



**ORGANISMO ANDINO DE SALUD  
CONVENIO HIPÓLITO UNANUE**

**WEBINAR**

# Investigación en COVID-19: Retos para la región Andina

**No  
bajemos  
la guardia**

# Clinical Epidemiology Working Group



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- Setting up a list of research priorities for resource limited settings.  
(methods – results paper)
- Making a “qualitative synthesis” of challenges in conducting research in resource-limited settings (capacities, new initiatives, big failures/successes)
- Bringing new ideas – contacts for facilitating clinical research.

# Working group members



Name	Country
Chirag Bavishi	USA
Anna Mia Ekström	Sweden
Shai Linn	Israel
Giordano Pérez-Gaxiola	México
Mario Tristan	Costa Rica
German Malaga	Peru
Paul Yonga	Kenya

Name	Country
Richard Ssekitoleko	Uganda
Jean-Francois Etard	Francia
Agustin Ciapponi	Argentina
Stellah Mpagama	Tanzania
Juan Carlos Villar (co –chair)	Colombia
Christopher Moore (co -chair)	USA
Luz Angela Torres (coordinator)	Colombia

# Prioritizing research questions

- **General framework to phrase the questions** (research setting, problem, generic question).
- **Delphi-like method**
  - **Item generation:** 13-question input from committee leaders => open to editions/additions
  - **Survey 1<sup>st</sup> round:**
    - 13 questions under the proposed framework in different areas (primary prevention, diagnosis, prognosis) were scored by relevance for resource limited settings.
    - 6 questions discarded - 4 new questions proposed.
  - **Survey 2<sup>nd</sup> round**
    - 11 questions included, ranked again by relevance.
- **Selection of five “final” questions**
- **Presentation to the steering committee: inclusion of one more question.**
- **Final list of six research priorities.**
  - Transforming “narrative” questions into a PICO format.



# Selected (narrative) questions

1. What clinical findings (signs, symptoms, biomarkers and imaging) are associated with a worse prognosis in COVID-19?

2. What signs and symptoms could confirm the clinical diagnosis of COVID-19?

3. What is the best strategy to achieve treatment goals in patients with NCDs during the pandemic?

4. What is the COVID-19 Infection Fatality Rate in low and middle countries +/- stratified by age?

5. What is the excess mortality non-COVID-19 in LMIC during the pandemic?

6. What are the short/mid and long term post-infectious sequelae in COVID-19?

# Selected questions (PICO format)

«Narrative» question	Population/Patient /Problem	Exposure(s) / Intervention(s)	Comparison(s)	Outcome(s)
<b>1. What clinical findings (signs, symptoms, biomarkers and imaging) are associated with a worse prognosis in COVID-19?</b>	Outpatients with clinical suspicion of COVID-19  Mild to moderate COVID-19	Clinical findings: e.g. fever, headache, cough, dyspnea, chest pain, abdominal pain, diarrhea, pulse oximetry.  Vital signs: e.g. respiratory rate, heart rate, body temperature, blood pressure.  Markers of comorbidities: e.g HT, DM, hyperglycemia.  Biomarkers: e.g. white-cell count.  Imaging findings (CT vs radiograph): ground-glass opacity (GGO), local patchy shadowing, bilateral patchy shadowing, interstitial abnormalities.	Absence of findings.  Number/ combination of findings	Admission to hospital (and associated clinical events during hospitalization)  Progression to severe COVID-19
	Patients admitted to the hospital with clinical suspicion of COVID-19	Clinical findings: e.g. fever, headache, cough, dyspnea, chest pain, abdominal pain, diarrhea.  Biomarkers: e.g. albumin, ALT, AST, creatinine, white-cell count, consider: ferritin, troponin, BNP, procalcitonin, D-dimer  Imaging findings (CT vs radiograph): ground-glass opacity (GGO), local patchy shadowing, bilateral patchy shadowing, interstitial abnormalities.	Absence of findings  Number/ combination of findings	Any of the following: ICU admission Mechanical ventilation In-hospital death Re-admission to hospital Death (30/ 90 day) Quality of life (90 day)

## Selected questions (PICO format)

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<b>2. What signs and symptoms could confirm the clinical diagnosis of COVID-19?</b>	Outpatients with clinical suspicion of COVID-19	<p>History of (home, social) contact with a confirmed/suspected case of SARS-CoV-2 infection.</p> <p>Vital signs: e.g. respiratory rate, heart rate, body temperature, blood pressure.</p> <p>Clinical findings: e.g. fever, headache, cough, dyspnea, chest pain, abdominal pain, diarrhea, pulse oximetry</p>	<p>Absence of findings</p> <p>Number/composition of findings</p> <p>Accepted gold standard (e.g. imaging findings + clinical diagnosis + RT-PCR)</p>	Laboratory diagnosis of COVID-19 (sensitivity, specificity)

# Selected questions (PICO format)

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<b>3. What is the best strategy to achieve treatment goals in patients with NCDs during the pandemic?</b>	<p>Patients with NCDs</p> <p>*NCDs including hypertension, diabetes, hypercholesterolemia.</p>	<p>Educational strategies: printed materials, handouts, online campaigns, text messages.</p> <p>Health services interventions: follow up-appointments, telehealth, incentives for improving adherence/ achieving treatment goals.</p> <p>Patients with NCDs with multidisciplinary team approach to treatment and targeted treatment for comorbidities.</p>	<p>No interventions</p> <p>Combination of different interventions.</p> <p>Patients with NCDs receiving standard of care at a health facility</p>	<p>Achieving treatment goals in the included health conditions (e.g. use of clinically meaningful endpoints, blood pressure control, glycemic control)</p>
	<p>Patients with NCDs and probable/confirmed COVID-19 infection and admitted</p>	<p>Educational strategies: printed materials, handouts, online campaigns, text messages.</p> <p>Health services interventions: follow up-appointments, telehealth, incentives for improving adherence/ achieving treatment goals.</p> <p>Patients with COVID-19 and NCDs with multidisciplinary team approach to treatment and targeted treatment for comorbidities</p>	<p>No interventions</p> <p>Combination of different interventions.</p> <p>Patients with COVID-19 and NCDs receiving standard of care at a health facility.</p>	<p>Achieving treatment goals in the included health conditions (e.g. use of clinically meaningful endpoints, blood pressure control, glycemic control)</p>

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<p><b>4. What is the COVID-19 Infection Fatality Rate in low and middle countries +/- stratified by age?</b></p>	<p>Reported or confirmed cases in the area under study.</p> <p>Patients with probable/ confirmed COVID-19 infection</p> <p>Population based cohort study of patients with the standardized definition of exposure</p>	<p>Age different categories and confounder variables such as sex, comorbidities, BMI, smoking, alcoholism, ICU admission.</p>	<p>Age different categories</p>	<p>Death:</p> <p>In hospital</p> <p>30-day</p> <p>90-day</p>

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<b>5. What is the excess mortality non-COVID-19 in LMIC during the pandemic?</b>	Global or regional population under study	<p>Non-COVID deaths during the pandemic in LMIC countries</p> <p>Overall mortality during the pandemic</p>	<p>Non-COVID deaths during the pandemic in high -income countries</p> <p>Overall mortality during previous periods (historical comparator)</p>	Excess of non-COVID deaths during the observation period

# Selected questions (PICO format)

«Narrative» question	Population/Patient /Problem	Exposure(s) / Intervention(s)	Comparison(s)	Outcome(s)
<p><b>6. What are the short/mid and long term post-infectious sequelae in COVID-19?</b></p>	<p>Pediatric and adult population</p>	<p>Confirmed SARS-CoV-2 infection</p> <p>Comorbidities</p> <p>Admitted to CTU</p> <p>Severe disease</p>	<p>Negative for SARS-CoV-2 infection</p> <p>No comorbidities</p> <p>Home based care</p> <p>Mild disease</p>	<p>Short / mid/ long term post-infectious sequelae (manifestations) at:</p> <ul style="list-style-type: none"> <li>· 30 days</li> <li>· 3 months</li> <li>· 6 months</li> </ul> <p>Including:</p> <p>Cardio- respiratory sequelae</p> <ul style="list-style-type: none"> <li>· 6-minute walk test (6MWT)</li> <li>· Left ventricular dysfunction</li> </ul> <p>Lung function, for adults</p> <p>Metabolic sequelae DM?</p> <p>Quality of life</p> <p>Absenteeism from school/work</p> <p>MIS-C</p>