Introduction

The treatment of chronic hepatitis C has been revolutionized by the development of Directly Acting Antiviral (DAA) agents. The first two of these agents, telaprevir and boceprevir, are available in the West and have resulted in significantly improved Sustained Virologic Response (SVR) rates in previously difficult to treat genotype 1 patients (with pegylated interferon) [1-4]. The first generation protease inhibitors, telaprevir and boceprevir, have well established efficacy in HCV genotype 1 patients [1-4]. These medicines have limited efficacy against genotypes other than genotype 1 [5]. The genotype-specific efficacy of these medicines can account, in part, for the lack of their use in some of the countries in the region. In Pakistan, the prevalent genotype is genotype 3 [6]. Sri Lanka also has genotype 3 predominance [7]. Genotype 6 is the predominant in South East Asia [8]. For example, in Myanmar genotype 6 is the predominant genotype [9].

The pivotal clinical trials for these medicines have been conducted in the United States and Western Europe. There is no published data on the use of these agents in South and South East Asia. The objective of this study is to assess DAA usage among hepatologists in South and South East Asia.
Results

67 hepatologists were included in this study. 70% (47) were male and 30% (20) were female. The average age of participants was 48. 67% (45) were in academic practice. The doctors had been in practice for a time period ranging from one to 33 years. The doctors were from the following countries: Pakistan 24 (36%), Sri Lanka 2 (3%), Myanmar 25 (37%), Philippines 8 (12%), Laos 5 (7%), and Cambodia 3 (4%). All treated hepatitis C infected patients. Eleven doctors said DAAs are available in their country (3 from Philippines, 4 from Burma, and 7 from Pakistan) and four doctors from Pakistan had previously prescribed DAAs. When asked about obstacles to DAA use in their countries, the following reasons were cited: high cost, lack of availability, and lack of relevance of these DAAs to the genotypes prevalent in their countries (Table 1).

Table 1: Obstacles to DAA use.

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost</td>
<td>36 (54%)</td>
</tr>
<tr>
<td>Lack of availability</td>
<td>36 (54%)</td>
</tr>
<tr>
<td>Lack of relevance of these DAAs to prevalent genotypes in our country</td>
<td>8 (12%)</td>
</tr>
</tbody>
</table>

Discussion

The results of this study show very limited use of DAAs among hepatologists in South and Southeast Asia. Of the six countries represented here, half reported no access to these new medications. Apart from lack of availability, issues of cost and applicability were cited as obstacles to DAA use in the region. Newer medications, such as the polymerase inhibitor sofosbuvir with pangenotypic activity, will not have the same genotype restrictions seen with telaprevir and boceprevir. However, as our study shows, other barriers including availability and cost, may continue to impede the use of these oral antiviral agents in this region. DAAs are not in use in half of the countries studied in the region. These medicines are still relatively new and it is possible that given more time, they may reach these countries. The results of this study are limited in that all countries in the region are not represented due to their lack of participation at the conference where this study was conducted. This is the first study to look at DAA use in South and South East Asia. Based on this sample of hepatologists representing six countries from the region, there appears to be limited DAA use in South and South East Asia. Issues relating to cost, availability, and efficacy in prevalent genotypes limited DAA use in this region. In the rapidly changing landscape of hepatitis C therapy, these issues need to be addressed both for the existing DAAs as well as for the array of newer agents in development.

References