COVID-19 and HIV
Latest WHO updates and guidance
Update 3 April 2020

Meg Doherty, MD, PhD, MPH - Director
WHO Department of Global HIV, Hepatitis and Sexually Transmitted Infection Programmes
Recapping the last 3 months as we start month 4 ....

- A pneumonia of unknown cause detected in Wuhan, China was first reported to the WHO Country Office in China on 31 December 2019
- WHO is working 24/7 to analyze data, provide advice, coordinate with partners, help countries prepare, increase supplies and manage expert networks
- The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020
- On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19
- By 2 April 2020, more than 900 306 confirmed cases reported and 45 692 deaths in 205 countries

Sharing real-time updates and technical advice: www.who.int
And guidance documents: https://www.who.int/emergencies/diseases/novel-coronavirus-2019
Current Situation (As of 01 Apr, 18H Geneva Time)

Between 31 Dec 2019 - 01 Apr 2020
- **827,419 cases** from 205 countries/states/territories and 1 international conveyance
- **40,777 deaths** from 127 countries/states/territories and 1 international conveyance

10 countries with highest number of cumulative cases:
- **United States of America** (163199)
- Italy (105792)
- Spain (94417)
- China (82638)
- Germany (67366)
- France (51477)
- Iran (Islamic Republic of) (47593)
- The United Kingdom (25154)
- Switzerland (16108)
- Turkey (13531)

10 countries with most reported number of cases in past 24 hours:
- **United States of America** (22559)
- Spain (9222)
- France (7500)
- Germany (5453)
- Italy (4053)
- The United Kingdom (3009)
- Iran (Islamic Republic of) (2987)
- Turkey (2704)
- Canada (1378)
- Portugal (1035)
Number of confirmed cases notified under IHR or from official government sources by WHO region, for China, and International Conveyance (Diamond Princess) as of 01 Apr 18H
Total # of cases with sex and age information (n=159,504)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>47%</td>
</tr>
<tr>
<td>Male</td>
<td>52%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>1.0%</td>
</tr>
<tr>
<td>10-19</td>
<td>2.9%</td>
</tr>
<tr>
<td>20-29</td>
<td>13.4%</td>
</tr>
<tr>
<td>30-39</td>
<td>16.2%</td>
</tr>
<tr>
<td>40-49</td>
<td>17.0%</td>
</tr>
<tr>
<td>50-59</td>
<td>20.7%</td>
</tr>
<tr>
<td>60-69</td>
<td>13.5%</td>
</tr>
<tr>
<td>70-79</td>
<td>8.6%</td>
</tr>
<tr>
<td>80+</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

Data cleaning are ongoing and a work in progress, please interpret with caution.

World Health Organization
Total # of recorded deaths by sex and age group

Female: 253 (38.1%)
Male: 499 (60.2 %)

Note: Most death reports are from EURO Member States
Global COVID-19 Strategy (as of 17 March – Strategy being updated)

Goal
• To save lives, minimize disruption of societies, and protect economies

The Four Things that Every Country Must Do
• Prepare and Be Ready
• Detect, Protect & Treat
• Reduce and Suppress Transmission
• Learn, Innovate, Improve and Improve

WHO has defined four transmission scenarios 4Cs for COVID-19:
1. Countries with no cases (No cases);
2. Countries with 1 or more cases, imported or locally detected (Sporadic cases);
3. Countries experiencing cases clusters in time, geographic location and/or common exposure (Clusters of cases);
4. Countries experiencing larger outbreaks of local transmission (Community transmission).
What we can learn from the China response

China’s differentiated approach averted 100,000s of cases

China is using fundamental public health measures...

- Universal population measures
- Case isolation & management
- Close contact quarantine
- Suspension of public gatherings
- Movement restrictions
Severity profile of COVID-19

There are little data from populations with high prevalence of HIV, malnutrition etc.

Hypothetical estimate of numbers requiring hospitalization based on current size of outbreak:

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of reported cases</th>
<th>20% (# people requiring oxygen &amp; ventilation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>27,980</td>
<td>5,596</td>
</tr>
<tr>
<td>Iran</td>
<td>14,991</td>
<td>2,998</td>
</tr>
<tr>
<td>Spain</td>
<td>9,942</td>
<td>1,988</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>8,320</td>
<td>1,664</td>
</tr>
<tr>
<td>Germany</td>
<td>7,272</td>
<td>1,454</td>
</tr>
</tbody>
</table>

Based on the following assumption: all severe (15%) and critical cases (5%) require hospitalization.
These numbers represent the current situation (as of 17.03.2020) which will change as more cases are confirmed.
EPI-WIN

https://www.who.int/teams/risk-communication

Epidemiological insights

- At diagnosis, approximately 80% of cases are mild/moderate; 15% severe; 5% critical
- Disease progression: approx. 10-15% of mild/moderate cases become severe, and approximately 15-20% of severe cases become critical
- Average times:
  - from exposure to symptom onset is 5-6 days after infection;
  - from symptoms to recovery for mild cases is 2 weeks;
  - from symptoms to recovery for severe cases is 3-6 weeks;
  - from symptoms onset to death is from 1 week (critical) to 2-8 weeks.
- COVID-19 much less frequent in children than adults; and children tend to have milder disease
Q&A on COVID-19, HIV and antiretrovirals

24 March 2020 | Q&A

Are people living with HIV at increased risk of being infected with the virus that causes COVID-19?

Can antiretrovirals be used to treat COVID-19?

Can antiretrovirals be used to prevent COVID-19 infection?

What studies on treatment and prevention of COVID-19 with antiretrovirals are being planned?

What is WHO’s position on the use of antiretrovirals for the treatment of COVID-19?

https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-hiv-and-antiretrovirals
COVID-19 and HIV

- Patients with severe immunodeficiency usually have high risk of complications with any infectious disease
- Mild moderate CoV disease despite severe immunodeficiency – all cases recovered
- PLHIV low CD4 & COVID similar outcomes to non-PLHIV (Guo, 2020)
- Defective cellular immunity in HIV infection could paradoxically be a protective factor?
- Potential therapeutic role of HIV protease inhibitors?
- Lack of SARS in AIDS patients hospitalized together (Chan, 2003)
- None of 19 PLHIV hospitalized at the same ward with SARS patients in a hospital in China got infected, despite many HCWs caring both groups got SARS-CoV - due to Protective effect of ARVs?
Consideration of Highly Active Antiretroviral Therapy in the Prevention and Treatment of Severe Acute Respiratory Syndrome

Letters to the Editor

Lack of Severe Acute Respiratory Syndrome in 19 AIDS Patients Hospitalized Together

To the Editor,

Severe Acute Respiratory Syndrome (SARS) was first identified in China in 2002 and later worldwide. The outbreak caused by a previously unknown coronavirus, designated as SARS-CoV-2, is the most recent pandemic. We report herein the clinical files of each HIV-infected/AIDS patient for information regarding ward distribution, ventilation, isolation measures, CD4+ T cell counts, opportunistic infections, and treatment regimens, including highly active antiretroviral therapy. A total of 19 AIDS patients, with CD4+ T cell counts ranging from 100 to 200 cells/μL, were admitted to the hospital. A correct diagnosis was established. Of the 19 AIDS patients, 15 stayed for >1 month with SARS patients on the same floor during the period of investigation. All AIDS patients had opportunistic infections, and most had very low CD4+ T cell counts. All patients had received highly active antiretroviral therapy, which was continued during their hospitalization. Further studies are needed to understand the impact of HIV/AIDS on the course and outcome of SARS-CoV-2 infection.

Yours sincerely,

Sincerely,

[Signature]

Reference:

Available online at www.sciencedirect.com
Journal of Hospital Infection
www.elsevier.com/locate/ijn

Epidemiologic Features and Clinical Course of Patients Infected With SARS-CoV-2 in Singapore

Barnaby Edward Young, MB, BChir; Sean Wei Xiang Ong, MBBS; Shrin Kallmuddin, MPH; Jenny G. Low, MPH; Seow Yen Tan, MBBS; Jiashen Loh, MBBS; Oon-Tek Ng, MPH; Kalsvir Martimuth, MBBS; Li Wei Ang, MSc; Tze Minn Mak, PhD; Sok Kiang Lau, PhD; Danielle E. Anderson, PhD; Kian Sing Chan, MBBS; Thien Yen Tan, MBBS; Tong Yong Ng, MBBS; Lin Cui, PhD; Zubaidah Said, MSc; Lalltha Kurupatham, MPH; Mark I-Cheng Chen, MBBS; Shawn Vaso, MBBS; Lin Fa Wang, PhD; Boon Huey Tan, PhD; Raymond Choo Pin Lim, MBBS; Vernon Jan Ming Lee, PhD; Yee Shit Loo, MPH; David Chien Lye, MBBS; for the Singapore 2019 Novel Coronavirus Outbreak Research Team

May 3, 2020

World Health Organization

25 registered trials
19 for LPV/r
1 LPV
1 Rit
1 DRV/COB
1 TAFI
Efficacy and safety of ARVs for the treatment and prevention of SARS, MERS or COVID-19

Use of ARV as treatment for CoV infections

• 22 observational studies on the use of ARV drugs (most studies using LPV/r as treatment).
  • 20 studies reporting treatment outcomes, 3 studies with SARS, 6 studies with MERS, 11 studies with COVID-19
  • Of 227 patients given LPV/r, 2 deaths were reported by 22 obs studies. Timing, duration and dose of treatment varied, and several studies provided co-interventions
  • The certainty of the evidence is low across all 3 diseases: Small sample size, only two studies provided comparative outcomes (one using historical controls) and none were randomized.
  • 1 RCT: patients with severe COVID-19 receive LPV/r (400mg/100mg twice a day) vs SoC for 14 days: 28 day mortality was numerically lower in the LPV/r group (14/99) compared to the control group (25/100) but this difference was not statistically significant.

Use of ARV as Prevention (PEP) for CoV infections

• 2 studies reported a possible protective effect of LPV/r as post-exposure prophylaxis (SARS and MERS). The certainty of the evidence was very low due to uncertainty and limited sample size.


• 19 assessing LPV/r, 1 assessing upboosted LPV, 1 assessing ritonavir, 1 darunavir and cobicistat, 1 assessing TAF
LPV/r in patients with severe COVID-19

Key findings:
- Open label (not blinded) - n= 199
- 1 hospital in Whuan (China)
- time to clinical improvement, 28 day mortality rate and throat viral RNA detectability were similar in both arms
- median time to clinical improvement was shorter by 1 day in LPV/r arm (modified ITT)
- Gastrointestinal adverse events were more common in LPV/r arm
- Continuous follow up planned
Major Drugs in Clinical Development to treat COVID-19

• Remdesivir (GS-75734)
• HIV protease inhibitors (LPV/r, DRV/COBI, ASC09/RTV)
• Cloroquine/Hydroxiclorquine
• Immunomodulators (Interferon–alfa 2b; thymosin-alfa)
• Broad activity antivirals (Umifenovir, Baloxavir marboxil, Favipiravir; Galidesivir)
• Monoclonal antibodies (Camrelizumab, Toclizumab)
• Traditional Chinese medicines
WHO launched the SOLIDARITY trial on 18 March 2020. The SOLIDARITY trial provides simplified procedures to enable even hospitals that have been overloaded to participate.

The trial entails:
- an experimental antiviral compound called remdesivir; the malaria medications chloroquine and hydroxychloroquine; a combination of two HIV drugs, lopinavir and ritonavir; and interferon-beta.

Many countries have already confirmed that they will join the SOLIDARITY trial: Argentina, Bahrain, Canada, France, Iran, Norway, South Africa, Spain, Switzerland, and Thailand.

The COVID-19 Solidarity Response Fund has raised over US$43 million from more than 173,000 individuals and organizations. FIFA has contributed US$10 million.
**Examples of Clinical Investigation Therapies**

### COVID-19: Investigational Therapies

Standard of care remains supportive care. Investigational therapies are described below.

#### ANTI-VIRALS

**CHLOROQUINE + HYDROXYCHLOROQUINE**

*anti-microbial, anti-inflammatory*

- Current status: multiple phase II + III trials enrolling
  - In vitro inhibition of SARS-CoV-2
  - Standard care in China
  - Experimentally used with azithromycin for prevention of bacterial superinfection *(caution: risk for QT prolongation)*
  - Concern for national shortage

**LOPINAVIR/ritonavir**

*protease inhibitor*

- Current status: multiple phase II + III trials enrolling
  - In vitro inhibition of SARS-CoV-1 and MERS-CoV
  - Clinical improvement observed in SARS if given early
  - Recent SARS-CoV-2 trial showed no clinical improvement
  - Limited by late distribution of investigational drug
  - Use limited by side effects and medication interactions

#### IMMUNOMODULATORS

**REMDESIVIR**

*nucleotide analog pro-drug*

- Current status: multiple phase III trials enrolling
  - In vitro inhibition of SARS-CoV-2

**TOCILIZUMAB**

*more potent IL-6 inhibitor*

- Current status: two phase II trials enrolling or soon to be enrolling
  - Used for severe illness

**SARILUMAB**

*less potent IL-6 inhibitor*

- Current status: three phase III trials enrolling or soon to be enrolling
  - Used for severe illness

Other investigational therapies include favipiravir, interferon beta, ribavirin, baricitinib, and convalescent sera.

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Clinicaltrials.gov
www.nature.com/articles/s41472-020-0282-0
Hong Kong Med J. 2003; 9(1):599-606

Creators: Emily Evans, MS4 & EmilyEvs, Chloe Lalonde, MS4
Graphic support: Caroline Coleman, MS4 & c Coleman
Peer reviewer: Aditi Ramakrishnan, MD
COVID-19 Updates/New technical guidance

- **New Guidance**
  - **Surveillance:** Operational considerations for surveillance of COVID-19 using GISRS
  - **Clinical care:** Severe Acute Respiratory Infections Treatment Centre: Practical manual
  - **Logistics:** Essential Supplies Forecasting Tool
  - **Lab:** Guidance for laboratories shipping specimens to WHO reference laboratories that provide confirmatory testing for COVID-19 virus

COVID-19 New technical guidance (continued) and Scientific Briefs

Additional new guidance
• Maintaining essential health services
• COVID-19: Operational guidance for maintaining essential health services during an outbreak
• Guiding principles for immunization activities during the COVID-19 pandemic
• Operational considerations for COVID-19 management in the accommodation sector (Hotels)

Scientific Briefs (New technical product)
— Scientific summaries of available evidence on specific topics:
  • Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations
  • Off-label use of medicines for COVID-19
  • Origin of SARS-CoV-2
Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected
Interim guidance
13 March 2020

This is the second edition (version 1.2) of this document, which was originally adapted from Clinical management of acute respiratory infection when MERS-CoV infection is suspected (WHO, 2019).

It is intended for clinicians involved in the care of adult, pregnant, and paediatric patients with or at risk for respiratory infection (SARI) when infection with the COVID-19 virus is suspected. Considerations for pregnant women are highlighted throughout the text. It is not meant to replace clinical judgment or special training in the management of these patients and to provide up-to-date guidance. Best practice, prevention and control (IPC), and optimized supportive care are included.

This document is organized into the following sections:

1. Background
2. Screening and triage: early recognition of patients with SARI associated with COVID-19
3. Immediate implementation of appropriate IPC measures
4. Collection of specimens for laboratory diagnosis
11. Adjunctive therapies for COVID-19: corticosteroids
12. Caring for pregnant women with COVID-19
13. Caring for infants and mothers with COVID-19: IPC and breastfeeding
14. Care for older persons with COVID-19
15. Clinical research and specific anti-COVID-19 treatments

Appendix: Resources for supporting management of SARI in children

These symbols are used to flag interventions:

- Do: the intervention is beneficial (strong recommendation) OR the intervention is a best practice strategy
- Don't: the intervention is known to be harmful
- Consider: the intervention may be beneficial in selected patients (conditional recommendation) OR be considered at this time.

To date, there are limited data on clinical presentation and perinatal outcomes after COVID-19 during pregnancy or the puerperium. There is no evidence that pregnant women present with different signs or symptoms or are at higher risk of severe disease, but there is no evidence on mother-to-child transmission when infection manifests in the third trimester, based on negative studies from mumps, rubella, and varicella. Similarity, evidence of increased severe maternal or neonatal outcomes is uncertain, and limited to infection in the third trimester, with some cases of premature rupture of membranes, fetal distress, and prematurity born (68, 86).

This section builds on existing recommendations from WHO on pregnancy and infectious diseases and provides additional remarks for the management of pregnant and recently pregnant women.

- Considering asymptomatic transmission of COVID-19 may be possible in pregnant or recently pregnant women, as with the general population, all women with an epidemiologic history of contact should be carefully monitored.

- Pregnant women with suspected, probable, or confirmed COVID-19, including women who may need to spend time in isolation, should have access to women-centred, respectful skilled care, including antenatal, maternal and neonatal care, as well as mental health and psychosocial support, with readiness to care for maternal and neonatal complications.

In the Spanish flu pandemic of 1918, observational studies in influenza found a higher risk of mortality and secondary infections with corticosteroids; the evidence judged as very low to low quality owing to confounding by indication (63). A subsequent study that addressed this limitation by adjusting for time-varying confounders found no effect on mortality (64). Finally, a recent study of patients receiving corticosteroids for MERS used a similar statistical approach and found no effect of corticosteroids on mortality but delayed LRT clearance of MERS-CoV (65). Given the lack of effectiveness and possible harm, routine corticosteroids should be avoided unless they are indicated for another reason. Other reasons may include exacerbation of asthma or COPD, septic shock, and risk/benefit analysis needs to be conducted for individual patients.

Remark 1: A recent guideline issued by an international panel and based on the findings of two recent large RCTs makes an additional recommendation for corticosteroids for all patients with sepsis (including septic shock) (66). Surviving Sepsis guidelines, written before these RCTs were reported, recommend corticosteroids only for patients in whom adequate fluids and vasopressor therapy do not restore hemodynamic stability (3). Clinicians considering corticosteroids for a patient with COVID-19 and sepsis must balance the potential small reduction in mortality with the potential downsides of prolonged shedding of coronavirus in the respiratory tract, as has been observed in patients with MERS (63). If corticosteroids are prescribed, monitor and treat hyperviscosity, hyperglycemia, and hypokalemia. Monitor for recurrence of inflammation and signs of adrenal insufficiency after stopping corticosteroids, which may have to be tapered. Because of the risk of secondary infections with steroid therapy, diagnosis of new infections should be considered in endemic areas if steroids are used (67).

Remark 2 for pregnant women: Who recommends maternal corticosteroid therapy for women at risk of preterm birth from 24 to 34 weeks of gestation when there is no clinical evidence of maternal infection, and adequate childbirth and newborn care is available. However, in cases where the woman presents with mild COVID-19, the clinical benefit of maternal corticosteroids might outweigh the risks of potential harm to the mother. In this situation, the balance of benefits and harms for the woman and the newborn needs to be discussed with the family, including the woman to ensure an informed decision, as this treatment may vary depending on the woman's clinical condition, her wishes and that of her family, and available health care resources (https://www.who.int/reproductivehealth/publications/maternal_pregnancy/pretterm birth/healthcare/en/).

Remark 3: WHO has prioritized the evaluation of corticosteroids in clinical trials to assess safety and efficacy (https://www.who.int/reprioritize-priority-diseases-and-collaborate-action/Global Research Forum FINAL VERSION for week 14 Feb 2020/figs/1=).
Maintaining Essential Health Services

When health systems are overwhelmed, both direct mortality from an outbreak and indirect mortality from vaccine-preventable and treatable conditions increase dramatically. Countries will need to make difficult decisions to balance the demands of responding directly to COVID-19, while simultaneously engaging in strategic planning and coordinated action to maintain essential health service delivery, mitigating the risk of system collapse.

Guiding principles for immunization activities during the COVID-19 pandemic

Interim guidance
26 March 2020

Due to the global circulation of the virus causing COVID-19 and the current pandemic, there is risk of disruption to routine immunization activities due to both COVID-19 related burden on the health system and decreased demand for vaccination because of physical distancing requirements or community reluctance. Disruption of immunization services, even for brief periods, will result in increased numbers of susceptible individuals and raise the likelihood of outbreak-prone vaccine preventable diseases (VPDs) such as measles. Such VPD outbreaks may result in increased morbidity and mortality predominantly in young infants and other vulnerable groups, which can cause greater burden on health systems already strained by the COVID-19 response. The high potential for VPD outbreaks makes it imperative for countries to maintain continuity of immunization services wherever services can be conducted under safe conditions. Prior disease outbreaks and humanitarian emergencies have underscored the importance of maintaining essential health services such as immunization, and effectively engaging communities in planning and service delivery. Yet the complexity and global reach of the COVID-19 response with respect to mandatory physical distancing (also referred to as social distancing) and economic impact on households is unprecedented for public health.
Maintaining Essential HIV Prevention and Contraception Services

- Learning from Ebola in West Africa: increased unplanned and teenage pregnancies during emergency response → unsafe abortions and AGYW morbidly
  - Prioritize continuation of contraception services
- Many HIV prevention activities likely to be paused or scaled down eg VMMC, community outreach activities.
- But condoms, harm reduction and methadone programmes need to continue with modifications
  - Delivery of supplies with social distancing through pharmacies
  - Larger supplies for longer time periods
- Continue to support HIV testing including through expanding access to self-testing
Differentiated HIV testing services (HTS) in COVID-19 Context

- It is important to support undiagnosed PLHIV to get tested and linked to ART
  - PLHIV, who do not know their status and are not ART and those with known risk factors (e.g. diabetes), who acquire a COVID-19 infection may be at risk of COVID-19 complications

- Safety of HTS providers needs to be ensured during testing procedures
  - practices including PPE, hand hygiene, respiratory hygiene, and physical distancing measures.
  - adaptations such as increased use of phone calls, digital tools (e.g. videos, websites, social media, text messages) and approaches like self-testing

- Considerations for prioritizing and adapting HTS programmes
  - Continuing ongoing critical clinical services (e.g. ANC, individuals with symptoms or conditions indicative of HIV or with related co-infections or other co-morbidities (e.g. TB, STIs, malnutrition), and EID of HIV-exposed children).
  - Partner/index/family testing to reach the partners of PLHIV presenting at facilities, as well ongoing key populations programmes; increasingly using phone calls
  - Increasing use of HIV self-testing (HIVST) and restricting/pausing community outreach in some settings
  - Maintain linkage and referrals to ART and condoms.
  - Key populations and other vulnerable groups who need HTS, as well as other comprehensive sexual health services, and social protection.
  - Monitor supply chain management as there may be increased risks of disruptions.

<table>
<thead>
<tr>
<th>Considerations for HIVST</th>
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</thead>
<tbody>
<tr>
<td>HIVST may be an acceptable alternative to maintain services while adhering to physical distancing guidance.</td>
</tr>
</tbody>
</table>

It is important to strategically implement HIVST prioritizing areas and populations with the greatest needs and gaps in testing coverage.

- HIV approaches include:
  - distribution for personal use and/or sexual and/or drug injecting partners of PLHIV and social contacts of key populations
  - In some high HIV burden settings, pregnant women may also provide HIVST kits to their male partners.

- Priority settings to consider
  - Pick up at facilities or community sites
  - Online platforms (e.g. websites, social media, digital platforms) and distribution through mail
  - Pharmacies, retail vendors, vending machines
Benefits of differentiated service delivery

6 monthly clinic visits improves retention in Zambia

Good adherence with 3 monthly clinic visits in Spain

Home delivery of ART feasible and improves outcomes in UK & Spain

3 monthly clinic visits reduces costs to patients and health system in Kenya and Uganda

**Benefits of differentiated service delivery**

**6 monthly clinic visits improves retention in Zambia**

Mody, Clin Inf Dis 2017

**Good adherence with 3 monthly clinic visits in Spain**

Munoz-Moreno, IAS 2016

**Home delivery of ART feasible and improves outcomes in UK & Spain**

Leon PlosONE 2011; Harte I J STD AIDS 2008

**3 monthly clinic visits reduces costs to patients and health system in Kenya and Uganda**

Thirumurthy, IAS 2016
WHO recommendations supporting DSD for clinically stable clients during COVID-19 (advise MMD & avoid group meetings)

**WHEN**
- 3-6 monthly ART refills
- 3-6 monthly clinic visits

**WHERE**
- ART maintenance at community level

**WHO**
- Trained non-physicians/nurses/midwives can initiate and maintain ART
- Trained/supervised lay providers can distribute ART
- Trained/supervised CHWs can dispense ART between clinic visits

3 April, 2020
HIV and COVID-19 Diagnostics considerations

- Three molecular technologies have US FDA emergency use authorization (undergoing WHO prequalification emergency use listing review) that are commonly used by HIV and TB programmes – Abbott m2000, Cepheid Xpert, Roche cobas 6800/8800
  - Of note, WHO is working with partners and manufacturers to try to support access to the SARS-CoV-2 tests on these platforms outside of the US and Western Europe (however, other alternatives such as manual or in-house assays should be considered in combination).
    - Guidance suggests serological testing can be considered for surveillance purposes, but not diagnosis.

- Maintain other critical molecular diagnostics, particularly:
  - Early infant diagnosis
  - Tuberculosis testing
  - Viral load testing for people living with advanced HIV disease; those suspected of failing treatment, including pregnant and breastfeeding women; infants, children, and adolescents.
COVID Surveillance and Health Information Systems

- WHO global COVID case reporting form and tools (Case-based reporting form)
  - HIV included as underlying condition and comorbidity
  - Currently ART status not collected
- HIV status not included in aggregate reporting, i.e. line list, but may be adapted at country level as appropriate (Template for Line list for case-based reporting)
- Health information system approaches:
  - Adapt existing national disease surveillance systems, e.g. IDSR including electronic IDSR
  - Adapt open-source tools such as Go Data (https://www.who.int/godata) and DHIS2 (https://www.dhis2.org/covid-19)
Regional Health Systems Response Monitor

https://www.covid19healthsystem.org/mainpage.aspx
Off-label use of medicines for COVID-19

Scientific brief

31 March 2020

No pharmaceutical products have yet been shown to be safe and effective for the treatment of COVID-19. However, a number of medicines have been suggested as potential investigational therapies, many of which are now being or will soon be studied in clinical trials, including the SOLIDARITY trial co-sponsored by WHO and participating countries.

In many countries, doctors are giving COVID-19 patients medicines that have not been approved for this disease. The use of licensed medicines for indications that have not been approved by a national medicines regulatory authority is considered “off-label” use. The prescription of medicines for off-label use by doctors may be subject to national laws and regulations. All health care workers should be aware of and comply with the laws and regulations governing their practice. Further, such prescribing should be done on a case-by-case basis. Unnecessary stockpiling and the creation of shortages of approved medicines that are required to treat other diseases should be avoided.

It can be ethically appropriate to offer individual patients experimental interventions on an emergency basis outside clinical trials, provided that no proven effective treatment exists; it is not possible to initiate clinical studies immediately; the patient or his or her legal representative has given informed consent; and the emergency use of the intervention is monitored, and the results are documented and shared in a timely manner with the wider medical and scientific community.

The decision to offer a patient an unproven or experimental treatment is between the doctor and the patient but must comply with national law. Where it is possible and feasible for the treatment to be given as part of a clinical trial, this should be done unless the patient declines to participate in the trial.

If it is not possible to give the treatment as part of a clinical trial, appropriate records of the use of the medicine must be kept, in compliance with national law, and outcomes for patients should be monitored and recorded.

If early results from an unproven or experimental treatment are promising, the treatment should be studied in the context of a formal clinical trial to establish its safety, efficacy, risks, and benefits.
COVID19 | Supply Chain Interagency Coordination Cell

Partners

The Cell is led by WHO and made of partners committed to leveraging and complementing their respective strengths to fight COVID19.
Enable an efficient and effective supply chain response across the community through the dissemination of information to support strategic guidance, operational decision-making, and overall monitoring.

**COVID19 | Supply Chain Interagency Coordination Cell**

**Workstreams – Enablers – Goal**

- **Supply and Demand**
  - Visibility over the supply and demand of critical items for COVID19 response: PPE, lab diagnostic and clinical equipment

- **Logistics and Access**
  - Up to date information about access and logistics constraints, availability of assets and services

- **Programme Continuity**
  - Flag disruptions to ongoing humanitarian and development programme

- **Scale up of Operations**
  - Provide visibility to the COVID19 response, identify gaps and appropriate actors to fill them and facilitate access to finance

- **Information Management & Advocacy**
  - Collect, analyze and disseminate the appropriate products through different platforms

- **Coordination**
  - Establish a main entry point for the COVID19 response to support informed decision making among partners

3 April, 2020
3 important points for Health system preparedness

• TRIAGE
• Space and Supplies
• Health care workers
COVID-19 Global Preparedness and Response Summary Measures
Data as of 16 March 2020

312 600 ENROLMENTS FOR COVID-19 COURSES ON OpenWHO

Outbreak specific:
- Introduction to COVID-19: 169,610 users available in 7 languages
- Health and safety in the context of respiratory infections: 19,270 users available in 4 languages

Interventions:
- Critical Care: 17,000 users available in 3 languages
- IPC: 75,910 users available in 4 languages
- Overcoming the supply chain: 30,840 users available in 1 language

Increasing the knowledge base: Country uptake of investigation protocols

Transmission dynamics and severity
- Intention confirmed: 28 countries (AFR 14, AMR 3, EMR 2, EUR 4, SEAR 0, WPR 5)
- Implementation started: 11 countries (AFR 2, AMR 1, EMR 0, EUR 4, SEAR 0, WPR 4)
- Progress shared with WHO: 4 countries (AFR 0, AMR 0, EMR 0, EUR 3, SEAR 0, WPR 1)

Clinical characterization for hospitalized cases
- Intention confirmed (0)
- Implementation started (0)
- Progress shared with WHO (0)
Progress update: COVID-19 Partners Platform
https://covid-19-response.org

Global level updates
- UNDCO (NY) interest for use in wider UN response
- World Bank piloting for specific countries

Region level updates
- Regional focal points engaged in AFRO, EURO, PAHO
- Ongoing on-boarding in EMRO, SEARO and WPRO

Country level updates
- Increasing engagement from countries
  - 25 countries participated in live demo sessions
  - 11 countries identified “Country Admins”
  - 3 countries actively using the Platform
- Increasing exposure in donor community
  - 22 donors from 12 countries registered
- Global support team involvement
  - 15-20 country coaching sessions planned per week

Main challenge:
- UN Country Teams to identify “Country Admins Users”
COVID-19 response in Africa

https://www.afro.who.int/health-topics/coronavirus-covid-19

African countries move from COVID-19 readiness to response as many confirm cases

The global community is racing to slow down and eventually halt the spread of COVID-19, a pandemic that has claimed thousands of lives and sickened tens of thousands of others. In Africa, the virus has spread to dozens of countries within weeks. Governments and health authorities across the continent are striving to limit widespread infections.
Africa’s capacity to respond to COVID-19

Number of Hospitals

Number of beds in ICU

Number of beds in Isolation Units

Legend

- WHO African Region
- Non WHO African Region
- No Reported
- Number of beds in ICU reported
- Number of beds in Isolation Units reported
WHO Health Alert brings COVID-19 facts to billions via WhatsApp

Updated 27 March 2020

WHO has launched a dedicated messaging service in Arabic, English, French and Spanish with partners WhatsApp and Facebook to help keep people safe from coronavirus. This easy-to-use messaging service has the potential to reach 2 billion people and enables WHO to get information directly into the hands of the people that need it.

From government leaders to health workers and family and friends, this messaging service provides the latest news and information on coronavirus including details on symptoms and how people can protect themselves and others. It also provides the
Addressing fear, stigma and discrimination

Engagement and information including through social media

WHO, UNICEF and IFRC issued guidance on risk communication and community engagement for COVID-19 preparedness and the response

Civil society and community engagement

Engagement facilitated through:

• UNAIDS Joint Programme
• Global Fund
• Global Action Plan for healthy lives and wellbeing
• UHC 2030
• Initiatives from communities and civil society

Issues:
• Coordination and content management
• Language and adaptation
COVID-19 summary messages

- Situation highly dynamic
- Real-time evidence and information sharing and coordination critical
- Clear learning from HIV, Ebola and other disease outbreaks
- Community engagement and rights have to inform the response
Extra slides
Questions

• Could HIV treatments (ART, for instance) be a key for finding a cure for COVID-19? (10)
• What do we know about COVID-19 in children? Are we expecting similarities for children living with HIV based on current experience/data? (4)
• Are there any special policies/protocols for positive pregnant women due to this pandemic?
• Are there special precautions needed to be taken for people living with HIV during this COVID-19 pandemic?
• How can we maintain the adherence of people living with HIV during these critical hours of national lockdown and social distancing?
• Our clients who are adolescents living with HIV want a simple explanation for why people with COVID-19 have no treatment but can get better. How can a virus just go away but HIV doesn’t?
• Where do people living with HIV who are diagnosed with comorbidities stand in this pandemic?
  • Is there anything specific to people who inject drugs?
  • Any reported increased risk of COVID-19 by hepatitis B patients?
• Any specific tools for psychosocial support to HIV patients focused upon Covid-19?
• Are medication or vaccine studies/trials for COVID-19 going to include persons living with HIV? How far are we on the research and development of a vaccine? Or of another specific treatment? (7)
• What data are available about COVID-19 among people living with HIV? Are surveillance systems being put in place in order to accurately monitor this evolving situation and quickly disseminate results?
• How can we best support adolescents and young people living with HIV?
## Personal Protective Equipment Shipments (as of 13 March)

<table>
<thead>
<tr>
<th>SHIPPED</th>
<th>Mask, Surgical</th>
<th>Mask, N95</th>
<th>Gloves, Examination</th>
<th>Gown</th>
<th>Goggles</th>
<th>Faceshield</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>26,700</td>
<td>7,400</td>
<td>52,300</td>
<td>8,013</td>
<td>680</td>
<td>2,710</td>
</tr>
<tr>
<td>PAHO</td>
<td>12,000</td>
<td>210</td>
<td>12,000</td>
<td>1,004</td>
<td>200</td>
<td>1,400</td>
</tr>
<tr>
<td>EMRO</td>
<td>154,000</td>
<td>12,420</td>
<td>304,000</td>
<td>43,072</td>
<td>2,400</td>
<td>10,000</td>
</tr>
<tr>
<td>EURO</td>
<td>109,080</td>
<td>2,450</td>
<td>109,100</td>
<td>15,300</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>SERO</td>
<td>260,000</td>
<td>24,715</td>
<td>160,000</td>
<td>14,000</td>
<td>5,250</td>
<td>6,500</td>
</tr>
<tr>
<td>WPRO</td>
<td>139,700</td>
<td>4,700</td>
<td>90,200</td>
<td>3,700</td>
<td>2,640</td>
<td>220</td>
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<tr>
<td>TOTAL</td>
<td>701,480</td>
<td>51,895</td>
<td>727,600</td>
<td>85,089</td>
<td>13,670</td>
<td>20,830</td>
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</table>

### SHIPPED: Regional Breakdown

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPRO</td>
<td>11</td>
<td>Cambodia, Fiji, Kiribati, Lao People’s Democratic Republic, Mongolia, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu</td>
</tr>
<tr>
<td>SEARO</td>
<td>9</td>
<td>Bangladesh, Bhutan, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste</td>
</tr>
<tr>
<td>EMRO</td>
<td>11</td>
<td>Afghanistan, Djibouti, Lebanon, Somalia, Pakistan, Sudan, Morocco, Iran, Jordan, Iraq and Tunisia</td>
</tr>
<tr>
<td>AFRO</td>
<td>24</td>
<td>Algeria, Angola, Benin, Cape Verde, Equatorial Guinea, Ethiopia, Gambia, Ghana, Guinea, Ivory Coast, Kenya, Madagascar, Mauritania, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, Seychelles, Tanzania, Togo, Uganda, Zambia and Zimbabwe</td>
</tr>
<tr>
<td>PAHO</td>
<td>1</td>
<td>Bolivia</td>
</tr>
<tr>
<td>EURO</td>
<td>12</td>
<td>Armenia, Bosnia and Herzegovina, Kazakhstan, Kosovo, Kyrgyzstan, Republic of Moldova, Montenegro, North Macedonia, Serbia, Tajikistan, Ukraine and Uzbekistan</td>
</tr>
<tr>
<td>TOTAL COUNTRIES</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>
COVID-19 Interventions for Points of Entry - Screening

- Entry screening at all PoEs (airports, seaports, ground crossing)
- Affected countries are encouraged to start exit screening
- Follow-up of travelers arriving from high risk areas
- Screening at the Point of Entry should be complemented by a robust national surveillance system to detect cases missed at the PoE

Overall score PoE readiness 70%