Meeting Report

Technical Meeting on Raising Awareness, Surveillance, Prevention and Management of Viral Hepatitis In Kiribati

26 August 2015
South Tarawa, Kiribati
TECHNICAL MEETING ON RAISING AWARENESS, SURVEILLANCE, PREVENTION AND MANAGEMENT OF VIRAL HEPATITIS IN KIRIBATI

Convened by:

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC

South Tarawa, Kiribati
26 August 2015
NOTE

The views expressed in this report are those of the participants of the Technical Meeting on Raising Awareness, Surveillance, Prevention and Management of Viral Hepatitis in Kiribati, 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 on the Technical Meeting on Raising Awareness, Surveillance, Prevention and Management of Viral Hepatitis in Kiribati, in South Tarawa, Kiribati on 26 August 2015.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ALT</td>
<td>alanine transaminase</td>
</tr>
<tr>
<td>APRI</td>
<td>aspartate aminotransferase-to-platelet ratio index</td>
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<tr>
<td>CHB</td>
<td>chronic hepatitis B</td>
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<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<td>GHP</td>
<td>Global viral Hepatitis Programme</td>
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<tr>
<td>Global Fund</td>
<td>Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<tr>
<td>HBeAg</td>
<td>hepatitis B e antigen</td>
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<tr>
<td>HBsAg</td>
<td>hepatitis B surface antigen</td>
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<tr>
<td>HBV</td>
<td>hepatitis B virus</td>
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<tr>
<td>HBV DNA</td>
<td>hepatitis B DNA viral load</td>
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<tr>
<td>HCC</td>
<td>hepatocellular carcinoma</td>
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<tr>
<td>HCV</td>
<td>hepatitis C virus</td>
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<tr>
<td>KFHA</td>
<td>Kiribati Family Health Association</td>
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<td>MHMS</td>
<td>Ministry of Health and Medical Services</td>
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<tr>
<td>MTC</td>
<td>Marine Training Centre</td>
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<tr>
<td>NMTC</td>
<td>National Medicines and Therapeutics Committee</td>
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<tr>
<td>SMC</td>
<td>Senior Management Committee</td>
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<tr>
<td>STI</td>
<td>sexually transmitted infection</td>
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<tr>
<td>VCCT</td>
<td>voluntary confidential counselling and testing</td>
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<td>WHO</td>
<td>World Health Organization</td>
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SUMMARY

The Kiribati Ministry of Health and Medical Services (MHMS), the World Health Organization (WHO) Representative Office in Kiribati, and the WHO Regional Office for the Western Pacific convened a one-day technical meeting on viral hepatitis in Kiribati. The meeting was held at the Tungaru Central Hospital, South Tarawa, on 26 August 2015. The aim of the meeting was to discuss the burden of viral hepatitis and related liver disease, and strategies to achieve access to hepatitis B treatment in Kiribati.

The prevalence of chronic hepatitis B (CHB) in Kiribati is very high, but data is limited. Studies done one to two decades ago, and more recent laboratory data, suggest the prevalence is as high as 15-20% in adults. Data on other types of hepatitis is extremely limited. Childhood hepatitis B immunization has been part of the schedule in Kiribati since 1989. Coverage has improved over time, but hepatitis B surface antigen (HBsAg) prevalence in 5-year-olds remains above the Regional target, at 3.3%.

There is currently very limited staging done for people with CHB in Kiribati, and no routine follow up. There is no antiviral treatment available, and management is symptomatic only.

The key recommendations from the meeting were that a national action plan for viral hepatitis in Kiribati should be established, that hepatitis data systems including surveillance should be improved and that approval for the addition of recommended medicines for HBV treatment, including tenofovir, to the national Essential Medicines List should be sought as a first step towards introducing hepatitis B treatment.
1. INTRODUCTION

There is a high burden of hepatitis B infection and liver-related disease in Kiribati. Limited data suggests low hepatitis C prevalence, while the prevalence of hepatitis A, D and E viruses is unknown.

The World Health Organization (WHO) Western Pacific Regional Office has developed draft Regional Action Plan for Viral Hepatitis (RAPVH), which will be considered for endorsement by Member States at the Regional Committee meeting in October 2015. To support Kiribati to progress action on viral hepatitis, including access to treatment, a meeting of key stakeholders was held at Tungaru General Hospital, South Tarawa, on 26 August 2015. The list of participants is available at Annex 1 and the meeting agenda is available at Annex 2.

1.1 Aim and objectives

Aim: To discuss the burden of viral hepatitis and related liver disease, and strategies to achieve access to hepatitis B treatment in Kiribati.

The meeting objectives were:

1. To update national stakeholders on global and regional hepatitis action plans and recent developments
2. To review available viral hepatitis and liver cancer data and needs in Kiribati
3. To plan steps for access to hepatitis B treatment in Kiribati

1.2 Organization

The meeting was attended by 20 participants, comprising six staff from the Ministry of Health, seven clinical staff from Tungaru Central Hospital, the tertiary referral hospital for Kiribati, two staff from the WHO Country Office, two staff from the WHO Western Pacific Regional Office, and three medical students.

1.3 Opening remarks

Dr Andre Reiffer, WHO Country Liaison Officer for Kiribati opened the meeting. He welcomed participants and discussed the progress that has been made in Kiribati in childhood immunization for hepatitis B. Despite this success, there is a great burden of disease in adults, and no treatment is currently available in Kiribati. Dr Reiffer noted the significant progress globally and regionally in hepatitis.

2. PROCEEDINGS

2.1 Session one: Introduction

2.1.1 Update on the Global and Regional Hepatitis Programme (GHP)

Dr Nick Walsh, focal point for viral hepatitis at WHO Western Pacific Regional Office, presented an update on the current situation of viral hepatitis in the Region. More than one third of global deaths due to hepatitis occur in the Western Pacific Region, despite having only a quarter of the world's population (1). Liver cancer due to hepatitis B and C is the main cause of hepatitis-related deaths. The Western Pacific Region was the first to establish a hepatitis B control goal of less than 1% hepatitis B prevalence in children 5 years of age by 2017. Twelve countries in the Region have already met this goal, while 30 countries have met the 2012 milestone of less than 2% prevalence among 5 year olds. Birth dose coverage is crucial to prevent mother-to-child transmission of hepatitis B and coverage is
improving, with some exceptions. Although immunization has protected millions of children from hepatitis B, it has no impact on the burden of disease in adults who were infected prior to its introduction. Consequently, effective hepatitis B treatment is the primary mechanism to reduce deaths from hepatitis B in adults.

Hepatitis is a global health priority. The 2014 World Health Assembly resolution 67.6 urges member States “to develop and implement coordinated multi-sectoral national strategies for preventing, diagnosing and treating viral hepatitis, based on the local epidemiological context”. The RAPVH will be considered by the Regional Committee Meeting in October 2015 in Guam. The Regional Office for the Western Pacific has undertaken consultations, and assisted with country-specific investment cases and development of national hepatitis action plans. There have been a number of challenges. Funding for hepatitis does not yet match disease burden, there are no national coordinating bodies for viral hepatitis in many countries, there is limited and poor data, and the costs of drugs and diagnostics is high, especially for hepatitis C.

Dr Walsh presented the five priority areas of action for the RAPVH. He emphasized the need to begin treating those most at risk of cancer and cirrhosis soon, to reduce mortality from hepatitis. Both regional and global action aim to take a public health approach to prevent liver cirrhosis and cancer through prevention and treatment of hepatitis, building on the success of hepatitis B vaccination and using lessons learnt from HIV. Implementation will be challenging. Costed and funded national action plans with a focal person or mechanism for national coordination will facilitate comprehensive action to address hepatitis morbidity and mortality.

2.1.2 Discussion

Participants discussed whether Kiribati should wait for the RAPVH to be approved at the Regional Committee meeting before developing a national hepatitis action plan. A number of other countries in the region have already developed national action plans or are in the process of doing so, and Kiribati could begin to develop its own national action plan based on the RAPVH template.

2.2 Session two: Hepatitis epidemiology, prevention and treatment

2.2.1 Hepatitis B immunization in Kiribati

Mr Beia Tabwaia, the Expanded Programme on Immunization (EPI) manager at MHMS, presented an update on hepatitis B immunization. On the basis of studies conducted in previous decades, hepatitis B is considered highly endemic in Kiribati. It is thought that prevalence may be as high as 15-30% among adults. Antenatal screening suggests around 10% prevalence in this group. Hepatitis B immunization was introduced into the routine immunization schedule in Kiribati in 1989. In 2014, a serosurvey involving children attending selected primary schools found HBsAg prevalence of 3.3% - not yet meeting the Regional target. The current schedule is four doses: at birth, six, 10 and 14 weeks. In 2013, it was reported that B3 coverage was 95%, while timely BD coverage was 84%.

Kiribati faces significant and ongoing challenges in the timely delivery and administration of vaccines. There are interruptions to vaccine transportation to the outer islands when flights are cancelled, and to health clinics when nurses’ motorbikes break down, resulting in vaccine stockouts. There are inadequate outreach health services in the outer islands. There is inadequate cold chain capacity, with only 40 of 105 clinics having a functioning refrigerator.
2.2.2 Hepatitis laboratory support in Kiribati

Gretna Tauma, the Acting Chief of Laboratory Services, presented a summary of current laboratory capacity for hepatitis investigation. HBsAg testing is available and is routinely performed for antenatal patients, seafarers and blood donors. Testing is also offered through voluntary confidential counselling and testing (VCCT) clinics. HCV Ab testing is available, and performed routinely for blood donors. Determine HBsAg (Abbott) rapid test kits and SD Bioline HCV rapid test kits are used. As hepatitis rapid tests are qualitative and easy to use, all laboratory staff can perform these tests. Training is in-house in accordance with standard operating procedures adapted from the rapid test kit instructions.

The laboratory tenders for equipment from three suppliers, EBOS, South Austral and Medical Pacifica. Hepatitis test records are kept at the Blood Bank which has used an electronic database since 2014. Blood donor data is still being entered into this system, with ongoing use of paper records. Data is reported to Health Information Services (HIS) on a quarterly basis.

The laboratory has carried an average of 10,062 HBsAg tests annually over the past 3 years; 9,027 in 2012, 11,088 in 2013 and 10,071 in 2014. There were 876 positive tests (21%) in 2012, 846 (17%) in 2013 and 721 (14%) in 2014. It is not known how many of these results were repeat testing. These figures exclude testing carried by the Kiribati Family Health Association, the Marine Training Centre (MTC) and at other Kiribati hospitals.

Table 1 - HBsAg test origin and results, Tungaru Laboratory 2012-2014.

<table>
<thead>
<tr>
<th>Patient Group</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>MCU</td>
<td>2669</td>
<td>383</td>
<td>306</td>
</tr>
<tr>
<td>Blood donors</td>
<td>1390</td>
<td>154</td>
<td>22</td>
</tr>
<tr>
<td>VCCT</td>
<td>68</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>total</td>
<td>4127</td>
<td>539</td>
<td>337</td>
</tr>
</tbody>
</table>

* Results for individuals presenting with symptoms are included with Medical check-up (MCU)

There are a number of challenges faced in delivering laboratory services for hepatitis testing. These include obtaining suppliers for equipment, timely delivery and embargo of shipments, resource constraints and staff commitment.

2.2.3 Hepatitis B treatment update: WHO guidelines and rationale for treatment

Dr Nick Walsh presented an update on hepatitis B treatment guidance from WHO, issued in March 2015. Around 45% of HCC and 30% of cirrhosis cases worldwide is due to hepatitis B virus (HBV) (2). Chronic hepatitis B results in cirrhosis or HCC in up to 30% of cases. There has been limited HBV testing and low levels of effective treatment coverage in low- and middle-income countries, and until recently a lack of hepatitis B treatment guidelines for such settings. This gap drove the development of the WHO guidelines for hepatitis B. Not everyone with chronic viral hepatitis needs treatment. Through staging, those with advanced disease at highest risk of complications can be
identified and prioritized for treatment. This group will be much smaller than the population living
with chronic viral hepatitis, reducing the financial burden on health system resources.

The hepatitis treatment cascade includes awareness, testing, referral, disease stage assessment,
treatment and monitoring. Twelve systematic reviews and two network meta-analyses were carried
out to provide recommendations at each step along the cascade.

Key recommendations from the hepatitis B guidelines were presented. The use of non-invasive tests
for the assessment of liver disease stage is recommended, with the aspartate aminotransferase-to-
platelet ratio index (APRI) the preferred test for low-income settings where invasive procedures such
as biopsy are likely to be impractical. Treatment is recommended for those with clinical cirrhosis or
an APRI score greater than 2 or for those without cirrhosis aged over 30 with persistently abnormal
alanine transaminase (ALT) levels, and HBV DNA over 20,000IU/ml (if available).

These recommendations are based on findings of systematic reviews of factors influencing
progression to cirrhosis and HCC in persons with CHB. Those with cirrhosis are at high risk of life
threatening complications. Treatment can halve the risk of HCC, and reduce liver disease progression.
For those without cirrhosis, there is consistent evidence of increased HCC and cirrhosis risk with
increasing age and persistently elevated ALT and HBV DNA. Continued monitoring is required in all
those with CHB, regardless of whether treatment is initiated. No recommendation about the use of
antivirals in late pregnancy to prevent mother-to-child transmission of hepatitis was made, as there are
the number of clinical trials investigating this question ongoing.

First-line treatment using a drug with a high barrier to resistance is recommended: tenofovir or
entecavir for adults, and entecavir for children aged 2-11. These medications are affordable, well-
tolerated, conveniently administered in one tablet per day, and effective with a high barrier to
resistance. Treatment monitoring should include annual ALT, aspartate aminotransferase and APRI
score, HBsAg and hepatitis B e antigen (HBeAg), and HBV DNA if available. More frequent
monitoring is required for those with cirrhosis. Renal function should be tested at baseline and then
annually for those on treatment. Treatment should never be discontinued in persons with cirrhosis, but
may be discontinued in persons without cirrhosis in specific circumstances, with long-term follow up
to monitoring for reactivation.

It is recognized that there are a number of challenges to implementation of this guidance, including
infrastructure for service delivery, human resources, laboratory capacity, funding and access to
medications.

2.2.4 Who needs treatment for hepatitis B? A review from the Western Pacific Region

Dr Julia Scott, consultant to the WHO Regional Office for the Western Pacific Hepatitis Programme,
presented the findings of a systematic review of hepatitis treatment burden in the Western Pacific
Region with a focus on hepatitis B and the Pacific region. The systematic review aimed to assess
whether the treatment burden of hepatitis B and C (the number or proportion of people with chronic
hepatitis meeting WHO criteria for treatment) could be calculated from published literature and
unpublished data. A literature search was undertaken and further information obtained from direct
contact with national experts, NGOs and authors of identified studies. There were many gaps in
available data, with no data at all from many Pacific Island Countries and Territories.

Available data shows a high adult prevalence of hepatitis B in many low-income countries of the
Region. Results of two studies in Kiribati were presented. A 1998 study evaluating the impact of the
expanded programme of immunization in Kiribati, Fiji, Tonga and Vanuatu found an HBsAg
prevalence of 3.8% in 156 children aged 12-24 months, 27.4% in 135 children aged 10-13 years and 15.1% in 176 mothers of preschool children (3). A study focusing on HIV and STIs conducted by the MHMS between 2002 and 2003 found an HBsAg prevalence of 22.7% in 386 seafarers and 9.2% in 269 pregnant women in Tarawa (4). Examples of calculations of treatment burden from large clinical cohorts in China and Mongolia were presented, and a preliminary estimate of the treatment burden in Kiribati was discussed. Given a prevalence of 15% and a young population, the number of people requiring treatment for hepatitis in Kiribati could be around 1200-1600.

2.2.5 Discussion

Participants discussed challenges in testing. HBeAg or HBV DNA testing are not available in Kiribati. No hepatitis D testing is available. HIV viral load is not available either with CD4 count being used to monitor those with HIV. The biochemistry analyser is currently not functioning, and there are significant delays in liver function testing. Laboratory capacity was considered a challenge to implementation of a hepatitis B treatment programme.

There was discussion about challenges to vaccine delivery. When refrigerators are not working, it is sometimes possible to hire private appliances while waiting for maintenance or replacements to be shipped. Some nurses’ motorcycles have been replaced by pushbikes which are easier to maintain. Dr Walsh pointed out that the vaccine can be kept outside the cold chain for one month without losing efficacy, and local staff noted that there is a policy in place for this in the outer islands. Dr Asuo, a paediatrician, noted that premature births are prevalent in Kiribati. He said these babies were not usually given the birth dose vaccine, as staff believed it to have limited efficacy in this group. It is given to these babies at four weeks instead. Participants agreed there is a need to clarify best practice among this group, and WHO staff will consult with EPI for further guidance.

The screening and immunization of health-care workers was discussed. A survey of hepatitis B among health-care workers in Kiribati was carried out in 2007, and those who were HBsAg negative were offered the vaccine. Nurses, laboratory and dental staff were well represented, but only a small proportion of doctors took part. It was noted that difficulties with communication could have led to incomplete uptake of hepatitis B vaccination during this initiative. Not all health-care workers are vaccinated for hepatitis B. Those who train in Fiji are vaccinated during their training, but others are not, and participants thought there should be a clear policy around this. The issue of post-exposure prophylaxis was raised. At this stage, WHO recommends vaccination and hepatitis B immune globulin WHO has added tenofovir and entecavir to the Essential Medicines List, and is advocating that Member States add these to their own Essential Medicines Lists. Initial calculations suggest the cost of tenofovir is not out of reach for Kiribati, given the treatment burden. There would be associated costs due to ongoing monitoring and laboratory tests, but this would be offset by a significant reduction in the costs associated with medical care for people with advanced liver disease.

Participants from Kiribati asked whether other countries in the Pacific were developing national action plans and initiating treatment programmes. Dr Walsh noted that the Regional Office for the Western Pacific had been primarily working with countries in Asia, and Kiribati was the first Pacific country involved in this way. Kiribati could lead the Pacific response.

2.3 Session three: Implementation considerations for hepatitis B diagnosis and treatment

The review team, in collaboration with the WHO country liaison office, initiated a discussion on implementing hepatitis action beyond immunization. The following key steps were identified:
1) A national focal point for hepatitis should be established (Dr Alfred Tonganibeia suggested initially on an informal basis).

2) A national action plan should be developed:
   a) This should be based on the Regional Action Plan, and incorporated into the existing National HIV and STI Strategic Plan.
   b) A series of stakeholder meetings should be held, and a small working group of key stakeholders could be convened. Identified stakeholders include infectious disease physicians and other medical and nursing staff, health promotion services, EPI and other MHMS staff, KFHA and Red Cross, the MTC, and church and community groups.
   c) The action plan would be drafted by one of the stakeholders with assistance from WHO.
   d) The action plan would be presented to stakeholders for review and finalized for the Senior Management Committee (SMC).
   e) Once endorsed by the SMC, the plan could be implemented.

3) Effective hepatitis B medications should be introduced.
   a) Medicines
      i) Any new medication would need to be approved by the National Medicines and Therapeutics Committee (NMTC), which includes the Director of Health Services, chief pharmacist, accountant and the relevant medical specialist.
      ii) A proposal to introduce a new medication, including rationale and economic analysis, is submitted to the NMTC for review, by the relevant department.
      iii) The NMTC endorses a new medication and approves the budget for it.
      iv) The pharmacy calculates how much to order.
      v) The proposed order is taken to the SMC for review and final endorsement.
      vi) Medications are currently bought from medical wholesale organizations and distributors rather than directly from manufacturers. The main distributor is Imres Medical Solutions.
   b) Workforce
      i) Prescribers and nurses would need education about the medication.
      ii) Participants suggested it should initially be prescribed only by the Infectious Diseases Consultant at the referral hospital. Once this system was in place and functioning, treatment could be rolled out to other centres in a phased manner.
   c) Guidelines
      i) Hepatitis B treatment guidelines could be incorporated into existing guidelines for hepatitis B within the Kiribati Antibiotic Guidelines 2013, in parallel with the medication approval process.

4) WHO assistance is required with:
   a) Improvements to data collection and management using current systems.
   b) Understanding the severity of HBV-related liver disease in Kiribati (possible student project).
   c) Development of a national action plan.

3. CLOSING AND RECOMMENDATIONS

3.1 Closing remarks

Dr Nick Walsh provided the closing remarks. He thanked participants for their attendance and input, and said WHO looked forward to working with Kiribati towards a national action plan for hepatitis.
3.2 Recommendations

In addition to those detailed above, the following key recommendations were made during the meeting.

**Broad-based advocacy and awareness**

1. There is a need to raise awareness about hepatitis among health professionals and the community.
2. Support of church groups and community leaders is needed in comprehensive action on hepatitis.
3. Health promotion staff could be engaged in the development of a national action plan for hepatitis.

**Evidence-informed policy guiding comprehensive hepatitis action**

4. Development of a national action plan on hepatitis is crucial to progress action on hepatitis. This could be incorporated into the existing National HIV and STI Strategic Plan, which is due to be updated in 2016, and based on the Regional Action Plan.
5. Technical assistance from WHO will be needed in the development of this plan.
6. The process for development and endorsement of a national action plan is described above.

**Data supporting the hepatitis response**

7. Data on hepatitis B is extremely limited in Kiribati. There is a need for improved data collection to facilitate national disease burden and treatment burden estimates.
8. Improvements to data collection could be made by building on existing reporting systems.
9. Technical assistance from WHO will be needed to improve hepatitis data.

**Stopping transmission**

10. Policy and practice around health-care worker testing and immunization for hepatitis B should be clarified.

**An accessible and effective treatment cascade**

11. Hepatitis B treatment should be available for patients in Kiribati. The process for approval and introduction of a new medication is described above.
12. Affordable options for tenofovir supply should be investigated, including through existing distributors.
# ANNEXES

## ANNEX 1 – LIST OF PARTICIPANTS

### Ministry of Health and Medical Services Kiribati

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12. Bioeuateti Teauoki, Medical Ward Nurse in Charge

13. Dr Alfred Tonganibeia, Medical Officer  
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15. Dr Andre Reiffer, Country Liaison Officer  
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### World Health Organization Western Pacific Regional Office

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17. Dr Nick Walsh, Medical Officer viral hepatitis, HIS  
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### Observers

18. Michel Bringenberg, medical student

19. Elizabeth Debold, medical student

20. Suzy McKinney, trainee intern
ANNEX 2 - AGENDA

Technical meeting on raising awareness, surveillance, prevention and management of viral hepatitis in Kiribati

**Date:** Wednesday, 26 August 2015

**Venue:** Taiwan Medical Training Centre

<table>
<thead>
<tr>
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<th>Activity</th>
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<tbody>
<tr>
<td>10:00–10:15</td>
<td>Opening remarks, objectives and introductions</td>
<td>Andre Reiffer, WHO Country Liaison Officer, Kiribati</td>
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<tr>
<td>10:15–10:30</td>
<td>Update on the Global and Regional Hepatitis Programme (GHP)</td>
<td>Nick Walsh, Viral hepatitis focal point, World Health Organization, Regional Office for the Western Pacific</td>
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<td>10:30–10:40</td>
<td>Group photograph</td>
<td>Agnes B Nikuata</td>
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<td>10:45–11:00</td>
<td>Update on Hepatitis B immunization programme in Kiribati</td>
<td>Beia Tabwaia (Ministry of Health, Kiribati)</td>
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<td></td>
<td>Hepatitis laboratory support in Kiribati – an update</td>
<td>Gretna Tauma (Ministry of Health, Kiribati)</td>
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<tr>
<td>11:00–11:15</td>
<td>Hepatitis B treatment update – WHO guidelines and rationale for treatment</td>
<td>Nick Walsh</td>
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<td>11:15–11:30</td>
<td>Who needs treatment? Review from the Western Pacific Region</td>
<td>Julia Scott (consultant to Regional Hepatitis Programme, Regional Office for the Western Pacific)</td>
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<tr>
<td>11:30–12:00</td>
<td>Questions and answers</td>
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**Hepatitis B epidemiology, prevention and treatment**

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<tr>
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<td>Nick Walsh</td>
</tr>
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<td>11:15–11:30</td>
<td>Who needs treatment? Review from the Western Pacific Region</td>
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<tr>
<td>11:30–12:00</td>
<td>Questions and answers</td>
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<td>Discussion</td>
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**Implementation considerations for hepatitis B diagnosis and treatment**

- Access to screening and treatment
- Training needs
- Procurement of medicines

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<td>Procurement of medicines</td>
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<tr>
<td>14:00–14:30</td>
<td>Conclusion and recommendations</td>
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REFERENCES


