Important data on COVID-19 profile in Africa

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Rationale

- Heterogeneous outcome and illness of COVID-19 have been reported from earlier affected countries (Cao et al 2020).
- To date little is known about what contributes to the diversity in disease pattern apart from age, and comorbidities such as diabetes, cardiovascular disorders and obesity (Jordan 2020).
- There is paucity information regarding Africa
- Need to generate important data on COVID-19 profile in Africa
Global COVID-19 Situation
as of 5:31 pm CEST 1 March 2021

Key: Country, area, or territory reporting COVID-19 cases
- >1M
- 100K-1M
- 10K-100K
- 1-100
- No Data

>113.8M
Confirmed cases
2.5M
Deaths
CFR: 2.2%

*Global numbers are taken from the latest WHO sitrep and dashboard:
COVID-19 Situation in Africa
as of 2 March 2021, 9am EAT

New COVID-19 cases* reported in Africa daily by AU Region from 15 February 2020 – 2 March 2021

- >3.9M cases
- >104K deaths
- CFR: 2.7%
- >3.4M recoveries
  (89%)

*Africa numbers are taken from official RCC and Member State reports.
What about COVID-19 in Africa?

- Poor and weak health care system.
- Difficulty in applying social distancing.
- Lack of water for hand washing.
- High population density (urban areas, households,...).
- Young population.
- High communicable diseases (infectious diseases).
- Less non-communicable diseases (although they are increasingly becoming a major concern).
Objectives

• Determine the clinical outcome of COVID-19 infection in three African countries, including Ethiopia, Gabon and Senegal.

• Determine the pattern of virus transmission and infection in households of confirmed cases.

• Map the factors associated with COVID-19 infection and disease progression.

• Scale-up capacity for cases and household contacts studies.

• Establish a biobank.
Study design and sample size

Prospective longitudinal, observational study of COVID-19 hospitalized patients as well as their household contacts in three urban areas in West (Dakar, Senegal), Central (Libreville & Lambaréné, Gabon) and East (Addis Ababa, Ethiopia) Africa.

Inclusion and exclusion criteria

Inclusion criteria

• Patient with a positive molecular PCR test for SARS-COV2
• Household contacts of index cases (if tested positive, the household contact becomes him/herself an index case)
• Provided signed informed consent

Exclusion criterion

• Pregnancy

A total of 90 COVID-19 positive cases and 180 household contacts to be included.
Progress made

• Protocol finalised and approved by the respective IRB from each country.

• Authorisation gained from National authorities including MoH and the Covid management board wherever applicable.

• Training on different aspects of studies were conducted remotely.

• Procurement of consumables and reagents were completed.

• Healthcare worker sensitisations as well as community and stakeholder
Activities with substantial delay due to COVID-19
Progress report (as of March 12th 2021)

• Ethiopia
  - 16 index cases, 5 household contacts.

• Gabon
  - 74 index cases, 36 household contacts
    - CERMEL: 25 index cases, 25 household contacts.
    - DPM-USS: 49 index cases, 21 household contacts.

• Senegal
  - 37 Index cases, 190 household contacts.

Samples collected: Swabs (naso/oropharyngeal), nasosorption, nasal scrapes, blood, urine stool
Main challenges and difficulties at the sites

- Reluctance of household contacts of Covid-19 positive cases to participate in the study:
  - Prejudices, stigmatization of people having when study nurses visit their home.
  - The fear of COVID 19 exposure when they come to health facilities

  **The exact reasons will be recorded in the KAP study that we are conducting in parallel.**

- Technical difficulty in collecting nasal scrap samples:
  - Study participants find the nasosorption and nasal scrapes techniques unpleasant.
  - Therefore, they don’t give samples.

- Training of study teams for nasosorption and nasal scrapes:
  - Due to travel restrictions, trainings are organized remotely.
  - On-site training would certainly improve these results.
On behalf of the consortium members, thank you for your attention!

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