The Response to the COVID-19 Pandemic: Opportunities to Advance Progress Toward Hepatitis Elimination

John W. Ward, MD
Director, Coalition for Global Hepatitis Elimination
Professor, Hubert Department of Global Health
Rollins School of Public Health
Emory University, Atlanta Georgia
jward@taskforce.org
Disclosures

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Agenda

• Scope of the COVID-19 pandemic
• Impact of COVID-19 response on delivery of hepatitis services
• Opportunities coming from the COVID-19 for building capacity to eliminate hepatitis
  • Screening and diagnoses
  • Access to care
  • Prevention e.g., harm reduction
• Role of hepatitis elimination programs in pandemic response
• From pandemic response to recovery: hepatitis elimination within resilient health systems
Global Burden of Disease: COVID-19, October 15th 2021

<table>
<thead>
<tr>
<th>Total Cases</th>
<th>Total Deaths</th>
<th>Total Vaccine Doses Administered</th>
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<table>
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<th>28-Day Cases</th>
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<td><strong>211,353</strong></td>
<td><strong>709,084,501</strong></td>
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Source: https://coronavirus.jhu.edu/map.html
Global Access to Hepatitis C Testing and Care is Inadequate

Source: World Health Organization
Decreases in HCV Testing and Treatment During the First Months of COVID-19 Pandemic- United States

HCV antibody tests, 2018- 2020, by week

At the lowest levels: 65.6% decline in antibody tests in 2nd week of April

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8107198/#

Monthly change in HCV RNA+ tests and HCV treatments in 2020 vs. 2018- 2019 baseline

Bar: HCV RNA
Line: HCV treatment
Global Impact of COVID-19 Response on Hepatitis Testing and Treatment

- 103 clinicians and program managers from 44 countries
- >50% decrease of in-person clinic visits
- ≥ 80% disruptions in HBV and HCV testing and treatment services
- 64% of respondents reported increases in in-person hepatitis care
- 80% reported the volume of in-person care remained lower than pre-COVID levels

Potential Benefits to Hepatitis Prevention, Care and Treatment from COVID-19

Global-Possible Benefits to Hepatitis Prevention, Care and Treatment

Frequency

- Increased Lab Testing Platforms
- Improved Referral Networks
- Improved Contract Tracing
- Demonstrating Value of Hepatitis Clinics
- Improved Training
- Improved Surveillance
- Improved Reporting
BENEFITS OF THE COVID-19 RESPONSE FOR ACCESS TO TESTING AND CARE

Opportunities to Improve Hepatitis Testing in the Context of the COVID-19 Response

1. Access to expanded capacity for virologic testing in response to COVID-19

2. Integration of hepatitis and COVID-19 testing

3. Use of hepatitis testing programs for pandemic preparedness (e.g. PWID, homeless)
Africa CDC COVID-19 Response: Growth of Viral Diagnostic Capacity

January, 2020: No diagnostic capability

February, 2020: 2 countries with diagnostic capability

August, 2020: +1000 Lab personnel trained
+5M test kits and supplies distributed
+12M tests conducted
All countries with diagnostic capability

Source: Dr. Mohammed Abdulaziz, Africa CDC
Expanded Lab Capacity for SARS-CoV-2 Presents Opportunities for Improved Access to HCV Testing

<table>
<thead>
<tr>
<th>Platform</th>
<th>Roche COBAS AmpliPrep/COBAS TaqMan</th>
<th>cobas 4800 System</th>
<th>cobas 6800/8800 Systems</th>
<th>Hologic Panther</th>
<th>Qiagen QIAasympohmy SP/AS</th>
<th>Cepheid GeneXpert*</th>
<th>Abbott Alinity m</th>
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*GeneXpert may be operated as a near point of care platform, though is frequently used in centralized labs.

Source: Publicly available information

Source: CHAI HCV Market Intelligence Report 2021
Global Initiatives
Access to COVID-19 Tools Accelerator (ACT)

• Started September 2020
• Through July 2021:
  • Raised US$ 11.0b
  • Procured ~94 million tests for LMICs
    • 37.8 million molecular (PCR) tests
    • 56.8 million Ag RDTs ($2.50 per test)
  • Supported ~70 countries to expand laboratory infrastructure
  • Improved supply chain reliability
• Promoting integration within existing health systems
• Driving development of high quality, low-cost tests
  • Rapid diagnostic tests
  • Multi-pathogen tests

Potential benefits
Development of an HCV core antigen RDT:
COVID-19 opens an avenue for expedited manufacturing and implementation preparations conducted in parallel with R&D
COVID-19 Diagnostic Systems Can Be Applied to Hepatitis Testing

Chughtai Lab Lahore Pakistan
• 226 Collection Centers across Pakistan
• Before COVID-19: Manual PCR testing only
• During COVID-19: automated PCR testing
• ~1000 tests/day SARS-CoV-2
• 400 GeneXpers for POC SARS-CoV-2 testing
• Potential to support hepatitis elimination
• “Turning a crisis into an opportunity”
  Dr Faisal Sultan, Government of Pakistan

Ethiopian Public Health Institute and St Paul’s Hospital Addis Ababa
• First automated PCR machines purchased for SARS-CoV-2 diagnosis
• Opened a gateway to testing for HBV, HCV, HIV, TB, HPV and other sexually transmitted infections
• Strengthen health system: “the era of sending samples abroad for testing has come to an end”
  Deme Gurmessa, Retina Pharmaceuticals.

Sources: M Maniecki Roche: personal communication; Ethiopian Monitor 2021.
https://ethiopianmonitor.com/2021/10/06/key-diagnostics-boosted-in-ethiopia. Faisal Sultan
https://www.globalhep.org/hep-test-webinar-series
Integrate Hepatitis Testing with COVID-19 Testing and Vaccination

Mass Population SARS-CoV-2 and HCV Screening: Northern Italy, August-November 2020

• Voluntary screening in community settings in 3 towns
• 5,152 persons (43%) of inhabitants tested for SARS-CoV-2
• 2,505 (49%) also accepted testing for HCV
• 72 persons (2.9%) anti-HCV positive
• 46% were unaware of their HCV infection

Planned study in Cantabria, Spain

• HCV infection testing will be offered to 50,000 persons receiving COVID-19 vaccination

Sources:
HCV Testing Infrastructure Utilized for COVID-19 Testing—can be used for pandemic responses

President calls for all adult HCV testing

Health Promotion Campaign 2018-2019

HCV AB rapid test
57 million tested
2,207,397 anti-HCV+

Emergence of COVID-19
Feb. 2020

Limited supply of quality tests

Re-deploy PCR machines for COVID-19

PCR samples collected at viral hepatitis treatment centers and referral to 77 PCR testing sites
(36,000 testing capacity per day)
HCV PCR+ 1,161,560

>1 million SARS-CoV-2 tests

Source: Mohamed Hassany, National Hepatology and Tropical Medicine Research Institute Cairo, www.globalhep.org
HCV Infrastructure used for COVID-19 response in Georgia

2017: Launch of national HCV reference laboratory

November 2018: Move to decentralized HCV testing:
- anti-HCV RDT: clinical care
- HCV RNA: lab network, clinical care, drug treatment

As of Sept 2021
- Anti-HCV tested 2,416,000
- Anti-HCV+ 146,000
- RNA tested 98,600
- HCV RNA + 78,000

The virologic testing capacity, and decentralized model aided Georgia’s response to COVID-19

1.2 million SARS-CoV-2 tests were completed in the first 10 months of the pandemic

Source: Information on slide courtesy of Maia Alkhazashvili and NCDC in Georgia
COVID-19 RESPONSE AND OPPORTUNITIES TO IMPROVE HEPATITIS CARE
Innovative Care Strategies
HCV Testing and Treatment of Persons Temporarily Housed During the COVID-19 Pandemic

Mobile HCV testing unit for homeless persons
Houses in a hotel: Leeds, England

R Wilkinson, CLINICAL LIVER DISEASE, VOL 17, NO 2, FEBRUARY 2021
Rapid Adoption of Telehealth in the United States

Number of telehealth patient encounters reported by four telehealth providers that offer services in all states and percentage change in telehealth encounters and emergency department (ED) visits — United States, January 1–March 30, 2019 (comparison period) and January 1–March 28, 2020 (early pandemic period)*


Slide courtesy for Dr. Elizabeth Verna
Scale up of Telemedicine in Response to COVID-19

Pre-pandemic
35 states allow telemedicine visits

Jan 31, 2020
Secretary, HHS declared public health emergency (PHE)

March 17, 2020
• Began equal Medicare reimbursement for telemedicine and in-person visits;
• Waived/reduced patient cost sharing
• Relaxed HIPAA restrictions: Allow use of non-public facing remote channels to communicate with patients

In 2020:
• Among health plan beneficiaries, 20 fold increase in telemedicine
• 51% of gastroenterologists reported use of telemedicine

As of March 15, 2021:
• 22 states improved telemedicine coverage
• 8 states passed new legislation

### Next Steps for Telemedicine Improving Care for Chronic Liver Disease

| Advocacy to make temporary USG support permanent | Equal insurance reimbursement  
| Support to reduce disparities in telemedicine access and use | HIPAA compliance  
| | Current disparities in access/use of telemedicine:  
| | • Older age  
| | • Low income  
| | • Rural communities  
| | • IT access  
| Operational research to guide application | Process evaluations to demonstrate feasibility and patient acceptability  
| | Need outcome research to guide recommendations for clinical practice  

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BENEFITS FOR HEPATITIS PREVENTION:

HARM REDUCTION
Innovations to Maintain Access to Safe Injection Equipment during the COVID-19 Pandemic

1. Decrease contact time
   - Prepack supplies for participants
   - Increase amount of supplies provide (e.g. 2-4 weeks)

2. Expand delivery options
   - Peer-delivery
   - Mail
   - Vending machines

3. Begin federal support for SSP services
   - American Rescue Plan Act of 2021 (ARPA)
   - $30 million to support syringe services programs, and other harm reduction services
   - Provision of naloxone and sterile syringes
   - Must advocate to move from emergent to annual funding

https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm#dashboard
COVID-19 revealed weaknesses in health systems and disparities in health care

To recover: Build resilient health systems with capabilities to prepare for, recover from health emergencies while maintaining core functions and serving the ongoing and acute care needs of their communities

Global Recommendations
• Sustain pandemic investments to build capacity for emergency response and essential health services
• Ensure that health systems appropriately prioritize essential services
• Take an all-society approach with multiple partners contributing to health system strengthening
• Strengthen primary care as the core of integrated health services
• Scale-up innovative models implemented for the pandemic to facilitate quality and equitable access to health services
• Extend health protection and health-care provisions beyond the pandemic to relive health disparities

Recovery planning in progress
• Mental health
• HIV and sexual health
• Malaria
• TB
• Maternal, neonatal, and child health
• Non-communicable diseases
• Neglected tropical disease

https://www.nature.com/articles/s41591-021-01381-y
https://www.who.int/publications/i/item/WHO-UHL-PHC-SP-2021.01
https://www.mdpi.com/1660-4601/18/15/8084/pdf
https://reliefweb.int/report/world/partnering-ensure-essential-health-services-during-pandemic
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8511626/
Moving from Pandemic Response to Recovery  
Accelerating Progress Toward Hepatitis Elimination

- Continue to monitor immediate and longer-term effect of COVID-19 on hepatitis prevention, testing and treatment
- Recognize the recovery phase offers opportunities to promote as priorities the interventions to eliminate HBV and HCV transmission and disease
- Promote recognition that hepatitis prevention and care for liver disease are essential health services
- Participate in forming the concepts for resilient health systems and planning coverage of essential services
- Initiate advocacy, the operational research and policy development to promote the innovations in hepatitis prevention and care coming from the pandemic response
- Develop action plan to capitalize on the transformations in public health and clinical care coming from the response to the COVID-19 pandemic