

[ EDITORIAL ]

## What Can Be Done to Address the Exhaustive Referral of Patients with Viral Hepatitis to Specialists?

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Owing to the emergence of direct acting antiviral (DAA) agents for the treatment of hepatitis C virus (HCV) infection and the development of nucleic acid analogs for treating hepatitis B virus (HBV) infection, patients with chronic viral hepatitis now have a good chance of achieving HCV eradication and a stable HBV suppression (1). Consequently, consistent and close cooperation between medical providers, affiliations, and institutions is directly associated with favorable outcomes for such patients (2). In medical institutions employing chronic viral hepatitis specialists who can provide antiviral therapies, including gastroenterologists, hepatologists, and internists, the internal referral of viral hepatitis patients to these specialists by all physicians and medical workers is important. In Japan, hepatitis virus screening is generally performed before surgery or invasive tests at medical institutions. However, not all patients with positive virus hepatitis test results are referred to appropriate specialists by the individual physicians in charge, and these patients subsequently fail to receive detailed examinations and appropriate treatment (3).

We read with interest the current paper by Hidaka et al. (4) who conducted a questionnaire-based survey of 1,281 healthcare professionals working at medical institutions in Japan. All the involved institutions use automatically generated electronic medical records equipped with a virus hepatitis infection alert system. With this system, if a patient exhibits positive results for hepatitis B surface antigen and/or HCV antibody in any examination performed by the physicians in charge, alerts are automatically generated in their electronic medical records to encourage referral to a specialist. The referral rates of patients with positive detection of hepatitis B surface antigen and HCV antibody were 85.4% and 84.7%, respectively, according to the questionnaire responses. Hidaka et al. conducted 30-minute lectures about HBV management, current antiviral treatments for HCV, and

other relevant information, such as how to react to the alert system and the practical process of intrahospital referral. After these lectures, the expected referral rate increased to 93% for both HBV and HCV according to the study participants' questionnaire answers. The study found that insufficient awareness about recent relevant information was an inhibiting factor for intrahospital referral.

Internal referral of HBV/HCV-positive patients is effective for identifying patients who should undergo further testing and treatment. By using an alert system, internal referrals can direct all detected patients with chronic viral hepatitis toward appropriate care and treatment. To minimize the risk of lawsuits, all medical workers must recognize positive viral hepatitis test results, explain them to the affected patients, and refer these patients to a specialist. In addition to negative motivators, such as the risk of lawsuits, non-specialists and medical workers can be positively motivated to refer viral hepatitis patients to specialists by receiving correct and updated information on viral hepatitis. Therefore, continuous education for all medical workers is important, as was clearly demonstrated by Hidaka et al. In Japan, the Ministry of Health, Labor and Welfare aimed to strengthen the regional hepatitis care networks through the Hepatitis Information Center, and individual local governments and regional core medical centers organized education programs, including a viral hepatitis lecture for medical workers to certify participants as a "Hepatitis Medical Care Coordinator (HMCC)" (5). Through the end of March 2019, 16,546 HMCCs had been certified in Japan (6). HMCCs can be expected to play a key role in the team approach to medical care, share updated knowledge about viral hepatitis, and encourage further learning by medical workers, all of which should result in more specialist referrals for viral hepatitis patients.

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