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A Comparison of Screening, Prevention, and Management for Hepatitis B Patients between the US and Chinese Healthcare Systems

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SI PHR Abstract
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A Comparison of Screening, Prevention, and Management for Hepatitis B Patients between the US and Chinese Healthcare Systems

Introduction: Hepatitis B (HBV) is a complex disease entity with potentially serious outcomes, including developing hepatocellular carcinoma (HCC). HBV is estimated to be responsible for about 50-80% of HCC cases worldwide, and 75-95% of HCC cases in HBV endemic regions.¹ HBV and HCC are great concerns especially in East Asian countries like China. In China, HCC ranks as the 2nd most common cancer and 2nd in cancer mortality, both behind only lung cancer.¹ China is considered an endemic HBV region, with about 100-150 million people infected. In comparison, only an estimated 550,000-2 million people are chronically infected in the US.² With such high volumes of HBV and HCC cases in China, there are lots to be learned from how the Chinese healthcare system addresses this public health issue.

Objective: The purpose of this study was to elucidate if there were any efficiencies or best practices the US healthcare system can adopt from how the Chinese healthcare system screens for and manages HBV.

Methods: This qualitative study was done through primary research, including methods such as interviews, clinical shadowing, and photo-journaling. Key informant interviews (KIIs) were

¹ Zhu, Ran Xu et al. "Epidemiology of Hepatocellular Carcinoma in the Asia-Pacific Region." *Gut and Liver* 10.3 (2016): 332–339. *PMC*.

² Wang, Yong-chuan et al. "Comparison of Cancer Incidence between China and the USA." *Cancer Biology & Medicine* 9.2 (2012): 128–132. *PMC*.

conducted with Jefferson hepatologists (N=2), to set a baseline understanding of how HBV patients are managed in the US. Similar KIIs were conducted with Chinese hepatologists (N=2), infectious disease physicians (N=1), and liver surgeons (N=2) at West China Hospital in Chengdu, China. Notes from 2 weeks of clinical shadowing were also included to provide additional understanding. Finally, a qualitative, cross-country comparison was done to uncover similarities and differences between the two countries with regards to how HBV patients are managed.

Results: Pharmacologic treatment of HBV patients in China is very similar to that of the US. Antiviral therapies, such as entecavir and tenofovir, continue to be first-line treatments in both countries. Clinical management of HBV patients in China is also very similar to the US. In both countries, HBV patients are followed-up every 3-6 months, with routine labs (i.e. CBC, LFTs, viral load) and imaging (i.e. abdominal US) required. However, the most stark contrast between the two countries is the physician-patient relationship. Due to differences in patient volume and general population size, the Chinese healthcare system is much more focused on *quantity* of patients served rather than *quality* of services provided.

Conclusion: The biggest difference in management of chronic HBV between US and China is *how* patients are treated. It's typical for Chinese hepatologists to see 60-80 HBV cases per day (~5-7 minutes / patient), whereas US hepatologists see 5-15 cases per day. From clinical shadowing, it's apparent that US hepatologists take much more time on patient education, whereas the Chinese hepatologists do not focus on this due to time constraints. Whether or not the closer doctor-patient relationship in the US translates to better disease outcomes is still an

open question that warrants further studies. Because HBV is a bigger issue on a much larger scale in China, physicians, health officials, and the government have been trying to address this issue on a public health scale through national efforts to improve vaccination rates and HBV screenings.