Re-evaluation of chronic hepatitis B patients lost to follow-up: results from the Northern Holland Retrieval Project

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Background and Aims
Chronic infection with hepatitis B virus (HBV) can lead to liver cirrhosis, decompensated liver disease and hepatocellular carcinoma (HCC). Once infected with HBV, the annual rates of viral clearance are low and patients remain at risk for developing HBV-related complications. However, many patients diagnosed with chronic HBV in the past have been lost to follow-up in primary care and/or hospital care. These patients may have an indication for strict follow-up or antiviral treatment. The aim of the Northern Holland Retrieval project is to retrieve chronic HBV patients in the Alkmaar region, The Netherlands, and bring them back into care.

Methods
- Retrieval of chronic HBV patients in a low-endemic area in Northern Holland
- Explore datafiles of the local Public Health Service and the local microbiology laboratory to identify registered cases of chronic HBV in our region from 2000-2015
- Compare identified cases with patients currently known in our hospital or cured
- Consider patients lost to follow-up if no follow-up appointment was scheduled with any hepatitis specialist
- Invite patients lost to follow-up for evaluation at our hospital via their primary health care physician
- Evaluation included physical examination, blood examination including liver enzymes and -function, complete serology, viral load and genotype determination, and liver elastography

Results
552 cases of chronic hepatitis B were identified in our region (figure 1). 356/552 (64.5%) patients had no follow-up in primary or hospital care. Only 120/356 (33.7%) were eligible for retrieval and after consultation of their primary health care physician, 113/356 (31.7%) were invited for evaluation. The remaining 7 patients were unfit because of comorbidity. The remaining 236/356 (66.3%) patients were not eligible for retrieval because of various reasons. In 97/236 (41.1%) patients their primary health care physician was unknown, 34/236 (14.4%) were imprisoned, 38/236 (16.1%) were asylum seekers with unknown legal status and 67/236 (28.4%) resided in another region.

In total, 50 of the 113 (44.2%) responded to our invitation and were evaluated at our hospital (table 1). Evaluation resulted in a change of management in 22/50 (44%) of patients (table 2). 14/50 (28%) had an additional indication for HCC-screening, 5/50 (10%) had an indication for strict follow-up and 3/50 (6%) an indication to start antiviral therapy. The remaining 25/50 (50%) were advised to have a 6-12 monthly check of ALAT levels and in 3/50 (6%) patients viral load was undetectable because of occult HBV infection (2 of 3 patients) or seroconversion (1 of 3 patients).

Conclusion
Many patients once diagnosed with hepatitis B are now lost to follow-up. If these patients are re-evaluated according to current guidelines, this results in a change of management in 44% of them in addition to the 6-12 monthly check of ALAT levels advised in the updated 2016 Viral Hepatitis guideline for primary health care physicians.