Testing for hepatitis in pharmacies

In this article, Leila Taheri reports on the results of a pilot testing for hepatitis B and C in community pharmacies in England.

Rafique Adam, pharmacy manager at Finstead Pharmacy in London, has been testing patients for hepatitis B and C for the past six months.

His pharmacy is one of 19 that took part in a three-month pilot for hepatitis B and C screening organised by The Hepatitis C Trust. Over the pilot period, he tested 18 customers and identified five patients with hepatitis C and one with hepatitis B.

"Many customers I spoke to were not aware of the seriousness of hepatitis or had any idea of the risk factors. For example, many of our needle exchange patients were unaware that hepatitis C can be transmitted by sharing needles," Mr Adam said.

He added: "Hepatitis is a serious disease and awareness of the condition must be raised. Patients who tested positive were pleased they found out about their condition and that treatment is available."

There are at least 100,000 people in England and Wales with undiagnosed hepatitis C and about 180,000 people with hepatitis B, most of whom are also unaware of their condition. Hepatitis C can be cured if diagnosed and treated in time, and hepatitis B can be managed. But, undiagnosed and untreated, these viruses can go on to cause cirrhosis, liver cancer and death.

Low diagnosis rates of hepatitis B and C present a serious public health challenge. For example, this backdrop that last year The Hepatitis C Trust organised a three-month pilot of free, on-demand hepatitis B and C testing (PJ; 23 May 2009, p605).

The trust piloted the hepatitis B and C dried blood spot tests in pharmacies across five primary care trusts: City & Hackney, the Isle of Wight, Nottinghamshire County, Sandwell, and Tameside & Glossop.

Policy and parliamentary adviser for the trust Jane Allen told The Journal that national awareness campaigns have done little to improve diagnosis rates and so a new approach was needed to help diagnose and treat those infected with the virus. The national move in the NHS towards pharmacies offering more services across five primary care trusts: City & Hackney, the Isle of Wight, Nottinghamshire County, Sandwell, and Tameside & Glossop.

Pharmacists displayed posters and gave leaflets to potential service providers.

In addition, factors that often dissuade people from testing for hepatitis B or C — stigma, confidentiality issues, difficult access and inconvenient opening times — do not apply to pharmacies. Indeed, the positive results from the pilot testify to the benefit pharmacy testing of hepatitis B or C can bring.

Over the three-month pilot period, which ran from May to August 2009, 234 tests were conducted, and 35 people diagnosed with hepatitis C (15 per cent of tests) and four with hepatitis B (2 per cent of tests). That translates to a hepatitis B or C positive patient found in every six tests.

The Hepatitis C Trust points out that these diagnosis rates in pharmacies are far higher than in GP surgeries, where only 4 per cent of tests find positive hepatitis C patients and 2 per cent of tests find hepatitis B cases.

An anonymous evaluation form filled out by 19 users of the service revealed the reasons:

What the pilot found

- Of the 35 hepatitis C positive diagnoses, 25 were men and 10 were women, and 31 were current or former injecting drug users.
- The 35 people tested positive for hepatitis C, which means they have been infected at some point in their lives. Of these, 14 people tested positive for hepatitis C RNA, meaning these people currently have a chronic infection.
- Seventeen people diagnosed had multiple risk factors.
- All four of the positive hepatitis B diagnoses were made in men. Two were born in a country with a high prevalence of hepatitis B and had undertaken medical or dental surgery in that country, one had previously injected and snorted drugs and one had previously injected drugs.
- The demand for tests ranged from between one and 27 tests per pharmacy over the three-month period.

The positive outcomes from the pilot have already encouraged those PCTs taking part to continue with the service. The Isle of Wight has continued offering the service and has extended the dry blood spot tests to include testing for syphilis and HIV (PJ Online, 1 December 2009). City and Hackney PCT has extended the pilot and is still offering the tests. Sandwell has approved funding to continue the project, and Nottinghamshire County is evaluating it internally to see if it can include it in local enhanced service agreements in the future.

How the testing works

The PCTs selected pharmacies that were visited by at-risk groups, typically methadone patients, needle exchange users and people from countries where hepatitis rates are high.

Pharmacists attended a one-day training session devised and delivered by The Hepatitis C Trust and a blood-borne viral hepatitis specialist nurse.

Pharmacists assessed whether a patient required testing by carrying out a pre-test discussion in a private consultation area. Only at-risk patients were eligible to be tested. Each consultation lasts approximately 15 minutes and includes information and advice about hepatitis B and C and the testing process.

Samples were sent to a laboratory and patients returned to the pharmacy after two to three weeks to receive their result and post-test counselling.

If positive, patients were sign-posted to their GP who would refer them to a specialist, and a letter with the test result was also sent to their GP.

However, in the Isle of Wight, because some GPs were not referring patients tested positive to secondary care, patients were referred directly to the island’s sexual health services with a letter sent informing the GP of the results.

If results were negative, patients were given advice on how to reduce the risk of infection in the future.

Various tactics were used to promote the service. Pharmacists displayed posters and gave leaflets to customers about risk factors to filter out the “worried well”.

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Risk factors

- Receiving a blood transfusion, blood products, or organ transplantation before 1991
- Current intravenous drug use, past IV drug use (including steroids, even once and sharing any injecting equipment)
- Current sniffing or smoking cocaine, past sniffing or smoking cocaine (sharing pipes, notes or straws)
- Unprotected sex with a person who is known to have hepatitis B or C or may have been at risk
- Tattoos, piercings, or acupuncture in unregistered premises, with unsterile equipment or with needles that were not new
- Regularly shared razors or toothbrushes with a person who is known to have hepatitis B or C or may have been at risk
- Born in a high risk region (Asia, Africa, South America, Pacific Islands, Eastern Europe, and the Middle East)
- Medical or dental procedures in a high risk region
- Shars injury
- Contact sports, fights and a human bite (ie, contact with another person’s blood)

For the higher success rates in pharmacies. Patients found hepatitis B and C pharmacy testing convenient and would recommend the service to friends who might be at risk. In survey 18 stated they preferred being tested at a pharmacy than at a GP surgery.

Manager of Regent Pharmacy in the Isle of Wight Gary Warner, who took part in the pilot, argues that the key to encouraging patients to use the service is to engage regular users of pharmacies in conversation and build up relationships of trust. However, he admits that many of the groups he was targeting — such as needle exchange users — were reluctant to go through with the test because it meant moving from an anonymous service to one where personal details would have to be given. Mr Warner stressed the “fine balance” between encouraging at-risk groups to participate in services that can improve their health and alienating them from using pharmacy services for primary prevention of disease.

There were no extra staff employed in those pharmacies taking part in the pilot, but Mr Warner said that, since the volume of requests for tests was relatively low, this was not a problem. He pointed out that although his pharmacy does 6,500 prescriptions per month, this does not prevent him from providing more services. In fact, the high volume enables him to employ additional staff to do dispensing, which frees him to take on more clinical roles.

Mr Warner also pointed to the vast disparity in uptake from pharmacies on the island — the majority of tests where done in a few pharmacies, and he put this down to “professional interest”.

This difference was also reflected in the number of tests carried out from pharmacies involved in the pilot, with three pharmacies each performing more than 20 tests each. DR Dalvair Pharmacy in Sandwell conducted 27 tests, Regent Pharmacy in the Isle of Wight conducted 24 tests and Bahia Pharmacy in Nottinghamshire performed 22 tests.

The trust notes the service was most successful where PCTs and pharmacists worked together with local drug services and where pharmacists were proactive in discussing risks with customers and testing without an appointment.

The pharmacists involved in the service attributed their success to proactively engaging at-risk patients in conversation. Help from other services was vital for the success of pharmacies in the Isle of Wight where the island’s drug and needle exchange service helped publicise testing and referred patients they saw to pharmacies. In addition, pharmacies in the Isle of Wight linked testing to offering the hepatitis B vaccine, which the pharmacists involved believed encouraged people to come forward for testing.

The Hepatitis C Trust hopes the results of the pilot will encourage involvement from more PCTs, particularly where there is a high prevalence of people who are at risk of infection (see Panel, below left).

Dev Dalva, from DR Dalvair Pharmacy in Sandwell, agrees. He said: “Offering hepatitis B and C tests in my pharmacy has been a huge benefit to the local community. The people diagnosed will now be able to access potentially life-saving treatment and many customers are more aware about the viruses and risk factors.”

“Diagnosing someone with hepatitis B just a few weeks into the pilot made me realise that viral hepatitis is a serious problem in the local community and offering testing could make a real difference to people’s lives. I hope the pilot project can be rolled out to be a long-term service.”

So far, the pilots have all taken place in England, but the trust is particularly keen to help health boards in Scotland, Wales and Northern Ireland pilot hepatitis B and C testing in community pharmacies.

In its report detailing the pilot results, the trust attributes the low detection of hepatitis B to the fact that the pilot was principally designed to detect hepatitis C and was based mainly in pharmacies offering needle exchange services. It recommends that PCTs conduct a dedicated hepatitis B pilot in areas with large migrant populations from countries with a high prevalence of hepatitis B.

In a world where money issues weigh just as greatly as improving patients’ health, the facts are clear: failing to diagnose people with hepatitis B or C places a huge financial burden on the NHS. Treating patients early is cost effective and is recommended by the National Institute for Health and Clinical Excellence. For example, if left undiagnosed and untreated, hepatitis C requires expensive interventions such as liver transplants.

Charles Gore, chief executive of The Hepatitis C Trust, agrees. His message to PCTs is that engaging more pharmacies in testing will save money: “Diagnosing just one hepatitis C patient through the pharmacy testing scheme could save a PCT tens of thousands of pounds in costly interventions to treat serious liver disease later. If PCTs work with local pharmacies to determine target areas and offer testing in appropriate locations, they could save millions of pounds in the long term.”

Reimbursement costs

- £19.84 for a dried blood spot test kit and hepatitis C antibody and hepatitis B surface antigen test analysis
- £70.77 for a confirmation hepatitis C test and PCR and genotype test (only where a hepatitis C positive result was found)
- £23.57 for a confirmation hepatitis B surface antigen test and anti-HBC+ test (only where a hepatitis B surface antigen positive result was found)

The PCTs involved paid for the cost of the tests and remunerated pharmacists at a negotiated price between £10 and £20, for example, Isle of Wight PCT paid £15 per test and Sandwell paid its pharmacists £10 for every test. Although relatively few hepatitis B patients were diagnosed, The Hepatitis C Trust says that since the additional cost of undertaking a hepatitis B virus test is relatively low (an extra £6.07) and because there are many overlapping risk factors, pharmacies should offer both tests at the same time.