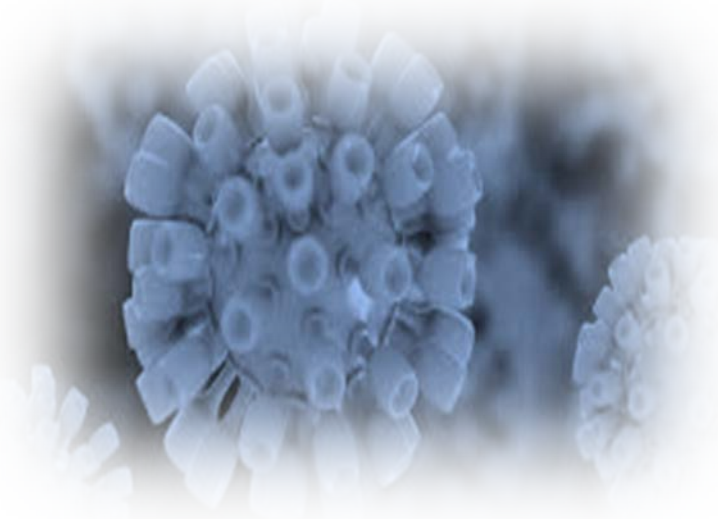




Hepatitis

Industry Perspective



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Current Trends

Demand And Uptake In LMICs



Demand and Uptake In LMICs

High APAC / CIS/Egypt

- CIS - Kyrghystan,Uzbekistan
- APAC - Myanmar, Vietnam ,Indonesia, Mongolia, India
- Egypt / Pakistan / Bangladesh / Algeria / Morocco

Low LMIC's

- Africa in General
- Other LDC's

Differentiating Factors

- ❑ **In-country Healthcare Systems** : Better In Asia And CIS Compared To Africa
- ❑ **Availability Of Diagnostic Tools** : In Africa Diagnostic Tools Are Not Widely Available And Accessible
- ❑ **Affordability** : More Patients Getting Treated In Private Setup In Asia And CIS Compared To Africa
- ❑ **Awareness** : Greater Amongst Patients And Healthcare Professionals In High Uptake Countries
- ❑ **Number Of Injection Drug Users**: Major Transmission Route (*Vs HIV/HEP Co Infection Limited*)
- ❑ **Fund Allocation And National Level Programs**: [NVHP](#) (National Viral Hepatitis Program)
- ❑ **Hep B Vs C** : Relatively High Hepatitis B Prevalence Globally, Africa More Sensitized Towards Hep B



Challenges

Under Current Settings



Challenges

Quality

- Exhaustive And Expensive SRA Or WHO PQ Prequalification Approvals.
- Vs
- Non Licensed And Regional Players Who Are Faster To The Market.
- Country Level Regulatory Requirements
- Quality Of Non Licensed / Regional Players And There Prices. Given That IP Landscape For API's Is Still Loose.

Competition

- With In Licensed Players :
 - Investment In BE And Other SRA Approvals
 - Price Aggressiveness Due Limited Opportunities Currently.
- Generics : Non Licensed And Regional Players

? Given This Situation How Much Investment Will Be Affordable And By How Many.



Finding Patient Population

- Superior DAAs Vs. Interferons
- Success Countries :
 - Products Registered By Multiple Companies
 - Supplies Initiated
 - Availability Of Oral Therapy With DAAs For Existing Patients –Treated And Cured
- Non-success Countries :
 - Hep C Is Not On A High Agenda.
 - Few Countries Have Taken Baby Steps
 - Other Countries Still Evaluating.
 - Funding Is A Big Challenge Currently.
 - Limited Diagnostic Services.
 - Difficult To Find Asymptomatic Patient Population

Medical Specialists :

- Gastroenterologists/ Hepatologists Limiting Access.
- In General Id Doctors Not Treating Hep C In Africa.

Working With Injection Drug Users

- [Source Of Infection](#) need For Regular Monitoring
- Working with IDU population is a challenge needs a robust social support systems.
- Required Investment and Infrastructure Chances Of Relapse

Scaling Up

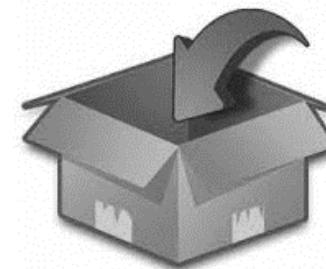
Hepatitis Treatment



Steps for Scale up

Service Bundling : One Point Solution

- Tie Up With Diagnostic Facilities And Treatment Providers
- Offering Complete Test And Treat Package



Bringing Hepatitis To The Level Of HIV/TB/MALARIA

- Funding
- Innovative Financing
- Soft Loans



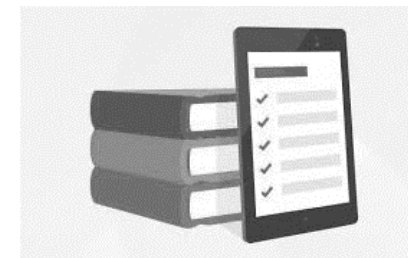
General Practitioners Treating Hepatitis

- Involving GPs For Increased Accessibility And Affordability
- Possible With Simplified Treatment Regimen With DAAs



Need For National Level Programs (Eg. Success Countries)

- Ethiopia : Patient Pooling----quantification For PFSA Tender
- Cameroon : Procurement Of Hepatitis Commodities Via CENAME Tender
- Rwanda: started a pilot program with innovator products
- Indonesia : Allocated Budget For Hepatitis Program----MOH Tender Procurement



Steps for Scale up

Socio-Economic Impact

- Benefit To Countries For Treating Hepatitis Patients

Hepatitis In Primary Healthcare

- Need more screening for Hepatitis B And C
- Improving Availability Of Other Diagnostic Tools



Turnkey Projects For Countries

- Facilitate Treatment Programs
- Countries To Take Over After Witnessing The Success



Collective Efforts

- NGOs and World Hepatitis Alliance
- MOH
- Funding Bodies
- Manufacturers





Thank You!