INFORMAL CONSULTATION ON ACCESS TO HEPATITIS MEDICINES IN UPPER-MIDDLE-AND HIGH INCOME COUNTRIES

21–22 August 2017
Manila, Philippines
Informal Consultation on Access to Hepatitis Medicines in Upper-Middle-and High Income Countries
21–22 August 2017
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MEETING REPORT

INFORMAL CONSULTATION ON ACCESS TO HEPATITIS MEDICINES IN UPPER-MIDDLE- AND HIGH-INCOME COUNTRIES

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NOTE

The views expressed in this report are those of the participants of the Informal Consultation on Access to Hepatitis Medicines in Upper-Middle- and High-Income Countries and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for Member States in the Region and for those who participated in the Informal Consultation on Access to Hepatitis Medicines in Upper-Middle- and High-Income Countries in Manila, Philippines from 21 to 22 August 2017.
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Keywords:

| Hepatitis / Drugs, Essential / Health Services Accessibility |
SUMMARY

The WHO Western Pacific Region has had much success in prevention of hepatitis, in particular hepatitis B through immunization. However, there is a substantial burden of people chronically infected with hepatitis B and C who have little access to treatment. In particular, new hepatitis C direct-acting antivirals (DAAs) remain expensive and are a barrier to access to treatment for all who need it.

The Informal Consultation on Access to Hepatitis Medicines in Upper-Middle- and High-Income Countries was held at the WHO Regional Office for the Western Pacific in Manila, Philippines from 21 to 22 August 2017. Presentations and discussions on regional and global approaches to dealing with intellectual property rights, financing, drug pricing, health technology assessment, and research and development of treatments for hepatitis were part of the agenda.

Participants agreed on ways forward, including consideration of joint negotiation for medicines in the Region, greater sharing of pricing information and negotiation strategies, monitoring of real world efficacy of new direct-acting antivirals, capacity-building, and platforms for information sharing.
1. INTRODUCTION

1.1 Meeting organization

The Informal Consultation on Access to Hepatitis Medicines in Upper-Middle- and High-Income Countries was held at the WHO Regional Office for the Western Pacific in Manila, Philippines from 21 to 22 August 2017. The meeting was organized to allow upper-middle- and high-income countries to share their experiences in increasing access to new treatments for hepatitis. Presentations and discussions on regional and global approaches to dealing with intellectual property rights, financing, drug pricing, health technology assessment, and research and development of treatments for hepatitis, were undertaken with a candid and frank exchange of ideas. The list of the participants is available in Annex 1, and the meeting agenda is outlined in Annex 2.

1.2 Meeting objectives

The objectives of the meeting were:

1) to review approaches and barriers for improving access to hepatitis medicines in selected upper-middle- and high-income countries;
2) to draw lessons from pricing and access strategies undertaken by those countries; and
3) to discuss next steps for improving access to hepatitis medicines.

2. PROCEEDINGS

2.1 Opening session

Dr Shin Young-soo, WHO Regional Director for the Western Pacific, delivered the opening remarks. Dr Shin welcomed the participants and noted the regional success in the prevention of hepatitis, in particular hepatitis B. He acknowledged, however, that the treatment of hepatitis remains expensive and stated that 1200 people die each day of hepatitis in the Western Pacific Region. He encouraged participants to develop ways for the Region to meet the Regional Action Plan for Viral Hepatitis in the Western Pacific 2016–2020 to reduce the morbidity and mortality due to hepatitis through increased access to effective antiviral therapy.

After the introductory address, Dr Jun-Ho Jang from the Republic of Korea and Ms Lisa Williams from New Zealand were elected as co-chairs for the meeting.

2.2 Session 1: Setting the scene

Dr Ying-Ru Lo and Dr Socorro Escalante provided an overview of the current situation regarding access to treatment for hepatitis in the Western Pacific Region. They noted that the disease burden and deaths due to chronic hepatitis remains high in the Region – and is among the highest in the world. Although prevention and treatment reduces deaths from cirrhosis and cancer, they acknowledged that access to hepatitis treatment in the Western Pacific Region remains limited. Drs Lo and Escalante noted that while prices of direct-acting antivirals (DAA) for hepatitis C have been decreasing worldwide over time, the steepest decrease in price has occurred where there is generic competition, such as in Egypt and Pakistan.
Mr Andrew Rintoul outlined the global situation regarding expensive medicines and policy options for affordability and pricing. He explained that the pharmaceutical industry’s goals may not always align with the desire to implement universal health coverage (UHC) and that the industry usually uses its power to be the price setter. This has resulted in the need to elevate the issue of what is a “fair price” to the global level. He acknowledged that countries need to balance industry and health policies, although engaging with the industry to build trust and certainty regarding revenue and profits is also important.

Dr Po-Lin Chan presented an overview of the current drugs to treat hepatitis. She discussed the current WHO guidelines for hepatitis and the evolving therapeutic landscape with respect to treatments, particularly for hepatitis C. Dr Chan outlined the genetic diversity as regards the genotypes affecting patients in the Western Pacific Region, and noted that the next update of the WHO guidelines would include new pan-genotypic DAA drugs, which simplify and possibly shorten the duration of treatment. Dr Chan stated that, despite these advances, multiple barriers to access still remain.

After a poster walk, during which participants were able to provide more details on the approaches to access to new hepatitis medicines in their country, there was a discussion about the barriers to increasing access to treatment. Participants identified out-of-pocket expenses through co-payments, even with better prices, as posing a significant barrier to access. In some countries, this could be as high as USS 2000 per year. Another barrier was the requirements for drug registration, with some countries needing local clinical trials for registration. It was reported that most countries have an expedited or priority review process for registration of some medicines. However, it was also acknowledged that registration agencies are generally reactive, waiting for pharmaceutical companies to apply for registration, and this can limit the options for treatment in the market. Access to screening for different genotypes was also identified as a potential barrier, particularly where countries do not have access to pan-genotypic treatment options. With regard to expanding access, while a number of participants expressed a desire to allow access to treatments in primary care, concerns regarding training and support for primary care physicians meant that most patients will need to access treatments through specialist clinics, at least initially until primary health treatment services are adequately prepared.

Dr Moon-Seok Choi described the current status and unmet needs for management of hepatitis in the Republic of Korea. He noted that while the number of hepatitis B patients remains steady, there is a pool of approximately 1 million people in the country who are undiagnosed, due largely to low awareness of the disease and its significance. Similar low awareness was also reported for hepatitis C infection with less than 35% of hepatitis C virus (HCV) carriers aware of their infection status. Dr Choi noted that there was insufficient epidemiological data about the prevalence of hepatitis C in the Republic of Korea, as well as limited access to screening and treatments, particularly for low-income patients and low awareness of hepatitis in the general public and primary care physicians and non-specialists.

2.3 Session 2: Current approaches to improve access to medicines – Part 1

2.3.1 Patents and the Trade-Related Aspects of Intellectual Property Rights (TRIPS)

Ms Chee Yoke Ling outlined some of the opportunities under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) to increase access to medicines in middle- and high-income countries. Ms Chee discussed the evolution of TRIPS and the complexity of patents for
pharmaceuticals. She noted that so-called Markush claims, which enable a patent claim over a broad range of chemical compounds, can prevent the development and research of millions of molecules, and that countries should consider limiting these through legislation. Ms Chee also discussed the use of compulsory licences under TRIPS, where governments grant a licence to a third party to use the patent without the consent of the patent holder. She stressed that these are not limited to use in emergencies, nor limited to certain diseases and indicated that anti-competitive practices were grounds for issuing compulsory licences.

During the discussion, it was argued that threats to use compulsory licences by a country can be enough to cause the patent holder to reduce the price of their product. However, failing to follow through with threats leads to reduced bargaining power. It was also noted that some countries have started to take action against “secondary patents” (e.g. patents on salts, polymers, dosages, combinations) that have the effect of extending the market exclusivity given to a drug.

2.3.2 The role of health technology assessment (HTA)

Professor Kun Zhao reviewed the economic analysis of hepatitis medicines in China. Professor Zhao discussed the cost-effectiveness analysis for the treatment of hepatitis B and C, and noted that DAAs, based on their current price, are less costly but more effective than current interferon-based treatments in China. However, the current issue in China is how much of the cost should be paid out of pocket by the patient. Economic analyses should include budgetary impact as well as evaluate the returns on investment.

Dr Jun-Ho Jang described the role of economic evaluation in the Republic of Korea and the experience with HCV treatments. Dr Jang discussed the evolution of economic evaluation in the Republic of Korea, which started in 2006 in response to rapidly increasing drug costs. He noted that the use of economic evaluation resulted in a significant reduction in price for the new hepatitis C treatments compared to the previous pricing formula. However, risk-sharing arrangements using a price/volume agreement were also important, particularly given the much greater initial financial impact of the availability of sofosbuvir and sofosbuvir/ledipasvir due to “warehousing”, where patients delayed starting treatment in anticipation of the availability of the new DAAs.

Mr David Nott and Mr Andrew Mitchell, via teleconference, provided an overview of the process for subsidization and procurement of medicines in Australia. They explained the role of the Pharmaceutical Benefits Advisory Committee (PBAC) in considering comparative safety, effectiveness and cost-effectiveness when providing advice to the Minister for Health on whether a drug should be subsidized under the Pharmaceutical Benefits Scheme. Mr Mitchell noted that the listing of the hepatitis C medication in the Pharmaceutical Benefits Scheme was done with minimal restrictions to try and maximize access through primary care. This has resulted in over 40 000 patients being treated in the first few months after subsidization started.

During the discussions, it was noted that in countries that use health technology assessment to assist decision-making, this was done alongside considerations of affordability. There was also discussion about the use of confidential or hidden pricing in negotiations. Some participants argued against confidential pricing, expressing concern that it did not necessarily lead to obtaining the best price. It was acknowledged that while health technology assessment is a useful tool, ability to pay or affordability plays a dominant role in determining acceptable prices in situations where both effectiveness and cost were high, such as faced with the new DAAs.
2.3.3 Prices and price regulation

Dr David Newby presented a number of options that are used to set or control prices of pharmaceuticals and their potential for use with the new hepatitis medicines. He discussed the role of reference pricing, both internal and external. With regard to internal reference pricing, possibilities for the new DAAs are limited given the lack of competition. However, he acknowledged that the emerging number of pan-genotypic treatment options may provide market competition. Dr Newby noted the difficulty with external or international referencing pricing given the use of hidden or confidential pricing of the new hepatitis treatments. He further acknowledged the limitations of value-based pricing, which does not overtly incorporate affordability. He then highlighted the use of risk-sharing arrangements, such as caps and discounts above certain volumes of use, as a way of providing greater financial certainty for payers. However, these arrangements require significant funding to monitor and implement.

During the discussions, the differences in price controls across the Region were highlighted – ranging from free-pricing to single-payer controlled pricing arrangements. From the discussion, it was evident that countries with a single-payer system had achieved significant price controls for the new antivirals by using their monopsony purchasing power.

2.3.4 Procurement and negotiation strategies

Ms Lisa Williams presented the processes by which New Zealand has procured and reimbursed the new DAAs. Ms Williams outlined the role and function of the Pharmaceutical Management Agency (PHARMAC), the body responsible for health technology assessment and funding decisions in New Zealand. She discussed the process by which the DAAs have been funded so far, which has involved requests for information (RFIs) for hepatitis treatments, followed by direct negotiations with Gilead for Harvoni® and with AbbVie for Viekira Pak®. Ms Williams outlined the differences in the funding arrangements for Viekira Pak® and Harvoni®: the former have no restrictions and costs of distribution and dispensing are borne by AbbVie. In contrast, Harvoni® is restricted to patients with severe disease and approval must be received from a treatment panel for each patient prior to supply of treatment.

The subsequent discussions highlighted the need for good estimates of demand as an important part of the procurement process. The projected use was needed to establish the budget impact and therefore affordability of treatments. For some countries, this involved epidemiological estimates of disease burden, but for others projected use was based on system capacity to deliver the treatments.

2.4 Session 3: Current approaches to improve access to hepatitis medicines – Part 2

2.4.1 Financing hepatitis medicines

Professor Soonman Kwon provided an overview of health-care financing and benefits coverage decisions. Professor Kwon outlined the essentials of health-care financing, which are resource generation, resource pooling and purchasing. He emphasized the interrelationship between the extent of population coverage, the range of services covered and the extent of cost sharing (out-of-pocket expenses) when trying to achieve universal health coverage. Professor Kwon discussed approaches to service coverage, which included focusing on specific services, targeting priority disease and targeting population groups such as the elderly and vulnerable. He noted the importance of making decisions in a transparent way and involving a range of stakeholders, including providers, payers and consumers. Professor Kwon described the experience in the Republic of Korea of incorporating
consumer opinions using a citizen participation committee, noting the need for sufficient time for deliberation, and the observation that it works better for value judgements rather than individual service decisions.

Dr Frank Chan and Dr Benjamin Kwon presented on the experience in Hong Kong SAR (China). They gave an overview of the health-care system, which involves a mix of public and private providers. They noted that both the public and private sectors provided medical treatment of hepatitis B and C. Procurement is done via both contracts and direct purchase. They also described the evaluation process for new drugs for formulary decisions, which involves assessment by the Drug Monitoring Committee of the quality, safety, effectiveness, cost-effectiveness and benefit–risk ratio.

The discussion identified that some countries that have achieved increased access to the new DAAs did so either by increasing the budget allocation or by making significant savings in other areas of spending on medicine to accommodate the new drugs. However, budget increases were not specifically made for the new hepatitis medicines.

2.4.2 Reimbursement decisions

Dr Eunyeong Bak provided an overview of the process for pharmaceutical reimbursement decisions in the Republic of Korea. Dr Bak described the changes in the Republic of Korea from a negative list system to a positive list system, and with coverage decisions being made by the Health Insurance Review and Assessment Service, and price negotiations made by the National Health Insurance Service. He discussed the role of the Pharmaceutical Benefits Committee and its subcommittees, and the use of risk-sharing arrangements for anti-cancer and orphan medicines.

Associate Professor Atura Igarashi discussed the reimbursement and pricing system in Japan. Dr Igarashi described Japan’s health-care system, which includes a mix of insurance premiums and taxes for funding, and includes a patient co-payment of 10–30%. He noted that a special co-payment reduction is used for hepatitis medicines. Dr Igarashi outlined the pricing approach for sofosbuvir, which included an innovation premium of 100%. He also highlighted the potential financial impact of the decision to reimburse sofosbuvir, having an annual cost potentially nearly 10 times more than other recent high cost drugs such as evolocumab, a monoclonal antibody designed for the treatment of hyperlipidaemia. This has resulted in the implementation of price recalculation based on volumes of sales, which has led to a 31% price reduction. He noted the introduction of a process of health technology assessment for existing drugs, which will include sofosbuvir.

Mr David Nott, Mr Andrew Mitchell and Ms Adriana Platona described the process to reach a reimbursement decision for the new DAAs in Australia. They outlined how Australia’s approach was to try to maximize the number of patients to be treated, and therefore a desire to have the new treatments available through primary care. This required a number of approaches to the pricing, including requiring a lower acceptable incremental cost-effectiveness ratio of approximately $A 15 000 per quality-adjusted life year (QALY), and a risk-sharing arrangement based on the projected number of patients, which was exceeded significantly in the first year of subsidization.

The discussions noted that in countries that have made the new treatments widely available, use of treatment services had exceeded expectation mainly because of patient “warehousing” – that is, people living with hepatitis delaying treatment while awaiting reimbursement decisions of the country. One lesson learnt is that establishment of a national registry of patients would help monitor real-world efficacy of treatment and monitor for development of resistance to DAAs. It was acknowledged that in countries where pharmaceutical manufacturers have a monopoly over specific medicines, the
challenge is in negotiating price reduction. In this situation, there is a greater need for countries to share information and experiences.

The session concluded with “speed networking”; a series of one-on-one meetings between participants.

2.5 Session 4: Innovative strategies and options to improve access

Mr Jean-Michel Piedagnel outlined the innovative approach to research and development of medicines introduced by the Drugs for Neglected Diseases Initiative (DNDi). He noted that the DNDi, working with a number of international partners, including the Malaysian Ministry of Health, has developed new treatments or reformulated existing drugs for neglected diseases. Through partnerships with Malaysia and Thailand, DNDi is testing a new treatment for hepatitis C with a potential cost of less than US$ 300. The DNDi is also working on simplifying the diagnosis and monitoring of hepatitis C including removing the need for genotyping and serum monitoring at 12 weeks, resulting in a reduction of over 50% in diagnostic costs.

Ms Uhjin Kim described the Asia Pacific Network on Access to Medicines and the Price Information Exchange for Medicines (PIEMEDS). Ms Kim noted that the Asia Pacific region network, now in its fourth year, was established to share information on medicines and health technology policies, and to conduct comparative policy reviews and analysis to identify best practices. An important tool developed to support the regular exchange of information is PIEMEDS, whose function Ms Kim described as an online portal that allows collection and sharing of procurement and reimbursement prices from across the WHO Western Pacific and South-East Asia regions. She outlined the various reports available to Member States to allow comparisons with other countries, and the monitoring of trends over time.

Dr Analía Porrás discussed the Pan American Health Organization’s (PAHO) Strategic Fund and its role in improving access to high-cost medicines. She noted that the Strategic Fund has: improved demand planning, procurement and distribution; assured the quality of products; and through the Capital Account ensured continuous supply and avoided product shortages by guaranteeing payment to suppliers. Dr Porrás noted the approach of the Strategic Fund for drugs of high cost from a single source. This included the principle of ensuring price transparency and confronting monopolistic pricing with monopsonistic purchasing.

Ms Nina Zimmermann outlined the price sharing mechanisms in Europe including the Pharmaceutical Pricing and Reimbursement Information (PPRI) network. Ms Zimmermann discussed the pricing of medicines in Europe, including the role of tendering and the use of external reference pricing. She identified the three main sources of prices – country-specific databases, commercial websites and the PPRI network – and noted the increasing number of cross-border collaborations in Europe including horizon scanning, information sharing and price negotiations. Ms Zimmermann explained that the purpose of the PPRI was to bring together competent authorities responsible for procurement and reimbursement and promote the exchange of information and experience about pharmaceutical policies. With respect to hepatitis C medicines, the PPRI has had seven network queries relating to the reimbursement of sofosbuvir, and the reimbursement, consumption and sales of the hepatitis C medicines.

Ms Valérie Paris provided an overview of innovative options to pay for new medicines. Ms Paris described the Organisation for Economic Co-operation and Development (OECD) Project on Sustainable Access to Innovative Therapies and the current trend in pharmaceutical markets. She
noted that pharmaceutical spending in OECD countries is skewed towards high-cost speciality medicines, and payers find it increasingly difficult to provide access to breakthrough medicines because of high and unaffordable budget impact. She discussed a number of policy options to improve the negotiating power of purchasers, and options to improve access and affordability. However, these were not currently published and were a work in progress.

2.6 Session 5: The way forward

In the final session, participants were asked to provide feedback on five questions:

1) What ideas will you take away and promote in your country?
2) What, if any, areas would benefit from joint action at the regional level?
3) What, if any, further support is needed and who can provide it?
4) What, if any, lessons from high- and upper-middle-income countries related to hepatitis C would be useful to low- and middle-income countries?
5) Learning from hepatitis C, what could be done better for the next high-cost medicine?

The key take-away messages included possible joint negotiations, the use of risk-sharing arrangements, and the potential utility of having a registry to track performance of the treatments and potential resistance.

Joint action areas included greater price sharing, horizon scanning and joint approval systems for novel drugs.

Further support was identified as needed for capacity-building in areas such as negotiation skills and better information sharing.

Lessons for low- and middle-income countries included facilitating competition by having a number of treatment options registered, having a single-payer system, and considering the “whole chain” of managing hepatitis, from diagnosis through procurement and rational use of the medicines.

Lessons learnt for the next high-cost medicine included the importance of stimulating market competition and having a step-wise strategic approach to get the best price. Additionally, there is need to consider both cost-effectiveness and budget impact in negotiating prices.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

High prices of medicines remain the major barrier in upper-middle- and high-income countries providing greater access to new HCV medicines. This is compounded by the difficulty in access to generic versions of the new DAAs. Generic medicines have been shown to increase market competition and reduce prices. Consequently, other mechanisms to reduce prices are needed. While health technology assessment is seen as a useful tool, affordability is the main influence in negotiating prices for new HCV medicines. In addition, the use of monopsony purchasing power by single-payer systems can also help in leveraging price reductions. The emerging range of pan-genotypic treatment options and the development of alternative treatments by not-for-profit organizations may provide additional options and increase market competition, which may help to reduce prices of drugs. Greater sharing of information on prices and negotiation strategies across the Region is seen as important to
improve access to high-cost medicines. However, this is hindered by the increasing use of “hidden” or confidential pricing arrangements.

3.2 Recommendations

There were no formal recommendations from the informal consultation.

3.2.1 Recommendations for Member States

Participants identified the following as ways forward:

1) There may be a role for joint negotiations in the Region.
2) There should be greater sharing of pricing information and negotiation strategies among countries.
3) Monitoring of real-world efficacy of new HCV treatments through patient registries should be established to assess impact of treatment.
4) There is the need to consider the entire chain of medicines supply when negotiating prices, from drug registration to use of medicines, including screening/diagnosis of HCV, genotyping, staging of the liver disease, treatment regimens and their outcomes; and procurement.
5) There should be capacity-building for negotiation skills including exploring alternative options that can promote competition with generic medicines.

3.2.2 Recommendations for WHO

WHO is requested to do the following:

1) Explore interest for possible use of joint negotiations.
2) Provide the platforms to continue sharing of information on prices of medicines and related areas.
3) Support strengthening of strategic information on patient monitoring so as to monitor treatment outcomes.
4) Support countries in strengthening capacity for negotiations, including exploring alternative options that can promote competition with generic medicines.
ANNEXES

Annex 1. List of participants, temporary advisers, observers and Secretariat

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<table>
<thead>
<tr>
<th>Time</th>
<th>DAY 1 (Monday), 21 August 2017, Room 210</th>
<th>Facilitator</th>
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<tbody>
<tr>
<td>08:00-08:30</td>
<td>Registration</td>
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<tr>
<td>08:30-09:00</td>
<td>Opening session</td>
<td>Dr Shin Young-Soo, Regional Director, WPRO</td>
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<td>Welcome remarks</td>
<td>Ying-Ru Lo, WPRO</td>
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<td>Objectives of the meeting and introduction of participants</td>
<td>Po-Lin Chan, WPRO</td>
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<td>Administrative announcements</td>
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<td>Group photo</td>
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<td>09:00-09:15</td>
<td>Coffee break</td>
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<td>09:15-10:15</td>
<td><strong>Session 1: Setting the scene</strong></td>
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<tr>
<td></td>
<td>1.1 Overview of the global and regional situation on access to treatment for hepatitis B and C (20 mins)</td>
<td>Ying-Ru Lo and Socorro Escalante, WPRO</td>
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<td>1.2 The global situation on expensive medicines and policy options for affordability and pricing (15 mins)</td>
<td>Andrew Rintoul, WHO/HQ</td>
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<td>1.3 Overview of hepatitis treatment (15 mins)</td>
<td>Po-Lin Chan, WPRO</td>
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<td>Q &amp; A (10 mins)</td>
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<td>10:15-11:00</td>
<td>1.4 Poster walk</td>
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<td>11:00-12:00</td>
<td>1.5 Roundtable discussions: What are the current barriers to treatment currently in countries?</td>
<td>Moderator: Moon-Seok Choi, Republic of Korea</td>
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<td>12:00-13:30</td>
<td>Lunch</td>
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<td>13:30-14:05</td>
<td><strong>Session 2: Current approaches to improve access to medicines – Part 1</strong></td>
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<td>2.1 Use of TRIPS flexibilities, related legislation and access to medicines: Current trends and developments in middle- and high-income countries (15 mins)</td>
<td>Yoke-Ling Chee, Third World Network</td>
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<td></td>
<td>Moderated discussion (20 mins)</td>
<td>Moderator: Po-Lin Chan, WPRO</td>
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### DAY 2 (Tuesday), 22 August 2017, Room 210

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Facilitator</th>
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<tr>
<td>08:00-08:30</td>
<td>Secretariat meeting (Room 212)</td>
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| 08:30-09:30  | **Session 3: Current approaches to improve access to hepatitis medicines – Part 2**<br>3.1 Financing hepatitis medicines<br>Health care financing and benefits coverage decisions (15 mins)<br>Hong Kong SAR: Healthcare and provision of hepatitis treatment (15 mins)<br>Moderated discussion (30 mins) | Soonman Kwon, Asian Development Bank  
Frank Chan Ling-fung and Benjamin Kwong Yiu Sum, Hong Kong SAR  
Moderator: Soonman Kwon, Asian Development Bank |
| 09:30-09:45  | **Coffee break**                                                     |                                                                             |

### 14:05-15:10
2.2 Role of health technology assessment and related economic assessments:<br>China: The economic case for hepatitis treatment: (15 mins)<br>Republic of Korea: Role of economic evaluation in Korean pharmaceutical reimbursement review - lessons learned from 10 years - experience and cases of anti-HCV drug: (15 mins)<br>Australia (15 mins) [by teleconference]<br>Moderated discussion (20 mins)

Zhao Kun, China  
Junho Jang, Republic of Korea  
David Nott, Andrew Mitchell, Australia  
Moderator: Vivian Lin, WPRO

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<tr>
<th>Time</th>
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<tr>
<td>15:10-15:25</td>
<td><strong>Coffee break</strong></td>
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<tr>
<td>Time</td>
<td>Session 4: Innovative strategies and options to improve access</td>
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<td>13:00-14:15</td>
<td>An alternative R&amp;D strategy for a pan-genotype affordable HCV treatment (15 mins)</td>
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<td>Q &amp; A (10 mins)</td>
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<td>The access to medicines network in Asia Pacific and Price Information Exchange for Medicines (PIEMEDS) (15 mins)</td>
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<td>Q &amp; A (10 mins)</td>
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<td>Experience of the PAHO Strategic Fund: Pooled procurement of essential medicines and strategic health supplies (15 mins)</td>
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<td>Q &amp; A (10 mins)</td>
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<td>14:15-14:45</td>
<td>Opportunity for one-on-one meetings-2 &quot;Speed networking&quot;</td>
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<td>14:45-15:00</td>
<td><strong>Coffee break</strong></td>
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<td>15:00-15:50</td>
<td>Price-sharing mechanisms in Europe (15 mins) [by teleconference]</td>
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<td>Q &amp; A (10 mins)</td>
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<td>Innovative options to pay for new medicines, ensuring access and sustainability (15 mins) [by teleconference]</td>
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<td>Q &amp; A (10 mins)</td>
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<td>Time</td>
<td>Session</td>
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<td>15:50-16:50</td>
<td>Session 5: The way forward</td>
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<td>16:50-17:00</td>
<td>Concluding remarks</td>
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