BARRIERS OF PEOPLE WHO INJECT DRUGS TO ACCESS FREE DIRECT ACTING ANTIVIRAL (DAA)

A COMMUNITY LED STUDY FOR PEOPLE WHO INJECT DRUGS, PEOPLE LIVING WITH HEPATITIS C, PEOPLE LIVING WITH HIV & HEPATITIS B AND C COINFECTION AT THE PRIMARY HEALTH CARE SETTINGS IN MALAYSIA

YATIE JONET
DRUG POLICY REEFORM & ACCESS TO HEALTH ADVOCATE
yatiejonet@gmail.com
TABLE OF CONTENT

The report contains the following sections:

1. Abbreviations
2. Acknowledgement
3. Objective of the Study
4. Approach and Methodology
5. Demographic of Clients
6. Key Findings & Snapshots
7. Discussion
8. Conclusion & Recommendations
9. Annexes

ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTAAG+</td>
<td>Positive Malaysian Treatment Access and Advocacy Group</td>
<td>MAC</td>
<td>Malaysian AIDS Council</td>
</tr>
<tr>
<td>AO</td>
<td>AIDS State Officer</td>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>CSO</td>
<td>Civil society organisations</td>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>ART</td>
<td>Active Retroviral Treatment</td>
<td>NGO</td>
<td>Non-Governmental Organisations</td>
</tr>
<tr>
<td>EXCO</td>
<td>Executive Committee</td>
<td>NSPEA</td>
<td>National Strategic Plan for Ending AIDS</td>
</tr>
<tr>
<td>FMS</td>
<td>Family Medicine Specialist</td>
<td>PO</td>
<td>Partner Organizations</td>
</tr>
<tr>
<td>DNDi</td>
<td>Drug for Neglected Disease</td>
<td>SVR</td>
<td>Sustain Virology</td>
</tr>
<tr>
<td>HIV</td>
<td>Human immunodeficiency syndrome</td>
<td>MAT</td>
<td>Medication Assisted Treatment</td>
</tr>
<tr>
<td>KP</td>
<td>Key populations</td>
<td>NSEP</td>
<td>Needle Syringe Exchange Program</td>
</tr>
<tr>
<td>MO</td>
<td>Medical Official</td>
<td>STI</td>
<td>Sexually transmitted infections</td>
</tr>
<tr>
<td>OI</td>
<td>Opportunistic Infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>Medical Assistant</td>
<td>TRP</td>
<td>Technical Review Panel</td>
</tr>
</tbody>
</table>
This report would not have been possible without the support, advice and encouragement of many people. Sincere appreciation is extended to Coalition Plus and Unitaid, local partners for the HCV Project the Malaysian AIDS Council (MAC) and the Positive Malaysian Treatment Access and Advocacy Group (MTAAG+). I also thank DNDi, TWN, key stakeholders from the Ministry of Health (MOH) at their Primary Health Care Settings for their support, Community Leaders from all Key Populations for the opportunity to make this community-led research study. This report would not be available without their essential guidance.

I am very grateful to my supportive sifu, Mr. Chung Han Yang, who graciously shared his wisdom, challenged my thinking and supported my efforts throughout the report write up. In addition, my committee members whose generously provided truthful insights of their experiences accessing HCV treatment. Together these individuals have contributed significantly to my knowledge and understanding the right methods to analysed, extracted important findings to finally getting the report ready and to be disseminated.

I have been fortunate to have many other people both at work and at home who have supported me without failing through this journey. Finally, this report was positively enabled through the unconditional love and support of my family and friends.

“It would be a criminal offense if you do not treat anyone in need of the Hepatitis C treatment that the government has provided for the people”

Deputy Health Minister YB Dr Lee Boon Chye issued his statement during his closing speech of the National Level Hepatitis C Conference on March 7 – 8, 2019. (8)
OBJECTIVE OF THE STUDY

This report is written by the community for the community, in collaboration with a group of community-based organisations. These advocates for access to universal treatment have been fully equipped and trained. They are well versed on the Hepatitis C (HCV) direct acting antiviral (DAAs) movement, working hand in hand with the Ministry of Health (MOH) on the National HCV Response. In 2018, Malaysia hit the headlines globally when the MOH announced their full commitment to treat people living with HCV (PLHCV) with the DAAs. Concurrently with this declaration and following achievements from all involved parties, success stories were projected nationwide.

As promising as the statement quoted below is, acknowledging the existing challenges from the MOH in 2018 right after the DAAs landed in the country, much more work still needs to be done and urgent measures are necessary for its expansion and its implementation at the local health clinics and among the civil society organisations.

“One can rest assured that the Health Ministry will continue treatment for Hepatitis C and is always proactive to ensure patients will get the necessary treatment in line with the World Health Organisation (WHO)’s target of eliminating Hepatitis C by 2030,” – Deputy General Noor Hisham (7)

While the diagnosis, management, and treatment for HCV infection have improved over recent years, gaps in the continuity of care for HCV infection (the “HCV care continuum”) persist among people who inject drugs (PWID). Undetected and untreated HCV infections acquired from sharing contaminated drug injecting paraphernalia greatly contribute to the HCV transmission and lead to further complications that represent a substantial part of the global morbidity and mortality rates.

However, if PWID were to successfully complete all of the steps in the care continuum, a majority would be effectively cured, due to the availability of highly efficacious DAAs. Consequently, an individual achieving a sustained
virologic response (SVR), also known as cure, would have a reduced risk of HCV-attributable morbidity and mortality, and that individual would be rendered non-infectious. This would decrease the risk of forward transmission at both the individual and population levels.

It is critical to reinvest towards strengthening treatment, increasing awareness, innovative harm reduction models, and other healthcare advocates’ capacity and technical knowledge on HCV diagnostics and treatment. Thus, the realization of the timely crucial and repeatedly mentioned approaches of “meaningful community engagement” in high-level national decision-making processes associated with regulatory approval, guidance development, and scale up of diagnostic technologies would result in fruitful impact.
A total of 51 individuals were enrolled into this study. Through the assistance of the network of national community leaders, people living with HCV, and/or co-infected with HIV and diagnosed more than 6 months and above were mobilized. Respondents were interviewed individually in a closed area. Respondents were asked to read the consent form and were asked to confirm their understanding and to agree to sign it before they were interviewed. From there, they were questioned according to the printed documents. Respondents were asked to share their personal experience and background as people living with Hep C along with their journey in accessing the treatment. Among 51 respondents interviewed, 28 were living with HCV and HIV co-infection and 2 of them were living with HCV, HIV and HBV co-infections.

Respondents were first asked to share their background and other demographic related questions. The questionnaire then targeted their position within the HCV Treatment Pathways Phases. Questions deliberately focused on their journey from first screening test till date, taking in consideration that none of the respondents had so far received DAAs. They were asked in depth questions on five key topics: 1) first known HCV status and diagnosed; 2) overall awareness and understanding of the DAA availability and accessibility; 3) the basic information of any risk behaviour intervention on harm reduction services, or a basic HIV/HCV 101 information ever given by the medical officer/assistant (MO/MA); 3) overall experience of the repetitive appointments; 4) experiences of PEG IFN failure (if appropriate); 5) financial burden embedded not only limited to transport, as some patients reported being asked to pay out of pocket for certain HCV related tests to access HCV diagnosis and treatment.
SUGGESTIONS OF SNAPSHOT OBTAINED FROM THE RECENT WORLD HEPATITIS ALLIANCE – MALAYSIA SURVEY 2018\(^{(10)}\)

Insufficient information is being given to patients about Hepatitis C – and about their own health.

Many Malaysians are not satisfied with the information they receive at diagnosis and they are also not aware of important information about their disease stage and treatment success. Despite a high proportion of people having the opportunity to speak with a specialist nurse, many choose to seek more information online.

Currently, most online searches are via search engines, which suggests that patients are not being signposted to specific, high-quality and trustworthy sources of information and supported by their healthcare teams. Governments have to take responsibility to ensure clear, high-quality information is easily accessible to the public when they need it. Governments and healthcare teams can also draw on the expertise of patient organizations in Malaysia to provide supplementary information, support, and advice for people diagnosed with hepatitis C.

It is inappropriate and unnecessary for patients.
### DEMOGRAPHIC OF CLIENTS

**Table 1:**

All 51 respondents were on MAT, 45 were of Malay origin, 3 of Chinese origin and 3 of Indian origin. Limitations to this study are reflected in this table as patients from other ethnical background were not included.

**Table 2:**

More than half of the respondents were above 40 years old. On that note, prevention and harm reduction services implemented in the past decades have resulted in less HCV infections amongst injecting drug users and PWUDs generally. This is due to HCV being mostly transmitted through sharing injecting paraphernalia.

**Table 3:**

All 51 respondents were PLHCV and 28 were co-infected with HIV. 2 clients were known to have been diagnosed with 3 deadly co-infections HCV+HIV+HBV.
TABLE 4:
In total 9 primary health care facilities from 9 districts in 9 states around peninsular Malaysia were chosen. Locations were selected based on the locality of the existing NSEP services NGOs had referred their known clients for their MAT and ART treatment.
Analysing the information gathered, the barriers highlighted by the
respondents are strikingly similar. The data shows critically how a small group from the most at risk population, who contracted HCV through injecting drugs 15 to 20 years ago, has so far still not been able to access any type of HCV treatment. Despite the MOH commitment to End AIDS by 2030 and their policy promoting HCV Treatment for All in 2018, medical assisted therapy (MAT) and/or antiretroviral treatment (ART) treatment uptake among PWID remains significantly low, despite it being a major requirement to access treatment, according to 11 of the respondents (indicator F), as a proof of their ability to comply with treatment conditions. This low adherence to harm reduction services greatly impacts their chances to gain access to HCV information, and therefore, diagnostic and treatment services. Moreover, even for those following MAT programmes, this is not a guarantee of accessing treatment, as according to this survey, 29.4% of the respondents who have aged living with HCV, HCV/HIV co-infection, and who have been followed for years at methadone maintenance therapy centres in Malaysia, have still not been referred to a gastroenterology unit.

Those who were already referred to diagnostic services and have entered the HCV cascade of care, still face consequent challenges in getting access to treatment. 41 respondents out of 51 (indicator A) indicated that despite being diagnosed positive, they are still clueless about the process and steps to access DAAs, but also even on basic HCV information. Instead, as shown by indicator D, many patients encounter repetitive appointments with out-of-pocket costs, and no explanation as to why they are not being put on treatment. This out-of-pocket cost include transportation to hospitals which can be more than 100km away but also fees for additional tests. Respondents have mentioned being asked to get specific tests from private labs as these were not available at their local healthcare centres. For many clients, these out-of-pocket costs represent an unbearable financial burden, increasing the risk of loss-to-follow up.

Despite the publication of Clinical Practical Guidelines on Diagnosis and Treatment of HCV in 2017, practitioners are often not following the MoH standard operating procedures (SOP), as highlighted by indicator B, with regards to prioritization of clients, information sharing and diagnosis cascade. Moreover, these SOPs are inherently not adapted to the needs of PWID in the first place. SOPs are not properly implemented and should be a main area for improvement in the HCV Elimination Response. The lack of national monitoring in the implementation of standardized procedures in the continuum of HCV curable pathways has contributed to unnecessary waiting time, repetitive blood draws schedules, and unbearable financial burden for HCV patients.

One other important barrier faced by clients trying to access HCV treatment is undoubtedly discrimination, as shown by indicator E, where patients are afraid to access services which could put them in a dangerous situation with regards to the Malaysian law on Drugs. For example, a respondent explained how he was told that there were no DAA stock available to treat PWID with
I was diagnosed with HIV in 2007, started taking ART and methadone. I found out (I have) HCV a year after taking HIV medication. It's been a long time. Doctors never say anything. When I asked, my doctor told me that my liver still ok. I will be fine. I feel pain in the lungs. My last HIV appointment was August 2018, but back then the doctor told me nothing about my liver condition" - P31

Finally, limited capacities at healthcare facilities represent a key factor for the lack of awareness, engagement and treatment of PWID-PLHCV (indicator C). They are not aware, not treated, not engaged in the curable pathways, because healthcare workers, themselves, are not engaged, trained and aware of HCV treatment opportunities for patients. Pre and post-test counselling, screening to treatment plans are not provided by healthcare workers to most, while the few who have been tested positive often find the rest of the pathway is difficult to navigate and hard for to adhere to, since it is not adapted to their specific needs and they do not receive adequate information on diagnosis and treatment access. Education of healthcare workers to provide reliable information therefore remains a strong barrier in PLHCV access to HCV treatment.

SNAPSHOT OF INCIDENCE AMONG PLHCV+PWID

<table>
<thead>
<tr>
<th>P12</th>
<th>HISTORY:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The respondent was diagnosed in 23/4/2017, with HCV RNA - 13,692. Shortly after, he was warded into Hospital Kota Bahru for 1 month for toxoplasmosis, and then transferred to Hospital Tumpat Kelantan. On 2010, the respondent started ART. On 2018, the medical officer changed the client’s ART Regime with CD4 329 &amp; VL 45 for HIV. Until the date of the interview and symptoms of opportunist infections begin to show, respondent has remained living with HCV un-referred, and untreated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>BARRIERS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On 21/5/2019, the client had blood drawn for full blood count. The Infectious Disease Doctor then asked him to come for another appointment on the 19/11/2019, in 4 months’ time. The doctor said the patient’s liver has a white layer (selaput putih) according to the ultrasound report. So far, the client has not been shortlisted to be treated with DAA and instead has endured repetitive blood screening appointments to keep up with the appointments given, which represent a high financial burden. Respondent shared the appointment cards that</td>
</tr>
</tbody>
</table>
This report highlights the fact that many PWID, living with Hepatitis C and enrolled in MAT programs at the local health clinics faced not just one but several key gaps in the implementation and scale-up of their HCV treatment response. In synthesizing the experiences and perspectives captured by the survey amongst PWID who are on MAT living with HCV, two themes emerged: 1) The lack of information and awareness on overall HCV DAA treatment and HCV pathways, as indicated by 80% of the respondents and 2) The lack of capacity and knowledge of healthcare services with regards to the national HCV curable pathways mechanisms by both patients and providers.

**KEY RECOMMENDATIONS:**

The respondent is aware of his health status and has shown a good track record with the Klinik Kesihatan (health clinic) visits. However, his adherence to all treatment should not be a factor for any MA/MO to decide his HCV treatment eligibility. Options for available HCV treatment should be given first-hand including a relevant timeline and schedules for appointments with clear explanations. The client should be consulted to discuss on a comprehensive HCV treatment plan to best cater to his needs.

Cases like this will eventually lead to rapid full bloom that can lead to mortality if the clients have to keep on waiting for another period of appointments from any medical officer.
At present, the dynamic between the two areas has reinforced a never-ending stigma and discrimination environment between both the patients and the health care providers. No single approach was designed, thought or reported as a best practice to treat and save PWID lives specifically. On that note again to highlight that prevention is better than cure, this study would like to encourage key players to rethink their care approaches to ensure those urgent cases are given the priority standards they deserve, to ensure essential services are provided to key populations and that the national HCV program save the lives of PWID clients, as it was created for.

A country needs to consider three aspects to develop a comprehensive
national HCV Response.
1. Key Population – Mobilising to get treatment and create demand
2. Civil Society Organization/Community Based Organization – Scaling up uptakes via proactive one to one programmatic knowledge sharing model and empowerment of key population
3. Service Providers – Attending stigma and discrimination workshops, along continuous medical education modules and actively engaging with the affected community.

This study therefore recommends for standard operating procedures’ implementation to be monitored closely nationwide but also that for them to be designed in a collaborative manner engaging both key population and civil society organizations. These SOPs should be less complex and designed to respond to the specific challenges faced by the different key populations at risk of HCV.

Without the mutual understanding of both parties – patients and healthcare providers - serving the key population as promised by the Ministry of Health and achieving the goal of elimination of HCV by 2030 will remain out of reach for Malaysia.
TABLE 5: PHOTOS OF EVIDENCES TO SHOW THE SCHEDULED APPOINTMENTS GIVEN WITHOUT DAA TREATMENT IN PLACE

ANALYSIS RESULTS: D – mat adherence as a condition to access TREATMENT
These 2 appointment cards showcase the emphasis on MAT adherence before accessing HCV treatment, as mentioned by 11 of the respondents

ANALYSIS RESULTS: C – FINANCIAL BURDEN
Respondents were given repetitive appointments and this burden is a major cause of lost to follow up
### HISTORY:
The patient age 48 years old, a Malay male, diagnosed with HIV in 23/1/2007, co-infected with HCV at the same time at Klinik Kesihatan (KK) (Health Clinic) Tamping. His first follow up visit was on 8/6/2015 at Hospital Melaka. His current viral load is undetectable since May 2016. But he needed to complete a new viral load test for viral rebound. On 23/1/2017, he tested again HCV positive in KK Tampin, Negeri Sembilan. His next appointment for gastroenterology took place 3 months later in the Hospital Tuanku Jaafar (HTJ), Seremban. He was then referred again from KK Tampin on 10/10/2019, for a blood draw appointment at HTJ. The patient experienced treatment failure as he stopped his interferon-based treatment in May 2016 (after 3 months treatment). The patient is currently on second line HAART (Tenvir Em / Kaletra) with CD4 of 430 and VL <20 (undetectable).

### BARRIERS:
The patient was not briefed by doctor on the next steps of follow-up. The patient wanted treatment, and another two more visits were arranged in his scheduled appointments. On 10/7/2019, he had just drawn blood for HCV RNA at Hospital Tuanku Jaafar, Seremban.

### KEY RECOMMENDATIONS:
The patient should be prioritised for getting his HCV treatment as he has shown keen interest to get treated, and he has been consistent in going through his past HCV treatment follow up scheduled appointments. However, there has been no clear communication about the patient treatment pathway which caused the patient to be confused, and to lack trust as to whether he will be able to access DAAs treatment. Simplified SOPs need to be applied for all HCV patients to follow, as recommended by WHO in order to retain the current patient.
<table>
<thead>
<tr>
<th>P18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HISTORY:</strong> The patient is currently being followed-up at Klinik Kesihatan Pandamaran, Klang, and was diagnosed HCV for 20 years at Pusat Serenti. His first follow-up visit in March 2019 at Selayang Hospital. In March 2019, he travelled to Hospital Selayang for HCV RNA test as he was being referred by a MO from the methadone clinic at KK Pandamaran, Klang.</td>
</tr>
<tr>
<td><strong>BARRIERS:</strong> He has been in methadone clinic for 8 years. He had experienced two months of waiting for confirmation test to ultrasound scan, and waited by call for next appointment. On 2/5/2019, he completed ultrasound with result 327 and x-ray. HTAR did not offer HCV RNA test to monitor treatment. Patient chose to go to Hospital Selayang, but he was faced with transport problem (with a cost of RM100 per visit). Again, the patient had to wait for the call for appointments. The MO told the patient that because of his cirrhosis, he needs a 6 months DAA treatment plan. The patient has travelled 2 times for his appointments from Klang to Selayang. He is currently In the process of treatment plan.</td>
</tr>
<tr>
<td><strong>KEY RECOMMENDATIONS:</strong> The patient should be highly prioritised for accessing HCV treatment with DAAs as he is a Cirrhosis patient. If not, this will cause his condition to be worsen in due time, and it may be even more challenging to fully treat his condition, occasioning additional financial burden for both the patient and the healthcare system. A fast track treatment pathway should be applied for all Cirrhosis patients, before the patient’s condition worsens beyond possible repair, causing unnecessary pain and potentially loss of life.</td>
</tr>
</tbody>
</table>

This PLHCV experienced medical intervention every 6 months at the primary healthcare clinic without any briefing or information sharing on DAA. Blood tests were conducted for unknown reasons. Despite a long-term enrolment in a MAT program and low CD4 count, the patient has not been shortlisted for HCV treatment. This may be due to discrimination as the patient failed Peg-Interferon treatment in the past and is an active PWID. (PATIENT 39)
DISCUSSION

This client survey focused on issues faced by PLHCV clients in terms of access to the latest Hepatitis C treatment, as provided by the government recently. This HCV Treatment Access Study Report will be presented to specific ministries to encourage the increase of the number of PLHCV clients’ uptake, especially among the population of Transgender, MSM, Sex Workers and PWID, and to demand the necessary HCV budget increase for the MOH to provide adequate health services and medicines to these key populations.

As HCV budget remains limited, access to treatment is consequently limited, resulting in a death sentence for many patients not prioritized for treatment or unable to access it so far, for the diverse reasons highlighted in this report. Voices of unheard patients’ group were gathered in this document as evidences of the existing gaps in the current national HCV program and as a starting point for further improvement from the MOH. These findings call for urgent measures of action from the MOH to enforce adequate plans to respond to the needs of each key players, patients, civil society organisations, state and district health departments, technical working groups.

Although the DAA uptake among PWID and PLHCV remains way too low to be declared as a successful implementation, through its launch of a national programme and its national strategic plan for HBV and HCV, Malaysia is indeed moving forward towards elimination of viral hepatitis. There has been improvement and a lot of achievements to be grateful for. However, Malaysia should not become complacent, looking at its successes but instead should continuously challenge the existing status quo and work to provide increased quality services to key populations, with their collaboration as the only way to achieve elimination.

HCV Patients want to be involved in decision making. Most people (74%) feels they should be involved in decisions regarding their HCV treatment (8)
CONCLUSION & RECOMMENDATIONS

In conclusion, through this survey, several major barriers have been highlighted, on one side relating to the shortcomings of the existing system, such as limited awareness among healthcare workers, unstandardized procedures and HCV treatment access criteria not in line with WHO recommendations, and on the other side, relating to lack of access for patients, such as criminalization of PWID, lack of HCV awareness, inadequate care approaches and unnecessary financial burden.

Based on the findings gathered above, the following list of recommendations is being made:

1. To provide training on HCV diagnostic, treatment and key population at risk for healthcare workers, including on stigma & discrimination.
2. To standardize HCV standard operational procedures for clinical care and to enforce a constructive administrative approach to integrate HCV care pathways services.
3. To ensure services for HCV treatment pathways meet the minimum standards of WHO HCV 2018 treatment guidelines and that the guidelines are respected nationally.
4. To improve the monitoring and evaluation of HCV data relating to both patients statistics and programme implementation.
5. To decriminalize drug use, possession and end mass incarceration of people who use drugs. Decriminalization creates an enabling environment for people who use drugs to seek essential healthcare and other services. Drug policy reform reduces stigma, discrimination, and violence against people who use drugs, respecting their human right to access to health. It is therefore essential to encourage decriminalization on one side and on the other side, a public health approach that increases funding and expands access to harm reduction services.
6. To provide trainings for community based-organisations and to develop patients networks to provide information, support and counselling as a way to reduce loss to follow up cases.
7. To include patient's groups (CSO/advocates) at every level of decision-making processes, especially in the construction of prevention, diagnostic and treatment standard operation procedures. People with lived experience must be included in strategies to shift tasks within hepatitis C-related services, as the only way to achieve higher quality services and health outcomes. Improving the quality of services and health outcomes requires intersectional approaches to address the social determinants of health that affect people who use drugs.
8. To provide valuable roles for community-based organisations to support their peers, assist with community-based testing, ensure patients complete DAA treatment, and help patients navigate services so they are retained in care.
9. To increase the capacity of outreach workers by training them to perform HCV rapid test, i.e. Community Based Testing (CBT) – adapting HIV Treatment Case Management Project for Key Population approaches and to provide services on community sites, including transportation assistance, counselling, diagnostic and treatment.

10. To provide treatment upon diagnostic to avoid high financial burden for patients.

11. To provide adequate funding based on updated estimation of treatment needs, to avoid shortage of medicines and diagnostic commodities.

“THERE IS NO SCIENTIFIC EVIDENCE TO DENY TREATMENT TO PEOPLE WHO INJECT DRUGS: THEY ACHIEVE SAME SEROLOGICAL SVR, HAVE HIGH ADHERENCE, AND HCV TREATMENT LINKS PEOPLE TO PREVENTION SERVICES, OST AND CARE.” – GLOBAL MOVEMENT
REFERENCE / ANNEXES

LINKS PROVIDED BELOW WERE CITED AND ADAPTED AS RECOMMENDATIONS TO TREAT PLHCV GLOBALLY.

4. WHO Guideline for Care and Treatment of persons diagnosed with chronic Hepatitis C https://apps.who.int/iris/bitstream/handle/10665/273174/9789241550345-eng.pdf
https://www.who.int/news-room/fact-sheets/detail/hepatitis-c
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6022838/
7. Guidelines for the care and treatment of persons diagnosed with chronic hepatitis C virus infection https://apps.who.int/iris/bitstream/handle/10665/273174/9789241550345-eng.pdf?ua=1
8. Datuk Lee Boon Chye in his remarks quoting that “It is a crime for not treating people who live with hepatitis c” in the recent National Hepatitis C Conference https://www.facebook.com/pg/clinicalresearchmalaysia/photos/?tab=album&album_id=2105760212843283&__xts__%5B0%5D=68.ARAf5Egx-5vTNVP9XA98JpKlf7KUdfi603kaNupgPa6KcWVUSbjf3q2c7XAFKuHGT9b6Zv6VT64OVPdUPPC4pH5T_imTphcui3eVBOJXc84qVb-Shiql525W4RuavOpi6DO0nXfU911ZdaIMBlfRwc1K3hLnT7ZWiiaEKnlTcC9ygYD3Yj2zJwaotIt-BlydAp5hQBRZ6rQF6hMKwwwyMJJ5b9MBVGJ0RMWOy2OhTiWi4bk5AwVXuvwRKJxYo2rTlh7wonaq7MqMeh5DBpxhGWG8AVRfmEW7Pfi4BkkTxijWsWaC3MqvRpuau_y3wddUGb8lp4hU6-iizhtp2weVw1DFu8C9mg&__tn__=-UC-R
11. https://www.hcvguidelines.org