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HEPscreen
SCREENING FOR HEPATITIS B AND C
AMONG MIGRANTS IN THE EUROPEAN UNION

# MIGRANT SCREENING FOR VIRAL HEPATITIS B and C:
## TWO FEASIBLE STRATEGIES IN UNIVERSITIES AND WORKPLACES IN GRAMPIAN, SCOTLAND

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## Introduction

**Key causes of liver cancer and cirrhosis** worldwide are chronic viral hepatitis B and C infections. Early case-finding is challenging for these conditions which are usually asymptomatic.

The **EU-funded HEP-SCREEN Project** explores community outreach models for viral hepatitis screening among migrant populations through university and workplace settings. No publications had been identified of viral hepatitis screening models in such settings prior to this.

The **Grampian area in North East Scotland**
- population of 570,000 residents
- area of relative affluence
- semi-rural geography supports a vibrant agricultural industry, alongside tourism and food processing
- oil capital of Europe with a strong University tradition of excellent standing.

Over past decades educational and employment **opportunities have led to waves of migration**
- from the Indian Sub-continent and China
- more recently from Africa and Eastern Europe
- the length of sojourn is variable.

**Viral hepatitis B and C infections** are more prevalent in most countries compared to Scotland. **Diagnosis in migrants can be challenging due to**:
- lack of perception of being at risk
- time pressures
- language barriers
- fear of the diagnosis itself
- stigma
- lack of understanding of the local healthcare system

The **main modes of transmission** are
- vertical in endemic countries
- through inadequate infection control
- through illicit injecting drug use (in Scotland)

Early diagnosis is important from a preventative population perspective and for the individual, since effective treatments are now available.

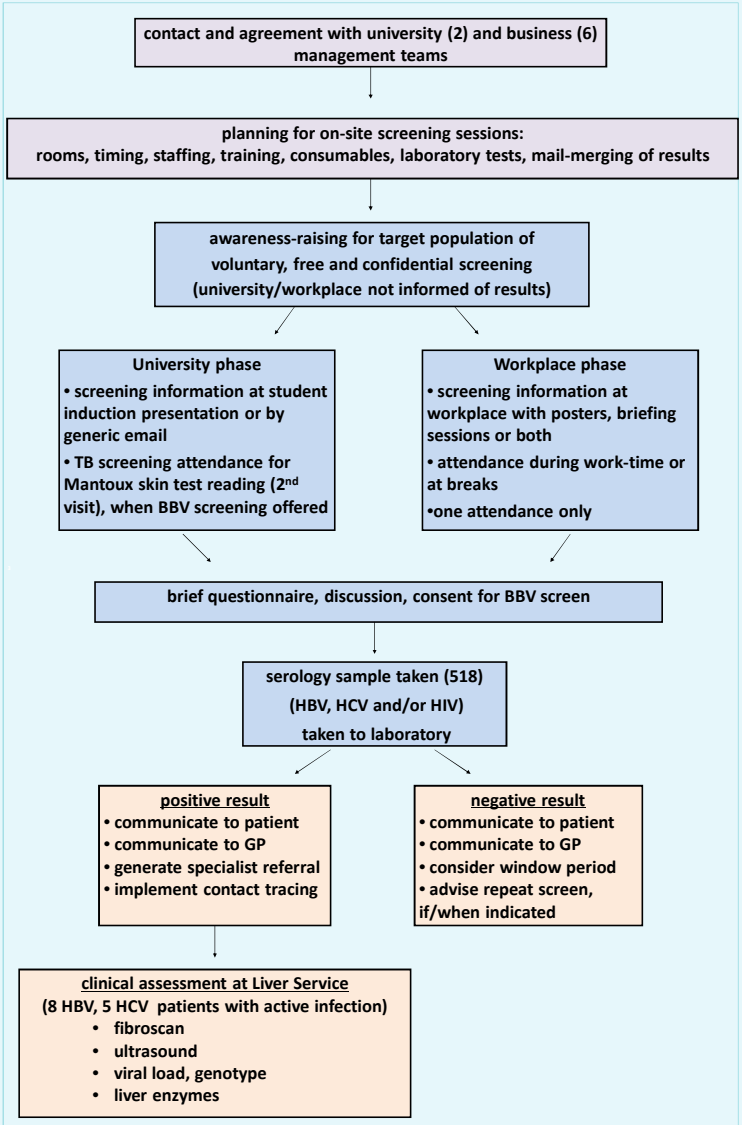
## Settings & Participants

- outreach into migrants' communities
- on-site convenience
- consideration of time pressures
- with agreement of premises management.

Universities:
- 156 foreign-born legal new entrant students
- undertaking tuberculosis screening at the University of Aberdeen & Robert Gordon University
- 65% male, mean age 28 years, 76% Sub-Saharan Africans; 61% from Nigeria, 8% from Ghana and 5% from Ghana
- all English-speaking
- 97% arrived in UK within past 2 years
- 74% not tested for hepatitis B/C previously.

Workplaces:
- 305 foreign-born legal migrant workers
- at 6 food processing businesses
- 36% male, mean age 37 years, 97% Eastern European; 50% Poland, 27% Lithuania, 17% Latvia
- minority English-speaking
- 29% arrived in UK within past 2 years
- 91% not tested for hepatitis B/C previously.

## Methods – screening in universities and workplaces




## Results

| | universities | workplaces |
|---|---|---|
| number of sites | 2 | 8 |
| number of sessions | 7 | 10 |
| staffing | nurse, phlebotomist | nurse(s), phlebotomist(s), interpreter(s) |
| hours of screening | 30 | 68 |
| appointment system | drop-in at breaks | drop-in at breaks, appointments, mixed |
| denominator | 455 migrants | 935 migrants; 530 UK-born; 1465 total |
| screenees | 156 migrants | 305 migrants; 57 UK-born; 362 total |
| % migrants | 100% | 64% |
| country of birth | majority Sub-Saharan African | majority Eastern European |
| cases identified | 4 HBV | 4 HBV + 5 HCV |
| screenee prevalence rate | 2.5% HBV in migrants | 1.3% HBV in migrants; 1.6% HCV in migrants |

## Discussion

- This two-site pilot demonstrated that screening migrants for viral hepatitis at university and workplace settings is feasible, whether as an extension of an established TB screening programme or de novo.
- 518 individuals were screened (461 migrants, 57 UK-born); majority migrant groups were Sub-Saharan African or Eastern European; 8 HBV and 5 HCV cases were identified, all but 2 of which were new diagnoses.
- uptake rates among migrants offered screening varied from 23% to 47%. Variables included time given for staff briefings by project team, appointment system or drop-in, screening during work or break time.
- clear, well-informed and brief pre-test discussion led to very high rates of consent for screening (HBV 100%, HCV 100%, HIV 97%). The addition of HIV to hepatitis screening was well-accepted; no HIV cases were diagnosed.
- each of the 3 options for interpreter translation (live, telephone or informal (co-worker, relative)) were used at workplaces; not needed for screening at university sessions.
- due to space and time limitations it was not possible to provide HBV vaccination.
- communication of positive (by telephone) and negative (by post) results to screenees/GPs worked well; email and re-posting to changed addresses served as back-up.
- all positive individuals were seen at the specialist liver service within 2 months of screening, most (69%) within 6 weeks.
- no stigma issues apparent or reported.

## Conclusions

Screening on-site at university or in the workplace is a **feasible model for case-finding viral hepatitis infection** among migrants.

Key points for success include:
- **understanding** the international mix of the **target population** in community settings ;
- **facilitatory relationship** with management;
- **logistical preparedness** for on-site screening, including staffing flexibility;
- **clear consent procedures** in multiple languages;
- **quick turn around** of screening results;
- **effective referral pathway** for positive cases ;
- **general flexibility** in approach when working with non-health partners.

**Further investigation is required regarding variation in screening uptake amongst migrant students and workers across different sites.**

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