

## Extending tuberculosis screening to include viral hepatitis:

a pilot among newly arrived migrant students in universities Grampian

### Who are you?

*My name is Maria Rossi and I am a medical doctor and Consultant in Public Health Medicine with the Health Protection Team in NHS Grampian. I was the coordinator of the HEPscreen pilot study in collaboration with a Liver Nurse Specialist (Rachel Thomson), a Health Protection Nurse Specialist (Helen Corrigan), a Project Manager (Laura Kluzniak) and our administrative team.*



### Where are you based?

Grampian is a semi-rural region of the north-east of Scotland with a population of just under 570,000 over an area of nearly 9,000km<sup>2</sup>. It has important international population links, most prominently related to the oil industry and two internationally renowned universities, the University of Aberdeen and Robert Gordon's University. Both attract significant numbers of foreign students and skilled workers from Africa and Asia. More recently there has been a large increase in the arrival of migrants of young adult age from Eastern Europe, often finding work in the hospitality industry, food processing and agriculture.

### Which population did you hope to reach? Why was this group targeted?

In Grampian, the primary risk factor for chronic hepatitis B infection (CHB) is birth abroad, most likely from vertical transmission in medium to high prevalence countries. Hepatitis C infection is found in countries where infection control practices can be of uncertain quality. We aimed to determine whether offering screening for hepatitis B and C through universities is an effective approach of identifying and engaging with migrants from Africa and Asia. We also offered HIV screening, consistent with local protocols and the risk profile of many of the countries of origin.

### What did you do?

We worked in partnership with the two universities to extend the current programme of TB screening among all students arriving from countries of high TB prevalence, to include an offer of blood-borne virus (BBV) screening since these infections often overlap in countries of moderate to high hepatitis B and C prevalence. TB screening was publicised at the start of each of the two university terms (autumn and winter), and one university also sent emails to relevant students. The TB screening sessions were held on-site, the Mantoux skin test was used and written information about viral hepatitis and HIV was provided at this point. When students returned 48 hours later for the skin test to be read, anyone with a negative Mantoux test was offered HBV, HCV and HIV screening by blood sampling after a pre-test discussion with the Liver Nurse which included modes of blood-borne viral transmission, window period of tests and confidentiality. Students with a positive Mantoux test would be offered hepatitis screening as part of their TB work-up. The results of BBV screening were provided by post, but students with a positive result of ongoing infection were telephoned by the same nurse, given the diagnosis and offered an appointment for initial consultation with the local specialist Liver Service for future management and treatment.

## Did you provide language support to people offered screening? Either translated materials or interpreters?

As the people offered screening had migrated to Grampian to study at a university where teaching is in English, translators or interpreters were not felt to be necessary.

## What training did you offer to workers involved in raising awareness or offering testing?

The staff involved in discussing screening were already experienced in BBV testing. NHS Grampian also provide Equality and Diversity awareness training to staff, useful when working in culturally diverse populations.

## When did this intervention take place?

A total of seven screening sessions took place in two time periods – the autumn term during September/October 2012 and the winter term during February 2013.

## What was the uptake? How many people benefited from the intervention?

Ultimately, 455 students were screened for TB, 156 of these consented to screening for hepatitis B and C, and 152 for HIV, giving an uptake rate for hepatitis screening of 34.3% of those targeted through the TB programme. Of all the people screened for viral hepatitis, 76% (n=118) were born in Sub-Saharan Africa. The largest group were from Nigeria (61%). Ghana ranked second with 8%, then Uganda at 5%. The remaining 26% of students were born in 22 countries: seven in India, five in China and less than five in each of Canada, Egypt, Germany, Indonesia, Kazakhstan, Kenya, Kuwait, Peru, Russia, South Africa, Sudan, Taiwan, Tanzania, Uzbekistan, Brazil, Lithuania, Malaysia, Thailand, Bulgaria and Pakistan. Four cases of chronic hepatitis B and no cases of chronic hepatitis C or HIV were identified. All 4 cases of chronic hepatitis B were referred.

## What are the key lessons learnt? If another service were to replicate your model, what advice would you give? What would you do differently if you were to repeat the intervention? What would you repeat?

Offering screening for viral hepatitis (and HIV) alongside TB screening seems to be an effective and feasible way of identifying and engaging with newly arrived migrant university students. The need for good logistic arrangements should not be underestimated. New diagnoses were made and the involvement of the liver specialist service from the outset facilitated the referral into secondary care. The short duration of stay in Grampian (usually for one year of post-graduate study) does raise issues about the potential health impact from the health provider perspective. Nevertheless, arrival into a new area for the purpose of study is a teachable moment in health promotion terms and a good opportunity to offer BBV screening in individuals from moderate to high prevalence countries.

