COVID-19
Guidelines for care of Children in Kenya
March 2020
The Process
To address the above issues, we undertook a desk review of available evidence.

online platform which enabled health care workers involved in child health to provide their input into the process and content
1. Background

2. Isolation Facilities for children in Health Institutions

3. Triaging children with RTI in OPDs

4. New Born Units & Kangaroo Mother Care Facilities

5. Routine POPCs

6. Routine Immunization Services
Background
- Spherical or pleomorphic enveloped particles

- containing single-stranded RNA associated with a nucleoprotein within a capsid comprised of matrix protein.

- The envelope bears club-shaped glycoprotein projections which attach on the host receptor surface – give crown like appearance of ‘corona’
How does COVID-19 spread?

The respiratory droplets from a cough or a sneeze can travel up to 6 feet (nearly 2 metres).
Droplets typically do not travel more than six feet (about two meters) and do not linger in the air.
They land on surfaces, things and places...
And then get passed on.....
Transmission and incubation period

1. The incubation period is thought to be within 14 days following exposure, with most cases occurring approximately four to five days after exposure.

2. Transmission from asymptomatic individuals (or individuals within the incubation period) has also been described.

3. SARS-CoV-2 RNA has been detected in blood and stool specimens though fecal-oral transmission did not appear to be a significant factor in the spread of infection.
Clinical features of patients with COVID-19

Common symptoms
- Headache
- Nasal congestion
- Sore throat
- Coughing up sputum
- Shortage of breath
- Pain in muscle or joints
- Chills
- Nausea/vomiting
- Diarrhea

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Study: Majority Of Coronavirus Cases Are Mild

COVID-19 case severity (as of February 11, 2020)

- **Mild**: 80.9%
- **Severe**: 13.8%
- **Critical**: 4.7%

n=44,672 confirmed COVID-19 cases in Mainland China
Source: Chinese Centre for Disease Control and Prevention
Patients who develop respiratory failure, septic shock and/or multiple organ dysfunction/failure (5%)

Fast breathing and/or chest in-drawing according to IMNCI guidelines (14%)

Cases without signs of lower respiratory tract disease (81%)

Cases not identified and not diagnosed (Unknown)

High Mortality
Where Evidence is Absent

Role of asymptomatic children in viral transmission

Faecal oral transmission
Given that the virus has been detected in stool

Why do children appear to be less frequently affected?

Recurrent exposure to respiratory viruses in children may give them some immunity to emerging new pathogens.

The less mature immune system may lead to less severe immune responses.

Less mature ACE2 receptors may reduce viral entry.
Should we have specific isolation facilities for children?
Available Evidence

Evidence suggests that isolation, handwashing and wearing of masks, gowns, and/or gloves may reduce transmission and/or infection by COVID-19.

Quarantine and isolation may, unfortunately increase the risk of post-traumatic stress disorders. Responses to these should be pre-empted.
Provisional Isolation requirements for facilities

1. All counties to identify *isolation facilities fit for children* including a play area.

2. The facility should have *all the Infection Prevention and Control (IPC) requirements* as set out in the national guidelines.*

3. It is desirable that this facility have in-built oxygen ports but if not available, there should be designated portable oxygen.

*See GUIDANCE FOR INFECTION PREVENTION AND CONTROL FOR CORONA VIRUS DISEASE IN HOMES AND RESIDENTIAL COMMUNITIES Interim Guidance March 18th 2020.*
### Procedure for isolation of children (suspected or confirmed)

<table>
<thead>
<tr>
<th>Status of Child</th>
<th>Care-Giver</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Well</strong> (clinically stable and suitable for outpatient management)</td>
<td>Well</td>
<td>Home isolation</td>
</tr>
<tr>
<td><strong>Unwell</strong> (meets criteria for inpatient care)</td>
<td>Well</td>
<td>Child and caregiver be kept in paediatric in-patient isolation facility</td>
</tr>
<tr>
<td><strong>Well</strong></td>
<td>Unwell</td>
<td>Home isolation for child with one alternative alternative caregiver who is provided with personal protection equipment</td>
</tr>
</tbody>
</table>
Triaging of children at OPDs
Should Children with RTI Be kept separate in OPDs?

Available evidence


2. The census report by international pulmonology working group (IPCG, 2020)

Recommend triaging of all children with Respiratory Tract infections (cough and fever) as mandatory
Provisional recommendations

1. All children with RTI symptoms at the point of triage to be kept in one area at least six feet away from the other children as they are processed rapidly for appropriate care.

2. Children with indrawing pneumonia as per Integrated Management of Childhood Illness should be prioritized for COVID-19 testing.

3. Screen and isolate all children with suspected COVID-19 as per the Case definitions.
Case Definition: Suspected COVID-19 Infection

1. Acute RTI with cough or fever or shortness of breath alongside absence of other probable cause or **history of travel/residence in a country/area reporting local or community transmission during the 14 days prior to symptom onset**

2. Acute RTI AND having been in **close contact with a confirmed or probable COVID-19 case in the last 14 days prior to onset of symptoms**

3. Severe acute RTI with fever + one sign/symptom of respiratory disease (cough, fever, shortness breath) and requiring hospitalisation (**SARI**) with no other probable cause fully explaining the clinical presentation.
Case definitions after suspected case

Probable Case

A suspected case for whom testing for virus causing COVID-19 is inconclusive (according to the test results reported by the laboratory) or for whom testing was positive on a pan-coronavirus assay.

Confirmed Case

A child with laboratory confirmation of virus causing COVID-19 infection, irrespective of clinical signs and symptoms.

Close Contact

As per general guidelines defining close contact.
New-Born Units & Kangaroo Mother Care Facilities
1. No vertical transmission has been documented.
2. From COVID-19 infected mothers: Amniotic fluid, cord blood, throat swabs of from their neonates have all tested negative.
3. Breastmilk samples from the mothers after the first lactation were also all negative
4. Caregivers and healthcare workers should remain cautious not to infect each other and babies
Infants born to mothers with suspected, probable or confirmed COVID-19 infection, should be breastfed while applying necessary precautions for IPC.

Symptomatic mothers who are breastfeeding or practising KMC should continue while practicing respiratory and environmental hygiene.

Breastfeeding counselling and basic psychosocial support should be provided to all pregnant women and mothers with infants and young children regardless of the COVID-19 status.

Whenever possible mothers should continue to breastfeeding or express regardless of their COVID-19 status with appropriate IPC precautions.
If mother too unwell to breastfeed or express breastmilk, appropriate breastmilk substitutes can be used.

Kangaroo mother care and rooming-in regardless of COVID-19 infection status.

Health workers with respiratory tract illness (regardless of COVID-19 infection status) should be exempted from duties in NBU till recovery.

Only one caregiver should be designated for the entire duration of admission in the NBU.

No visitors should be allowed the NBUs & trainee numbers should be drastically reduced in NBUs.
Paediatric Out-Patient-Departments
Is Change of Strategy Required POPCs?

Available Evidence

Minimizing the exposure by staying away from hospitals for non-urgent matters reduces transmission.

This is protective to the child but also reduces the overstretching of the health systems when cases surge.

This has been provided as a general guidance by the Royal College of Paediatrics and Child Health (RCPCH) in the UK (RCPCH, 2020) the US (CDC, 2019) and as a recommendation by the International Pulmonologist Consensus (IPCG, 2020).
Provisional recommendations

- Routine POPCs should be suspended
- Explore mechanisms for supplying meds for chronic patients
- Caregiver can collect medicines without child

If child is unwell

- One caregiver can bring child to paed emergency
- Minimal but adequate contact time

Infection control considerations

- Adequate PPE for HCWs
- Hand hygiene and disinfection of frequently touched surfaces and equipment
The Routine Immunization Program
Outbreaks disrupt routine immunisation (RI)

Available Evidence

1. During the 2014 Ebola outbreak in Sierra Leone the RI literally collapsed.
2. No measures were directed to protecting the RI during the outbreak.
3. Post-outbreak response was employed to ameliorate the coverage gaps

Overarching Issue

A fully vaccinated child is more likely to be protected from vaccine preventable diseases and possible complications of COVID-19
Provisional recommendations

1. Routine immunization services should continue countrywide with preferential use of smaller less crowded levels 2 and 3 facilities to reduce exposure of children and care givers.

2. High volume health facilities should also continue routine immunization. To minimize risk, these facilities should set up separate space akin to an out-reach post service.

3. As much as possible mothers should be given specific scheduled appointments for routine immunization.

4. Infants and caregivers coming for immunization services should be triaged for possible exposure and appropriately directed to a point of care.
Provisional recommendations-2

5. Community Health Workers should also be deployed to mobilize mothers to continue seeking immunization services.

6. Preparation for possible catch-up immunization activities upon the end of COVID-19 outbreak.

7. There should be continuous communication of these emergency immunization strategies at all levels.
References

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And what do we tell the children?
Most people who are infected with COVID-19 will only have a mild illness. They may have a high temperature, sore throat, a runny nose or a cough. So far there have not been many reported cases in children across the world.
COVID-19 is spread by droplets. That means you need to be very close to someone with COVID-19 who is coughing to become infected.

You can help protect yourself and others.
If you have a cough, difficulty breathing or fever you may have an infection. Do not worry. You need to try and avoid contact with other people. Children will usually not be unwell enough to need to come to hospital. You can be looked after at home. The helpline can give you support and advice while you are at home. Avoid going in to areas where the infection may be passed to other people who may become more seriously unwell. If your condition is worsening, call 0729471414 or 0732353535 for further guidance.
Some children will need to be tested for COVID-19 infection. The test is simple and painless. It is a swab of your nose and throat. Some children will need to stay in hospital for treatment. Other children will be able to go home and wait for the results while avoiding contact with other people.
The doctors who will look after you if you are unwell need to wear funny clothes to protect you, to protect them and to protect other people. They need to make sure they are not spreading any infections. They are just normal people under the funny masks and gowns.
Ok now lets suit up

Much simpler than this really....
Guidance on Wearing Personal Protective Equipment (PPE) to manage COVID-19 Patients

1. First put on special work clothes and work shoes
2. Wash hands
3. Put on a disposable surgical cap
4. Put on a medical protective mask (N95)
Guidance on Wearing Personal Protective Equipment (PPE) to manage COVID-19 Patients

5. Put on inner disposable nitrile/latex gloves
6. Put on goggles and protective clothing
7. Put on disposable latex gloves
8. Donning completed
Guidance on Removing Personal Protective Equipment (PPE) to manage COVID-19 Patients

1. Replace the outer gloves with new ones
2. Remove protective clothing along with outer gloves
3. Remove goggles
4. Remove mask
Guidance on Removing Personal Protective Equipment (PPE) to manage COVID-19 Patients

5. Remove cap

6. Remove inner disposable latex gloves

7. Removal Completed