

regeneration represents a safe regenerative process amenable to therapeutic manipulation in the chronically ill liver.

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### **Point-of-care diagnostic tests for HBV and HCV are associated with a higher linkage to care in an Asian migrant population**

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**Introduction:** Linkage to care for patients diagnosed with chronic hepatitis B (HBV) and C virus (HCV) infection remains a pressing issue - especially in high-seroprevalence populations.

**Aim:** This study compares the impact of point-of-care tests on the linkage to care, cost and turnaround time in a prospective comparison of two screening protocols in the Chinese population in three major cities in Belgium.

**Methods:** Two screening protocols were compared between 10/2014 and 5/2017. The first is a community outreach (CO) protocol in which serum was obtained through venipuncture and tested for HBsAg and anti-HCV (Elecsys, Roche Diagnostics). Screened persons were notified of results by letter and phone. The second protocol was a community partnership (CP) method, in which point-of-care tests (Biomérieux Vikia HBsAg and OraSure OraQuick HCV) were used to obtain HBsAg and anti-HCV results respectively through fingerstick blood and saliva. Positive results were confirmed during outpatient visits with serologic testing (Elecsys, Roche Diagnostics). Linkage to care was defined as having received specialist care follow-up before/on 10/2017 with HBsAg, ALT and HBV DNA test results for HBV and HCV RNA for HCV, and at least 1 abdominal ultrasound.

**Results:** Overall, 563 persons participated, four failed/declined venipuncture: for 559 individuals, valid results were obtained (456 in the CO protocol and 103 in the CP protocol). Thirty-seven (6.6%) tested positive for HBsAg. One person tested positive for anti-HCV (0.2%). Eleven of the 32 HBsAg positives diagnosed in the CO protocol (34%) are in specialist care follow-up, compared to 5 of the 6 positive patients (4/5 HBsAg and 1/1 anti-HCV) in the CP protocol (83%) (Mid-P exact  $p=0.041$ ). Two patients from the CO protocol are treated with antiviral therapy and one from the CP protocol is due to be treated. The cost of the CO protocol was €24,819 or €54.0 per person screened. The cost of the CP protocol was €2,750 or €26.7 per person screened, thus the CP protocol was more economically attractive. The turnaround time from venipuncture until postage of results ranged between 20 and 45 days in the CO protocol. For the CP protocol, the turnaround time was 15-20 minutes – results and an appointment for specialist care follow-up were given on-site.

**Conclusions:** In a population with a high HBV prevalence we found that screening based on point-of-care tests results in lower costs per person screened, and higher linkage to care.

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### **Liver transplantation in Jehovah's witnesses**

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**Introduction:** Liver transplantation (LT) is a major surgical procedure with large dissections and sutures of large vessels in patients with high portal hypertension and low levels of platelets and coagulation factors. In consequence, LT often requires large amounts of blood products. For religious reasons, most Jehovah's witnesses (JW) refuse infusions of any blood product, including autologous or homologous pre-donated blood, platelets, fresh frozen plasma, coagulation factor concentrates, or human albumin. However, they may accept solid organ transplantation, including LT.

**Aim:** The authors developed experience in abdominal and oncological surgery in JW and present here their results with LT in JW patients.

**Methods:** Over a 20-year period, 22 LT (16 DBD, 2DCD, and 4 LRLT with JW living donors) were performed in 21 JW patients and were analyzed retrospectively. All patients received perioperative iron supplementation and erythropoietin. Two patients had percutaneous spleen embolization to increase platelet level. Anti-fibrinolytic (aprotinin or tranexamic acid) was administered during LT and meticulous surgical hemostasis was achieved, helped by argon beam coagulation. Continuous circuit cell salvage and reinfusion whereby scavenged blood was maintained in continuity with the patient's circulation, was used in all patients. Venovenous bypass was avoided during LT to minimize the coagulation disorders.

**Results:** There were 10 male and 11 female patients whose mean age was 48 years (ranges: 6-70). Indications for LT were HCV with (3) or without (1) HCC, PBC (2), PSC (1), HBV (2), autoimmune hepatitis (1), antitrypsin deficiency (1), sarcoidosis (2), amyloidosis (3), polycystic liver disease (1), alcoholic cirrhosis with HCC (1), cryptogenic (3), hepatic artery thrombosis (1). At transplant, mean pre-operative hematocrit was 41% (ranges: 22-50), mean platelet level was  $140 \times 10^3/\text{mm}^3$  (ranges: 33-355), and mean INR was 1.25 (ranges: 0.84-2.18). One LRLT recipient died at day 11 from aspergillosis and anemia, and another DBD recipient at day 28 due to complications after hepatic artery thrombosis. One patient finally accepted to be transfused for severe anemia. The mean hospital stay was 31 days (10-137). Kaplan-Meier patient survival was 85%, 72%, 72% at 5, 10 and 15 years, respectively

**Conclusions:** According to the authors' experience, LT may be successful in selected and prepared JW patients who should not be a priori excluded from this life saving procedure. The indications for LT in JW were quite different from the common indications for LT, with a low rate of alcoholic cirrhosis. The experience with this particular group of patients helped the team to reduce transfusion needs in the non-JW patients.

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### **Alveolar echinococcosis is now endemic in southern Belgium**

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**Introduction:** Until now, Belgium has been considered as a low-risk country for alveolar echinococcosis (AE). However it was recently demonstrated by necropsy series that up to 51% of the red foxes (*Vulpes vulpes*) may be infected by *E. multilocaris* in some parts of Southern Belgium. The first local Belgian human AE cases were described in the early 2000's.

**Aim:** The aim of this study was to report the experience of a tertiary university hospital of Southern Belgium with AE management.

**Methods:** The authors retrospectively collected data from the parasitology laboratory (serologies), the hospital pharmacy in charge of supplying albendazole, and by searching through patient's files with medico-economic information service of a tertiary university hospital. The medical files were retrospectively reviewed.

**Results:** Twenty-one cases (66% male) of local AE have been recorded from 1999 to 2016. All patients were Belgian citizens with more than 30 years of life in Southern Belgium (Liege province: 10 cases (47.4%), Luxembourg province: 8 cases (36.8%), Namur Province: 3 cases (15.8 %)). Mean age of diagnosis was 66 years (ranges: (35-85y). Eighteen patients had hepatic involvement: 14 underwent surgical resection and 5 had unresectable liver lesions and underwent albendazole palliative therapy until death. During the same period, the faculty of veterinary medicine observed an increased rate of lethal hepatic AE in dogs, another indication of high AE incidence.

**Conclusions:** AE appears to be spreading in Belgium and has actually an uneven geographical distribution with endemicity in areas of Southern and Eastern Belgium. However, it is probable that local AE cases will be diagnosed in the whole country, considering that there is no reason that infected foxes remain in Southern Belgium and also the fact that some people from Northern Belgium might spend long period in Southern Belgium, with or without their dogs. The liver is the most frequently involved organ and the only cure can be achieved by complete R0 resection of all AE lesions. In reaction to this experience, the authors created a multidisciplinary group for AE diagnosis and management, including hepatologists, infectiologists, microbiologists, pathologists, radiologists, nuclear medicine specialists, surgeons and veterinarians. The authorities should be aware of this medical issue and should facilitate the access to Albendazole for AE patients. A complete national survey should be encouraged, and BASL might have an important role in this study.

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### **Descriptive epidemiologic data on liver cancer in Belgium, 2004-2025**

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**Introduction:** Liver cancer, characterized by a poor prognosis, is the sixth most common cancer worldwide with the highest incidence rates in Eastern Asia. It is the second most common cause of death due to cancer. Alcohol abuse and chronic viral hepatitis result in a long-term risk of liver cancer.

**Aim:** The study aims to present an epidemiological description of liver cancer incidence, trends, survival and prevalence in Belgium.

**Methods:** The Belgian Cancer Registry is a national and population based cancer registry, collecting data on patient and tumour characteristics since 2004. The registration is compulsory for the oncological care programs and for the laboratories for pathological anatomy. Vital status was retrieved from the Crossroads Bank of Social Security. The age-standardised incidence and mortality rates (WSR, n/100,000), relative survival, and