

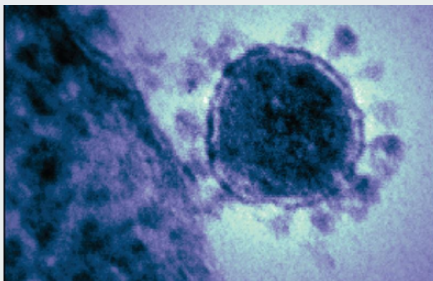
COVID-19

WEBINAR 28 MAYO



semFYC

Sociedad Española de Medicina
de Familia y Comunitaria



COVID-19

SARS-CoV-2

José María Molero García
GdT Enf. Infecciosas semFYC, SoMaMFyC

Javier Arranz Izquierdo
GdT Enf. Infecciosas semFYC, Ibamfyc

Jesús Redondo Sánchez
GdT Enf. Infecciosas SoMaMFyC

THE RACE FOR CORONAVIRUS VACCINES

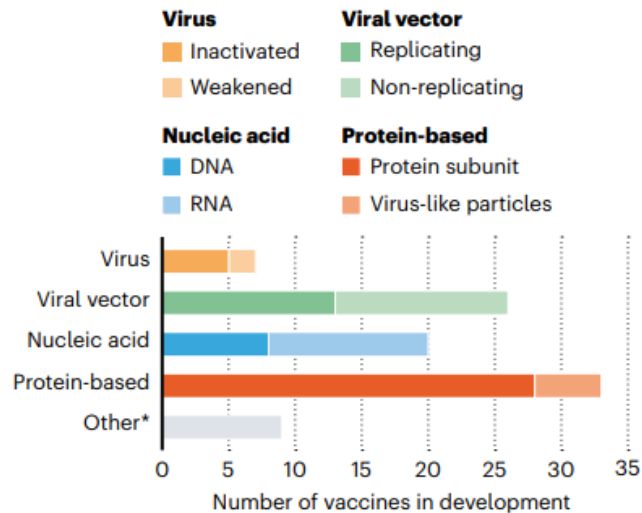
By Ewen Callaway;
design by Nik Spencer.

More than 90 vaccines are being developed against SARS-CoV-2 by research teams in companies and universities across the world. Researchers are trialling different technologies, some of which haven't been used in a licensed vaccine before. At least six groups have already begun injecting formulations into volunteers in safety trials; others have started testing in animals. *Nature's* graphical guide explains each vaccine design.

VACCINE BASICS: HOW WE DEVELOP IMMUNITY

AN ARRAY OF VACCINES

All vaccines aim to expose the body to an antigen that won't cause disease, but will provoke an immune response that can block or kill the virus if a person becomes infected. There are at least eight types being tried against the coronavirus, and they rely on different viruses or viral parts.



* Other efforts include testing whether existing vaccines against poliovirus or tuberculosis could help to fight SARS-CoV-2 by eliciting a general immune response (rather than specific adaptive immunity), or whether certain immune cells could be genetically modified to target the virus.

Callaway E. The race for coronavirus vaccines: a graphical guide. Eight ways in which scientists hope to provide immunity to SARS-CoV-2 . *Nature*, 2020: 580: 576-7

DRAFT landscape of COVID-19 candidate vaccines

27 May 2020



10 candidate vaccines in clinical evaluation

Platform	Type of candidate vaccine	Developer	Coronavirus target	Current stage of clinical evaluation/regulatory status- Coronavirus candidate	Same platform for non-Coronavirus candidates
Non-Replicating Viral Vector	ChAdOx1-S	University of Oxford/AstraZeneca	SARS-CoV2	Phase 2b/3 2020-001228-32 Phase 1/2 2020-001072-15	MERS, influenza, TB, Chikungunya, Zika, MenB, plague
Non-Replicating Viral Vector	Adenovirus Type 5 Vector	CanSino Biological Inc./Beijing Institute of Biotechnology	SARS-CoV2	Phase 2 ChiCTR2000031781 Phase 1 ChiCTR2000030906	Ebola
RNA	LNP-encapsulated mRNA	Moderna/NIAID	SARS-CoV2	Phase 2 (IND submitted)	multiple candidates

115 candidate vaccines in preclinical evaluation

Platform	Type of candidate vaccine	Developer	Coronavirus target	Current stage of clinical evaluation/regulatory status- Coronavirus candidate	Same platform for non-Coronavirus candidates
DNA	DNA Vaccine (GX-19)	Genexine Consortium	SARS-CoV2	Pre-Clinical	
DNA	DNA with electroporation	Karolinska Institute / Cobra Biologics (OPENCORONA Project)	SARS-CoV2	Pre-Clinical	

WHO documents detail/Draft landscape of COVID-19 candidate vaccines: Draft landscape of COVID-19 candidate vaccines.

27 May 2020

Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis



www.thelancet.com Published online May 22, 2020 [https://doi.org/10.1016/S0140-6736\(20\)31180-6](https://doi.org/10.1016/S0140-6736(20)31180-6)

Mandeep R Mehra, Sapan S Desai, Frank Ruschitzka, Amit N Patel

Análisis de los datos de **671 hospitales (total n = 96.032; 14.888 que recibieron hidroxiclороquina o cloroquina ± macrólido)** no pudo confirmar ningún beneficio de estos medicamentos;

Un comentario relacionado señala que, **a pesar de las limitaciones inherentes a la naturaleza observacional de este estudio, fue bien diseñado y controlado, y los resultados sugieren una ausencia de beneficios de la hidroxiclороquina y la cloroquina, y que incluso podrían ser dañinos.**

Los **autores señalan** que es tentador atribuir el mayor riesgo de muerte a la mayor incidencia de arritmia inducida por fármacos, sin embargo, **el número de muertes en el grupo de tratamiento fue mucho mayor que el número de pacientes con arritmia.** Dicen que otra hipótesis para explicar el mayor riesgo de muerte es que sus propiedades antivirales e inmunomoduladoras podrían empeorar la gravedad de COVID-19 en algunos pacientes.

Singh AK, Singh A, Shaikh A, Singh R, Misra A. Chloroquine and hydroxychloroquine in the treatment of COVID-19 with or without diabetes: A systematic search and a narrative review with a special reference to India and other developing countries. *Diabetes Metab Syndr.* 2020;14(3):241-246. doi:10.1016/j.dsx.2020.03.011



Original Article

“Hydroxychloroquine in patients with COVID-19: A Systematic Review and meta-analysis.”

Awadhesh Kumar Singh ^{a,*}, Akriti Singh ^b, Ritu Singh ^c, Anoop Misra ^d^a Diabetes & Endocrinology, G.D Hospital & Diabetes Institute, Kolkata, West Bengal, India^b College of Medicine and JNM Hospital, Kalyani, Nadia, West Bengal, India^c Gynaecology & Obstetrics, G.D Hospital & Diabetes Institute, Kolkata, West Bengal, India^d Fortis C-DOC Hospital for Diabetes and Allied Sciences, New Delhi, India

5. Conclusions

While no benefit on viral clearance demonstrated by HCQ compared to the control in patients with COVID-19, a significant 2-fold increase in mortality with the HCQ warrants its use if at all, with an extreme caution, until the results from larger randomized controlled trials are available.

Singh AK, Singh A, Singh R, Misra A. "Hydroxychloroquine in patients with COVID-19: A Systematic Review and meta-analysis. *Diabetes Metab Syndr.* 2020;14(4):589-596. doi:10.1016/j.dsx.2020.05.017

RT-PCR negativity with HCQ vs. Control in COVID-19: A Meta-analysis (N=210)

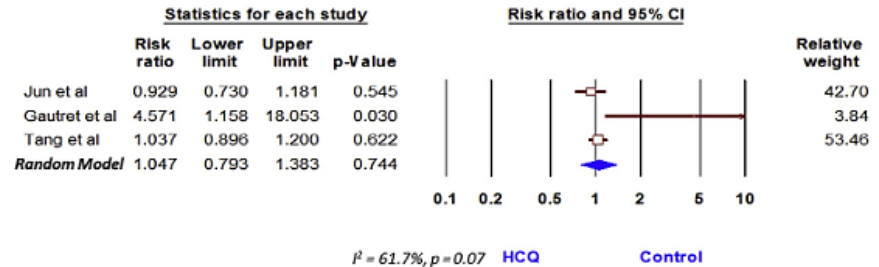
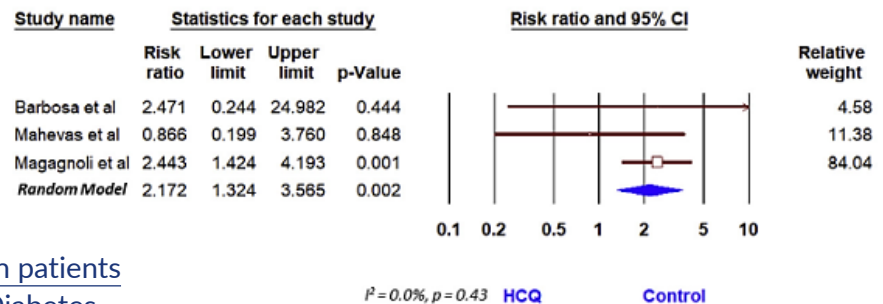


Fig. 2. RT-PCR negativity with HCQ vs Control in COVID-19: A meta analysis (N = 210).

Death with HCQ vs. Control in COVID-19: A Meta-analysis (N=474)



Hydroxychloroquine in COVID-19: A systematic review and meta-analysis

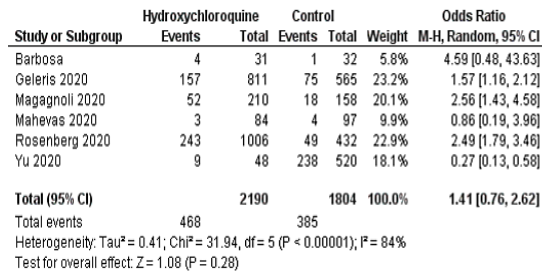
Jose Chacko, Gagan Brar, Robert Premkumar

doi: <https://doi.org/10.1101/2020.05.14.20101774>

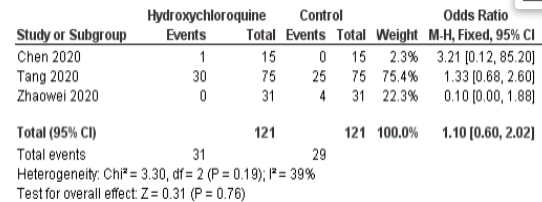
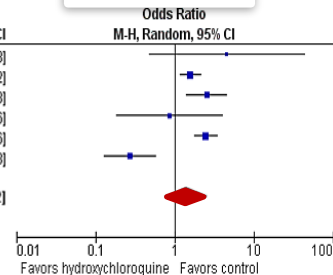
This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

N= 11 estudios (2 ECA y 8 estudios observacionales)

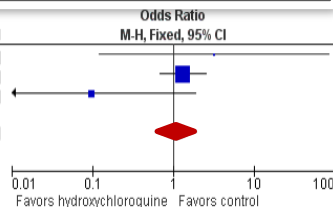
El metaanálisis **no sugiere una mejora en la progresión clínica, la mortalidad o la eliminación viral por RT-PCR** entre pacientes con infección por COVID-19 que son tratados con HCQ. Hubo una **incidencia significativamente mayor de eventos adversos** con el uso de HCQ



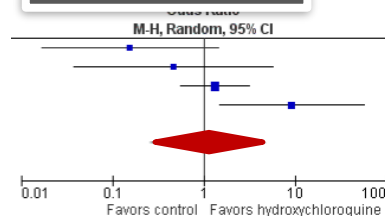
Mortalidad



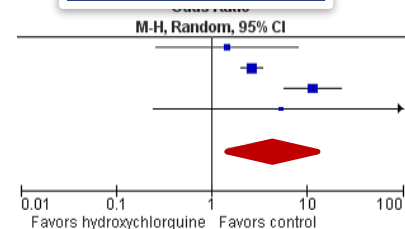
Empeoramiento clínico



Aclaramiento viral



Efectos adversos





Participation in Solidarity

Over **400 hospitals in 35 countries** are actively recruiting patients and nearly **3500 patients** have been enrolled from 17 countries.

Overall, over 100 countries have joined or expressed an interest in joining the trial, and WHO is actively supporting 60 of them with:

Adultos (edad ≥ 18 años) hospitalizados recientemente o ya en el hospital, con COVID-19 confirmado y, según el médico responsable, no existe ninguna contraindicación a ninguno de los tratamientos del estudio. Se asignará al azar entre :

- **Atención clínica local estandariza**

O cuidados locales y uno de los siguientes fármacos:

- **Remdesivir**
- **Lopinavir/Ritonavir**
- **Lopinavir/Ritonavir with Interferon beta-1a**
- **Hydroxychloroquine.**

WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov/solidarity-clinical-trial-for-covid-19-treatments>