The Impact of Health Insurance on Economic Burden for Hepatitis B Inpatients in China

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Dear Editor-in-Chief

China’s ongoing health care reform, up to date social health insurance include urban employee basic medical insurance (UEBMI), urban resident basic medical insurance (URBMI) and the New Rural Cooperative Medical Scheme (NRCMS) (1). Health insurance can share economic risks, and enable populations to access health care services (2). HBV-related disease impose financial burden to society (3-5). It was therefore of great interest whether health insurance affect the financial burden for those with Hepatitis B.

Between August and December 2012, we conducted the survey of patients with HBV-related diseases in 3 county hospitals from 3 model regions in Jiangsu Province, China. Overall, 230 inpatients were observed, the expenditures of hospitalization were extracted directly from the hospital financial database. Among the inpatients 168 (73%) were males, and 62 (27%) were females. Average hospitalization expense of UEBMI patients was the highest (US$ 3344.43), with median of US$ 2805.23. Hospitalization expense ranged from one-fourth (for UEBMI and URBMI) close to one-second (for NRCMS) of the average annual household income. Hospitalization expenses have exceeded annual personal income for patients with URBMI and NRCMS. Medication accounted for the major part of hospitalization expense (up to 63.73%), the ratio of medication for patients with UEBMI, URBMI and NRCMS was 65.36%, 64.92%, 60.75% respectively. Average hospital stays of UEBMI patients were nearly 40 days, higher than patients with URBMI and NRCMS, there was statistically significant ($P<0.05$). Reimbursement ratio of UEBMI was the highest (75%), and reimbursement ratio of NRCMS was the lowest, there was significant difference ($P<0.05$).

Table 1: HBV-related disease burden among three type of health insurance

<table>
<thead>
<tr>
<th>Type of Health Insurance</th>
<th>Hospitalization Expense ($)</th>
<th>Hospital Stays</th>
<th>Ratio of Annual Household Income (%)</th>
<th>Ratio of Annual Personal Income (%)</th>
<th>Reimbursement Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBMI</td>
<td>2324.40</td>
<td>34.43</td>
<td>24.90</td>
<td>132.40</td>
<td>72.45</td>
</tr>
<tr>
<td>UEBMI</td>
<td>3344.43</td>
<td>39.35</td>
<td>25.25</td>
<td>86.08</td>
<td>75.25</td>
</tr>
<tr>
<td>NRCMS</td>
<td>2500.60</td>
<td>26.61</td>
<td>42.51</td>
<td>145.59</td>
<td>56.41</td>
</tr>
</tbody>
</table>
The study showed hepatitis B impose considerable financial burden on society and family (4). Health insurance reduced financial burden of patients, but reimbursement ratio was statistically significant among the three type of health insurance. Six medications are now approved for the treatment of chronic hepatitis B (5), only lamivudine is included in Chinese national drug list. To reduce the cost of medication and include them into drug list of health insurance scheme can reduce the burden of patients. To construct a unified health insurance system and balance reimbursement policy can realize the fair of hepatitis B patients.

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References