Will Mackintosh and Alec Bonington

# Tips for GP trainees working in infectious disease

**W Mackintosh**, GPST3, BM, DRCOG, St Mary's Medical Centre, Oldham; **A Bonington**, BSc, DTMH, MD, FRCP, Consultant in Infectious Diseases and Tropical Medicine, North Manchester General Hospital, Infectious Disease, Crumpsall, Manchester.

**Address for correspondence**

**William Mackintosh**, St Mary's Medical Centre, Rock Street, Oldham, Greater Manchester, OL1 3UL, UK.

**E-mail:** will_mackintosh@yahoo.co.uk

**Submitted:** 23 January 2012; **final acceptance:** 24 February 2012.



**DOI: 10.3399/bjgp12X659484**

## INTRODUCTION

Historically, infectious disease may have been off the radar of junior doctors considering a career in general practice. With the rise in prevalence of HIV infection[1] resurgence of tuberculosis[2] (TB) and increasing numbers of overseas travellers, aspects of infectious diseases are becoming more and more relevant to GPs. The expansion of foundation training and provision of posts within some GP training programmes (including integrated training posts) has also resulted in increased opportunities to gain some valuable experience in the specialty.

This article provides a guide to some of the unique aspects of infectious diseases, to help you prepare for your post, and to highlight the wide range of opportunities to expand skills and knowledge. This will give you a head start in diagnosis and management of infectious disease in the community.

## SURVIVAL GUIDE

1. Remember to ask. Senior doctors in infectious disease are usually friendly and approachable and would rather be asked than leave you to manage things alone.
2. Many inpatients on infectious disease wards will have underlying HIV or TB, though infectious disease units will also routinely manage those with more common infections such as cellulitis and gastroenteritis. Before starting it would be helpful to brush up on the management of common infections as well as the weird and wonderful.
3. Familiarise yourself with the common tests used to monitor patients with HIV, including viral load and CD4 count. There are also well described thresholds of falling CD4, where opportunistic infections such as *Pneumocystis jirovecii* pneumonia (PCP), Kaposi's sarcoma, and cerebral toxoplasmosis can develop.
4. It is useful to develop a working knowledge of the diagnosis and management of TB, including isolation precautions before going on-call. You may be asked to give an opinion on a new diagnosis of TB by doctors in accident and emergency (A&E).
5. It is important to understand and respect the importance of confidentiality for patients with HIV. Concerns about confidentiality may mean that patients will not disclose their diagnosis to their usual GP. As a result they may present to an infectious disease unit ahead of a GP surgery with seemingly minor problems unrelated to their HIV. Don't dismiss them as they may feel unable to access health care any other way. Always check with them first before communicating with their GP or another specialty.
6. A minority of complex inpatients stay on the ward for many months. Investigation, treatment, and recovery can seem to take much longer than on standard medical wards. Take the time to get to know your patients and be aware of the difficulties they face with long periods of isolation and hospitalisation. It can have a massive impact on social, professional, and financial aspects of their lives.
7. Don't worry if you find new and unfamiliar drugs mind-boggling. There are many unfamiliar drugs in the antiretroviral drug category in particular. These drugs come in a variety of combinations and have important side-effects, drug interactions, and contraindications. Check the *BNF* and ask a senior colleague or pharmacist working in the department.
8. Respect isolation precautions. Units are mainly made up of side rooms some of which will be under negative pressure. Follow instructions and ask before entering, especially when seeing patients with newly diagnosed TB.
9. You may be asked to inform your local public health medical officer of a notifiable disease. A list of notifiable conditions can be found on the Health Protection Agency

website and ask a ward clerk or manager for the forms that need to be completed.

10. Make yourself aware of needle stick injury protocols. You may be asked advice on this by other specialties or A&E.
11. You may be asked to perform an Ishihara test for patients starting TB therapy. This is a test of colour vision and involves showing the patient coloured dot diagrams. Find the charts on the ward and ask a colleague how to use them.
12. Improve your phlebotomy skills. Some patients, in particular those who have injected drugs, will be almost impossible to take blood from or cannulate. Take the opportunity to get some supervised experience taking blood from neck veins.
13. Intravenous drug users are at increased risk of a number of infectious diseases and are therefore frequent attenders to infectious disease units. Try and avoid frustration with their apparently chaotic behaviour, focus on improving their health without judgement or prejudice.
14. Have a high level of suspicion for malaria in all returning travellers with fever. It can mimic other infections and appear in travellers from affected regions up to 6 months (occasionally years) after return, even if prophylaxis was taken. Be wary of worsening anaemia (haemolysis in malaria), confusion (cerebral malaria), and low blood sugar in patients admitted to the ward.
15. Fever of unknown origin is a common presenting problem in infectious disease. Keep an open mind about the diagnosis and try and rule out common infections before jumping to a more exotic diagnostic conclusion. Remember, many pyrexias are not due to infection so also consider autoimmune conditions and neoplasm, in particular lymphoma.
16. Make yourself familiar with your department's seasonal flu protocol. Infectious disease units are central to coordinating this and you may be asked to give advice to other specialties.

## OPPORTUNITIES FOR TRAINING AND DEVELOPMENT

17. The most important lesson to take from your post in infectious disease is to remember to test for HIV when you begin work in the community. Gone are the days when the disease was deemed a death sentence for patients. The life expectancy of most patients infected with HIV is now similar to HIV-uninfected patients if diagnosis is made early.[1] Improving access, availability, and reducing the stigma of HIV testing by GPs is vital to improving long-term outcomes as early diagnosis gives the greatest chance of long-term survival.
18. Try and become involved in audit or research. Some centres will have a dedicated research registrar in need of help with ongoing projects. Approach them as early as possible in your post and ask to be involved or discuss ideas with your supervisor.
19. Attend departmental meetings and education sessions. Many units will have a rolling programme of education for trainees. Become involved in this and take the opportunity to present to colleagues.
20. In infectious disease you will be performing and waiting for the results of a myriad tests that you are unfamiliar with. If you are asked to do a test, ask why. Not only will you learn but you will also find it easier to convince a radiologist that a scan is indicated.
21. Attend specialty clinics as much as you can. The vast majority of hepatitis C, HIV, and TB is managed in outpatients. You will gain experience more relevant to your practice as a GP by attending clinics and getting involved.
22. Working on an infectious disease unit provides a great chance to brush up on dermatology. There are often opportunities to examine more unusual skin conditions such as Kaposi's sarcoma, Lyme disease, and cutaneous larva migrans.
23. Infectious disease specialist nurses are a valuable source of knowledge and experience and often provide a link for patients between the hospital unit and the community. Particularly in caring for those with TB or hepatitis C. Ask them questions about their role and take the chance to shadow them if you can.
24. Infectious disease is an exciting and rewarding specialty with many opportunities to enhance your career in general practice. Take the opportunity of a post if it is available.


### Provenance

Freely submitted; not externally peer reviewed.


### Discuss this article

Contribute and read comments about this article on the Discussion Forum: **http://www.rcgp.org.uk/bjgp-discuss**


### REFERENCES

1. Health Protection Agency. *HIV in the United Kingdom: 2011 report.* London: HPA, 2011. http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317131685847 (accessed 16 Oct 2012).
2. Health Protection Agency. *Tuberculosis in the UK: 2011 report.* London: HPA, 2011. http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317131791612 (accessed 16 Oct 2012).