clinical- and cost-effectiveness of the drugs and ultimately approves them (or not) for use.

Clinical trials "Because of the rapid development of new drugs, clinical trials are another aspect to my role as lead HIV pharmacist," Ms Davies said. "Currently we are conducting approximately 45 HIV clinical trials." HIV pharmacists will inevitably have some involvement in clinical trials and need to be familiar with European Union directives and International Conference on Harmonisation good clinical practice standards for conducting such trials, she explained.

Funding

Ms Davies explained that because anti-HIV drugs are expensive and therapy is life-long, the drug budget she manages forms a significant proportion of the trust's overall drug budget. "I have to liaise with the finance managers, the London HIV Consortium, consultant medical staff and the pharmaceutical industry on funding issues," she said.

In London, the commissioning of HIV therapy has been recently centralised via the London HIV Consortium. "This allows patients to receive the same [approved] therapy from whichever hospital they attend," she said. She pointed out that this central commissioning is only for treatment centres in London and hence there may still be variations in accessibility to therapies across the rest of the UK.

"Because HIV drugs are so expensive, and so effective, pharmacists are ideally placed to ensure therapy is used cost-effectively," Ms Leake Date said.

Summary

"The role of an HIV pharmacist is well integrated and respected within the multidisciplinary team," said Ms Davies. She said it is a fast-moving area, with new drugs being released regularly, making it an exciting and challenging specialty to be involved in. However, she said that despite the increasing number of new cases every year, HIV is still a relatively small specialty, with few positions for pharmacists across the UK compared with other areas of clinical pharmacy. "This could potentially limit career progression for pharmacists wishing to remain working in HIV. However, because the role is so diverse, the skills you learn as an HIV pharmacist are transferable to other clinical specialties and operational positions within pharmacy," Ms Davies explained.

Ms Leake Date said that she enjoys the patient contact that she has in this role. She said: "Because the treatment is ongoing, you are able to build good relationships with the patients, some of whom I have known for ten years," she said. "You never get bored because HIV treatment is constantly changing and there is always something new to challenge you — both intellectually and clinically."