

Global HCQ/CQ studies

September 6, 2021

@CovidAnalysis

Database of all HCQ COVID-19 studies. 344 studies, 250 peer reviewed, 281 comparing treatment and control groups. HCQ is not effective when used very late with high dosages over a long period (RECOVERY/SOLIDARITY), effectiveness improves with earlier usage and improved dosing. Early treatment consistently shows positive effects. Negative evaluations typically ignore treatment time, often focusing on a subset of late stage studies. *In Vitro* evidence made some believe that therapeutic levels would not be attained, however that was incorrect, e.g. see [Ruiz]. Submit updates/corrections.

Aug 28	Early...	Covid Analysis (... meta-analysis v142	HCQ for COVID-19: real-time meta analysis of 281... Details • 97% of the 31 early treatment studies report a positive effect (13 statistically significant in isolatio...
Aug 25	Early	Rodrigues et al., ... hosp., ↑200.0%, p=...	Hydroxychloroquine plus azithromycin early treat... Details RCT 84 low risk patients, 42 treated with HCQ/AZ, showing no significant differences. There was o...
Aug 25	PrEP	Naggie et al., me... symp. case, ↓23.5...	Hydroxychloroquine for pre-exposure prophylaxis ... Details RCT 1,360 healthcare workers in the USA showing OR 0.75 [0.49-1.15] for confirmed or suspected ...
Aug 24	PrEP	Patil et al., Resea... death, ↓65.9%, p=0...	A Prospective Longitudinal Study Evaluating The L... Details Prospective study of 9,212 autoimmune rheumatic disease patients showing lower mortality with ...
Aug 10	PEP	Shabani et al., Pu... symp. case, ↓19.0...	Evaluation of the Prophylactic Effect of Hydroxyc... Details Small PEP trial with 51 HCQ patients, not showing a significant difference in cases. IRCT20130917...
Aug 5	Meta	Stricker et al., Jo... death, ↓75.0%, p<0...	Hydroxychloroquine Pre-Exposure Prophylaxis for... Details Meta analysis of 11 HCQ PrEP studies in India covering 7,616 healthcare workers, showing signific...
Aug 4	Late	Özuygur Ermiş et al., Turkish Journal of Me...	The Efficacy of Hydroxychloroquine and Azithrom... Details Retrospective 370 hospitalized patients, 222 receiving HCQ+AZ and 148 receiving HCQ, showing m...
Aug 4	PrEP	Bhatt et al., med... cases, ↑49.3%, p=0...	Hydroxychloroquine Prophylaxis against Coronavi... Details Observational study of 927 low-risk healthcare workers in India, 731 volunteering for weekly HCQ pr...

Aug 4	Late	<i>Alghamdi et al., ...</i>	death, ↑39.2% , p=0...	Clinical characteristics and treatment outcomes o...
	Details	Retrospective 171 ICU patients in Saudi Arabia showing no significant difference for HCQ treatmen...		
Jul 31	Late	<i>Barra et al., med...</i>	death, ↓10.8% , p=1...	COVID-19 in hospitalized patients in 4 hospitals in...
	Details	Retrospective 668 hospitalized patients in Argentina, 18 treated with HCQ, not showing a significan...		
Jul 29	Early	<i>Sobngwi et al., m...</i>	no recov., ↓51.6% , ...	Doxycycline is a safe alternative to Hydroxychloro...
	Details	RCT 194 mild/asymptomatic low-risk patients in Cameroon, 97 treated with HCQ+AZ and 97 treate...		
Jul 13	Late	<i>Barrat-Due et al., ...</i>	death, ↑120.0% , p=...	Evaluation of the Effects of Remdesivir and Hydro...
	Details	Small RCT in Norway with 52 HCQ and 42 remdesivir patients, showing no significant differences w...		
Jul 10	Late	<i>Roger et al., Ana...</i>	death, 0.0% , p=0.94	French Multicentre Observational Study on SARS-...
	Details	Prospective study of 966 ICU patients in France, 289 treated with HCQ, showing no significant diffe...		
Jul 6	Late	<i>Jacobs et al., Th...</i>	death, ↓6.6% , p=0.74	Multi-institutional Analysis of 200 COVID-19 Patie...
	Details	Prospective study of 200 ECMO patients showing no significant difference in unadjusted results for...		
Jun 30	Late	<i>Taieb et al., J. Cli...</i>	no disch., ↓38.7% , ...	Hydroxychloroquine and Azithromycin Treatment ...
	Details	Retrospective 926 patients in Senegal, 674 treated with HCQ+AZ, showing significantly higher hosp...		
Jun 24	Late	<i>Gerlovin et al., A...</i>	death, ↑22.0% , p=0...	Pharmacoepidemiology, Machine Learning and C...
	Details	Retrospective 1,769 hospitalized patients in the USA showing no significant differences for HCQ, a...		
Jun 21	In Sil...	<i>Yadav et al., Research Square, doi:10.2120...</i>		Repurposing the Combination Drug of Favipiravir, ...
	Details	<i>In Silico</i> study showing stronger inhibition of SAR-CoV-2 for HCQ+favipiravir+oseltamivir compared ...		
Jun 18	Late	<i>Schwartz et al., ...</i>	ICU, ↑133.3% , p=1.00	Assessing the efficacy and safety of hydroxychlor...
	Details	Small early terminated late treatment RCT not showing significant differences. The HCQ group was...		
Jun 18	In Vit...	<i>Purwati et al., PL...</i>	<i>in vitro</i>	An in vitro study of dual drug combinations of anti...
	Details	<i>In Vitro</i> study of combinations of drugs showing antiviral efficacy of HCQ alone and in combination ...		
Jun 17	Late	<i>Turrini et al., Vac...</i>	death, ↓9.8% , p=0.15	Clinical Course and Risk Factors for In-Hospital M...
	Details	Retrospective 205 patients in Italy, 160 treated with HCQ, showing lower mortality with treatment in...		
Jun 9	Late	<i>Saib et al., PLOS ...</i>	int./death, ↑125.0% ...	Lack of efficacy of hydroxychloroquine and azithr...
	Details	203 hospitalized patients in France, not showing significant differences with treatment. Confoundin...		

Jun 8	Late	<i>Singh et al., med...</i>	death, ↓47.5%, p=0....	Safety and efficacy of antiviral therapy alone or in ...
	Details	Very small early terminated RCT in India, showing lower mortality but without statistical significanc...		
Jun 7	PrEP	<i>Badyal et al., Jou...</i>	cases, ↓60.1%, p<0....	Hydroxychloroquine for SARS CoV2 Prophylaxis i...
	Details	Prophylaxis study with 12,089 Indian healthcare workers, showing lower risk of COVID-19 cases wit...		
Jun 4	Late	<i>Lagier et al., Pre...</i>	death, ↓32.0%, p=0....	Outcomes of 2,111 COVID-19 hospitalised patient...
	Details	Retrospective 2,011 hospitalized patients in France, median age 67, showing lower mortality with H...		
Jun 4	Late	<i>Byakika-Kibwika ...</i>	recov. time, 0.0%, p...	Safety and Efficacy of Hydroxychloroquine for Tre...
	Details	Small 105 patient RCT in Uganda showing no significant differences. No mortality was reported. Th...		
Jun 3	Late	<i>Sivapalan et al., ...</i>	death, ↓92.0%, p=0....	Azithromycin and hydroxychloroquine in hospitali...
	Details	Early terminated late stage (8 days from onset, 59% on oxygen) RCT not showing statistically signifi...		
Jun 1	PrEP	<i>Korkmaz et al., A...</i>	death, ↓82.1%, p=0....	The effect of Hydroxychloroquine use due to rheu...
	Details	Retrospective 683 patients in a rheumatology department, 384 chronic HCQ users and 299 control ...		
Jun 1	PrEP	<i>Kamstrup et al., l...</i>	hosp., ↑44.0%, p=0....	Hydroxychloroquine as a primary prophylactic ag...
	Details	Retrospective HCQ users in Denmark, not showing a significant difference, however authors do not...		
May 31	Late	<i>Ramírez-García ...</i>	death, ↓67.0%, p<0....	Hydroxychloroquine and Tocilizumab in the Treat...
	Details	Retrospective 403 hospitalized patients in Spain, showing lower mortality with treatment, however ...		
May 31	Late	<i>Smith et al., med...</i>	death, ↓27.2%, p<0....	Observational Study on 255 Mechanically Ventilat...
	Details	Retrospective 255 mechanical ventilation patients in USA, showing that weight-adjusted HCQ+AZ i...		
May 29	Dosi...	<i>Ali et al., Journal ...</i>	dosing study	Optimizing the Use of Hydroxychloroquine in the ...
	Details	Review of the mechanisms of action, pharmacokinetics and toxicity of HCQ, recommending use as...		
May 27	Early	<i>Million et al., Pre...</i>	death, ↓83.0%, p=0....	Early Treatment with Hydroxychloroquine and Azit...
	Details	Retrospective 10,429 outpatients in France, 8,315 treated with HCQ+AZ a median of 4 days from sy...		
May 17	PrEP	<i>Syed et al., medR...</i>	symp. case, ↑59.7...	Pre-Exposure Prophylaxis with Various Doses of ...
	Details	Small PrEP RCT of low risk patients, showing no significant differences. Authors report that there w...		
May 16	PrEP	<i>Rojas-Serrano et...</i>	symp. case, ↓82.0...	Hydroxychloroquine For Prophylaxis Of COVID-19 ...
	Details	Early terminated HCQ PrEP RCT with 62 HCQ and 65 placebo patients, showing 82% lower cases w...		

May 12	Early Details	<i>Drancourt et al., Viruses, doi:10.3390/v130...</i>		SARS-CoV-2 Persistent Viral Shedding in the Cont...
May 10	Late Details	<i>Sammartino et a...</i>	death, ↑240.0%, p=...	Predictors for inpatient mortality during the first w...
May 8	Revi... Details	<i>Vigbedor et al., J...</i>	review	Review of four major biomolecular target sites for...
May 7	Late Details	<i>De Rosa et al., J. ...</i>	death, ↓35.0%, p=0...	Risk Factors for Mortality in COVID-19 Hospitalize...
Apr 30	Late Details	<i>Bosaeed et al., In...</i>	death, ↓3.7%, p=0.91	Favipiravir and Hydroxychloroquine Combination ...
Apr 29	Late Details	<i>Aghajani et al., J...</i>	death, ↓19.5%, p=0....	Decreased In-Hospital Mortality Associated with ...
Apr 28	Late Details	<i>Kokturk et al., Re...</i>	death, ↑3.8%, p=0.97	The predictors of COVID-19 mortality in a nationw...
Apr 27	Late Details	<i>Réa-Neto et al., S...</i>	death, ↑57.0%, p=0....	An open-label randomized controlled trial evaluati...
Apr 26	Late Details	<i>Mohandas et al., ...</i>	death, ↑81.0%, p=0....	Clinical review of COVID-19 patients presenting to...
Apr 23	Late Details	<i>Toya et al., SSRN (Preprint)</i>		A Cross-Country Analysis of the Determinants of ...
Apr 22	Late Details	<i>Reis et al., JAMA...</i>	death, ↓66.0%, p=1....	Effect of Early Treatment With Hydroxychloroquin...
Apr 15	PrEP Details	<i>Alzahrani et al., ...</i>	death, ↓58.8%, p=1....	Clinical characteristics and outcome of COVID-19 ...
Apr 15	PrEP Details	<i>Alegiani et al., R...</i>	death, ↑8.0%, p=0.64	Risk of COVID-19 hospitalization and mortality in r...

Apr 14	PEP Details	Seet et al., Intern...	severe case, ↓35.1...	Positive impact of oral hydroxychloroquine and p... Prophylaxis RCT in Singapore with 3,037 low risk patients, showing lower serious cases, lower sym...
Apr 8	Late Details	Gadhiya et al., B...	death, ↑4.8% , p=0.89	Clinical characteristics of hospitalised patients wi... Retrospective 283 patients in the USA showing higher mortality with all treatments (not statistically...
Apr 6	Early Details	Mokhtari et al., I...	death, ↓69.7% , p<0...	Clinical outcomes of patients with mild COVID-19 ... Retrospective 28,759 adult outpatients with mild COVID-19 in Iran, 7,295 treated with HCQ, showin...
Apr 5	Safety Details	Edington et al., E...	safety analysis	Safety of treatment with chloroquine and hydroxy... Safety analysis of CQ and HCQ covering 46 RCTs with 23,132 patients, showing no mortality attribu...
Mar 31	Late Details	Alghamdi et al., ...	death, ↑6.9% , p=0.88	Clinical Efficacy of Hydroxychloroquine in Patient... Retrospective 775 hospitalized patients in Saudi Arabia showing no significant difference. There wa...
Mar 26	Safety Details	Faruqui et al., Ind...	safety analysis	Safety of hydroxychloroquine in healthcare worke... Retrospective 1303 health care workers finding that HCQ prophylaxis was well tolerated. 20% repor...
Mar 24	PrEP Details	Dev et al., Transa...	cases, ↓26.0% , p=0...	Risk factors and frequency of COVID-19 among h... Retrospective case control study of 3,100 healthcare workers in India showing lower cases with HC...
Mar 23	Late Details	Barry et al., Inter...	death, ↓98.9% , p=0...	Clinical Characteristics and Outcomes of Hospital... 605 hospitalized patients in Saudi Arabia showing no mortality with HCQ (only 6 patients received ...
Mar 17	Late Details	Stewart et al., PL...	death, ↑18.0% , p=0...	COVID-19 Evidence Accelerator: A parallel analysi... Collection of seven retrospective database analyses in the USA, showing higher mortality with treat...
Mar 17	In Vit... Details	Dang et al., bioR...	in vitro	Structural basis of anti-SARS-CoV-2 activity of hy... Microscopy/spectroscopy study showing that HCQ binds to both N-terminal domain and C-termina...
Mar 12	Early Details	Roy et al., medRx...	recov. time, ↓2.4% , ...	Outcome of Different Therapeutic Interventions in... Retrospective database analysis of 56 mild COVID-19 patients, all treated with vitamin C, vitamin D...
Mar 9	PrEP Details	Vivanco-Hidalgo ...	hosp., ↑46.0% , p=0...	Incidence of COVID-19 in patients exposed to chl... Retrospective database analysis of chronic HCQ users and matched control patients, failing to mat...
Mar 8	Late Details	Martin-Vicente e...	death, ↓59.3% , p=0...	Absent or insufficient anti-SARS-CoV-2 S antibodi... Retrospective 92 ICU patients with almost all treated with HCQ and only one non-HCQ treated patie...

Mar 4	Late Details	Salvador et al., C...	death, ↓ 32.9% , p=0...	Clinical Features and Prognostic Factors of 245 P... Prospective study of 245 hospitalized patients, 121 treated with HCQ, showing lower (non-statistic...
Mar 2	PrEP Details	Pham et al., Rhe...	death, ↓ 19.7% , p=0...	Failure of chronic hydroxychloroquine in preventin... Tiny retrospective database analysis of hospitalized COVID-19 patients with rheumatologic disease...
Feb 28	Early Details	Thakar et al., Indian J. Med. Res., doi:10.41...		Chloroquine nasal drops in asymptomatic & mild ... Small RCT for CQ nasal drops suggesting efficacy in preventing infection, while no significant differ...
Feb 28	PrEP Details	Bhandari et al., International Journal of Me...		A Preventive Study on Hydroxychloroquine Proph... Retrospective 4,239 healthcare workers using HCQ prophylaxis showing no mortality, 8 mild sympt...
Feb 26	Early Details	Amaravadi et al.,...	no recov., ↓ 60.0% , ...	Hydroxychloroquine for SARS-CoV-2 positive pati... Tiny early-terminated 34 patient RCT for outpatient treatment showing faster recovery with treatme...
Feb 26	Late Details	Tanriverdi et al., Turkish Journal of Medical...		Hydroxychloroquine plus azithromycin and early h... Retrospective 83 hospitalized patients in Turkey confirming that earlier treatment is better, and sho...
Feb 26	Early Details	Giraud-Gatineau et al., Research Square, d...		The Need for Early Management in Patients With ... Review of early treatment of COVID-19 at IHU Méditerranée Infection in France, including HCQ+AZ t...
Feb 23	Late Details	Gonzalez et al., ...	death, ↓ 62.6% , p=0...	Efficacy and safety of Ivermectin and Hydroxychl... RCT late stage severe condition (93% SOFA ≥ 2, 96% APACHE ≥ 8) high comorbidity hospitalized pa...
Feb 20	PrEP Details	Bae et al., Viruse...	cases, ↓ 30.3% , p=0...	Recent Hydroxychloroquine Use Is Not Significant... Retrospective database analysis of prior HCQ usage in South Korea, showing non-statistically signi...
Feb 19	Late Details	Lamback et al., T...	death, ↓ 8.9% , p=0.83	Hydroxychloroquine with azithromycin in patients ... Retrospective 193 hospitalized patients in Brazil not finding a significant difference with HCQ. The ...
Feb 18	Late Details	Awad et al., Ame...	death, ↑ 19.1% , p=0...	Impact of hydroxychloroquine on disease progres... This paper has inconsistent values - the number of treatment and control patients differs in the text...
Feb 17	Late Details	Lora-Tamayo et ...	death, ↓ 50.5% , p<0...	Early Lopinavir/ritonavir does not reduce mortalit... Lopinavir/ritonavir retrospective study also showing univariate results for HCQ, with significantly lo...
Feb 10	Early,... Details	Desai et al., J. Clinical Medicine, doi:10.339...		The Use of Antiviral Agents against SARS-CoV-2: I... Retrospective 143 COVID-19 hospitalized patients >65yo, showing adjusted OR for antiviral treatme...

Feb 9	Late	<i>Thompson et al.,...</i>	death, ↑ 6.2% , p=0.84	Outcomes Related to COVID-19 Treated With Hyd...
	Details	Late stage (65% on oxygen at baseline) low-dose RCT, not showing significant differences with trea...		
Feb 9	Meta	<i>Lounnas e al., Ar...</i>	meta-analysis	Revisiting a Meta-analysis Shows that Hydroxychl...
	Details	Analysis of the Fiolet meta analysis and correction of bias evaluation, showing HCQ RR 0.45 [0.31-...		
Feb 9	Late	<i>Purwati et al., Bi...</i>	viral+, ↓ 66.3% , p<0....	A Randomized, Double-Blind, Multicenter Clinical ...
	Details	RCT 754 patients comparing HCQ+AZ along with other treatment groups using lopinavir/ritonavir a...		
Feb 5	PrEP	<i>Fitzgerald et al., ...</i>	cases, ↓ 8.5% , p=0.52	Risk Factors for Infection and Health Impacts of t...
	Details	Retrospective 4666 people with autoimmune or inflammatory conditions, showing HCQ adjusted ri...		
Feb 5	Late	<i>Hernandez-Card...</i>	death, ↓ 12.0% , p=0....	Hydroxychloroquine for the treatment of severe re...
	Details	Very late stage RCT with 214 patients, mean SpO ₂ 65%, 162 on mechanical ventilation, showing no ...		
Feb 5	Late	<i>Ouedraogo et al.,...</i>	death, ↓ 33.0% , p=0....	Factors associated with the occurrence of acute r...
	Details	Retrospective 456 patients in Burkina Faso showing lower risk of ARDS (p=0.001) and mortality (p=...		
Feb 7	Revi...	<i>Alexander et al., ...</i>	review	Early Multidrug Outpatient Treatment of SARS-Co...
	Details	Review of studies on treatment of COVID-19 for nursing home residents, concluding that there is a l...		
Feb 7	Late	<i>Ubaldo et al., Crit...</i>	death, ↓ 18.4% , p=0....	COVID-19: A Single-Center ICU Experience of the ...
	Details	Retrospective ICU patients in the Philippines showing unadjusted HCQ RR 0.82, p = 0.64.		
Jan 31	PrEP	<i>Naderi et al., Immunopathologia Persa, doi...</i>		Prophylactic effects of hydroxychloroquine on the...
	Details	Prospective observational study of 215 RA patients treated with HCQ showing 9 cases, 1 hospitaliz...		
Jan 31	Late	<i>Roig et al., Revist...</i>	death, ↓ 15.6% , p=0....	Clinical and pharmacological data in COVID-19 ho...
	Details	Retrospective 79 hospitalized nonagenarian patients showing unadjusted HCQ mortality RR 0.84, p...		
Jan 29	Late	<i>Di Castelnuovo e...</i>	death, ↓ 40.0% , p<0....	Disentangling the Association of Hydroxychloroq...
	Details	Retrospective 4,396 hospitalized patients in Italy showing significantly lower mortality with HCQ tre...		
Jan 27	PrEP	<i>Trefond et al., SS...</i>	death, ↑ 16.6% , p=0....	Impact of hydroxychloroquine used as DMARD on...
	Details	Retrospective 71 chronic HCQ patients compared with 191 matched controls, analyzing only those ...		
Jan 26	Safety	<i>Eftekhar et al., m...</i>	safety analysis	Hydroxychloroquine and azithromycin: As a doubl...
	Details	Retrospective 172 hospitalized patients, 83% treated and HCQ+AZ and 17% with HCQ, not finding a...		

Jan 25	Early Details	Dabbous et al., Archives of Virology, doi:10...		Efficacy of favipiravir in COVID-19 treatment: a m... RCT with 44 favipiravir patients and 48 CQ patients, showing non-statistically significant lower mor...
Jan 25	In Sil... Details	Hussein et al., Journal of Molecular Struct...		Molecular Docking Identification for the efficacy o... Molecular dynamics analysis recommending Zn (CQ) Cl2(H2O) and Zn (HCQ) Cl2(H2O) as potentia...
Jan 24	Early Details	Zelenko, Z., Preprint (Preprint)		Nebulized Hydroxychloroquine for COVID-19 Treat... Report on the use of nebulized HCQ showing much more rapid improvement compared to tablets, ...
Jan 23	PrEP Details	Cifuentes et al., Medicina Clínica (English E...		Incidence of COVID-19 in patients under chronic t... Retrospective 3,817 chronic HCQ patients showing 4.4% COVID-19 positive rate, 1.3% severe. There...
Jan 18	Late Details	Li et al., Science ...	no disch., ↓50.0% , ...	Evaluation of the efficacy and safety of hydroxych... Small RCT comparing HCQ and CQ in China with 88 very late stage (17.6 days from onset to hospit...
Jan 12	Late Details	Li et al., Researc...	viral- time, ↑40.0% , ...	Treatment of COVID-19 patients with hydroxychlo... Small retrospective database analysis of 37 late stage patients hospitalized in an intensive care ce...
Jan 10	PrEP Details	Rangel et al., Jou...	death, ↓25.1% , p=0...	Chronic Hydroxychloroquine Therapy and COVID-... Retrospective 50 COVID-19 patients that take chronic HCQ, compared to a matched sample of pati...
Jan 8	Late Details	Yegerov et al., m...	death, ↓95.3% , p=1...	Epidemiological and Clinical Characteristics, and ... Retrospective 1,072 hospitalized patients in Kazakhstan showing no mortality for HCQ treated pati...
Jan 7	In Sil... Details	Baidya et al., Journal of Molecular Structu...		Inhibitory capacity of Chloroquine against SARS-C... Molecular docking study of 16 drugs showing CQ had the highest binding affinity with ACE2, and m...
Jan 6	In Sil... Details	Noureddine et al., Journal of King Saud Uni...		Quantum chemical studies on molecular structur... <i>In silico</i> analysis of hydroxychloroquine and hydroxychloroquine sulfate predicting that hydroxychlo...
Jan 4	Safety Details	Gautret et al., Int...	safety analysis	Safety profile of hydroxychloroquine and azithrom... Report on the safety of HCQ+AZ with 3,737 COVID-19 patients. 138 had contraindications and treat...
Jan 2	Late Details	Sarfaraz et al., m...	death, ↑45.0% , p=0...	Determinants of in-hospital mortality in COVID-19;... Retrospective 186 hospitalized patients in Pakistan showing unadjusted HCQ mortality RR 1.45, p =...
Jan 1	Late Details	Lotfy et al., Turk. ...	death, ↑24.8% , p=0...	Use of Hydroxychloroquine in Patients with COVI... Retrospective 202 patients in Saudi Arabia not showing significant differences with treatment. No i...

Jan 1	Late	<i>Sands et al., Inte...</i>	death, ↑169.9%, p=0...	No clinical benefit in mortality associated with hy...
	Details	Retrospective database analysis of 1,669 patients in the US showing OR 1.81, $p = 0.01$. Confoundin...		
Dec 31 2020	Revi...	<i>Matada et al., Bi...</i>	review	A comprehensive review on the biological interest...
	Details	Review of quinolone and derivatives, natural and drug sources, and biological activity.		
Dec 31 2020	Late	<i>Pseudos et al., O...</i>	death, ↑163.5%, p=0...	Corona Virus Disease-19 (COVID-19) in a Veteran...
	Details	Retrospective 67 hospitalized patients in the USA showing non-statistically significant unadjusted i...		
Dec 31 2020	Late	<i>Texeira et al., Op...</i>	death, ↑179.3%, p=0...	Characteristics and outcomes of COVID-19 patien...
	Details	Retrospective 161 hospitalized patients in the USA showing non-statistically significant unadjusted ...		
Dec 31 2020	Late	<i>Vernaz et al., Swi...</i>	death, ↓15.3%, p=0...	Early experimental COVID-19 therapies: associati...
	Details	Retrospective 840 hospitalized patients in Switzerland showing non-statistically significant lower m...		
Dec 30 2020	Revi...	<i>McCullough et al...</i>	review	Multifaceted highly targeted sequential multidrug ...
	Details	Review urging early treatment of COVID-19 with sequential multidrug treatment that has been sho...		
Dec 30 2020	Early	<i>Procter et al., Reviews in Cardiovascular M...</i>		Clinical outcomes after early ambulatory multidru...
	Details	Retrospective 922 outpatients, with 320 treated early due to age>50 or comorbidities, showing 2.2...		
Dec 29 2020	Late	<i>Güner et al., Jour...</i>	ICU, ↓77.3%, p=0.16	Comparing ICU Admission Rates of Mild/Moderat...
	Details	Retrospective 824 hospitalized patients in Turkey showing lower ICU admission for HCQ vs. favipir...		
Dec 28 2020	PrEP	<i>Cordtz et al., Rhe...</i>	hosp., ↓24.0%, p=0...	Incidence and severeness of COVID-19 hospitalis...
	Details	Retrospective 58,052 rheumatic disease patients in Denmark showing that RA patients have a high...		
Dec 24 2020	Late	<i>Chari et al., Bloo...</i>	death, ↓33.1%, p=0...	Clinical features associated with COVID-19 outco...
	Details	Retrospective multiple myeloma patients showing lower mortality with HCQ treatment, unadjusted ...		
Dec 23 2020	Early	<i>Su et al., BioScie...</i>	progression, ↓84.9...	Efficacy of early hydroxychloroquine treatment in ...
	Details	85% lower disease progression with early use of HCQ. Retrospective 616 patients in China showing...		
Dec 23 2020	Late	<i>Taccone et al., T...</i>	death, ↓24.7%, p=0...	The role of organizational characteristics on the o...
	Details	Retrospective 1,747 ICU patients in Belgium showing lower mortality with HCQ, multivariate mixed ...		
Dec 22 2020	Late	<i>Cangiano et al., ...</i>	death, ↓73.4%, p=0...	Mortality in an Italian nursing home during COVID...
	Details	73% lower mortality with HCQ. Analysis of 98 PCR+ nursing home residents in Italy, mean age 90, s...		

Dec 7, 2020	PrEP	<i>Huh et al., Intern...</i>	progression, ↑251....	Association of prescribed medications with the ri...
	Details	Retrospective database analysis with 17 existing users of HCQ and 5 severe cases, showing no sig...		
Dec 18 2020	Late	<i>Matangila et al., ...</i>	death, ↓54.9%, p=0....	Clinical characteristics of COVID-19 patients hosp...
	Details	55% lower death with HCQ+AZ. Retrospective 160 hospitalized patients in the Democratic Republic...		
Dec 16 2020	Late	<i>Signes-Costa et ...</i>	death, ↓47.0%, p=0....	Prevalence and 30-day mortality in hospitalized p...
	Details	47% lower mortality with HCQ/CQ. Retrospective 1,271 patients with lung disease in Canada, China...		
Dec 16 2020	PrEP	<i>Gönenli et al., Re...</i>	progression, ↓29.7...	Prophylactic use of Hydroxychloroquine among P...
	Details	Small prophylaxis survey showing lower, but not statistically significant, progression to pneumonia ...		
Dec 14 2020	Late	<i>De Luna et al., m...</i>	death, ↑104.5%, p=...	Clinical and Demographic Characteristics of COVI...
	Details	Retrospective 150 patients in the Dominican Republic, 132 treated with HCQ, showing higher morta...		
Dec 14 2020	Late	<i>Sofian et al., Wiener Medizinische Wochen...</i>		SARS-CoV-2, a virus with many faces: a series of ...
	Details	Report on a series of 10 patients experiencing prolonged COVID-19 symptoms that were given HC...		
Dec 14 2020	Late	<i>Orioli et al., Diab...</i>	death, ↓12.7%, p=1....	Clinical characteristics and short-term prognosis ...
	Details	Small retrospective study of 73 diabetic patients in Belgium, 55 HCQ patients, showing HCQ RR 0.8...		
Dec 14 2020	Late	<i>Naseem et al., m...</i>	death, ↓33.3%, p=0....	Predicting mortality in SARS-COV-2 (COVID-19) p...
	Details	Retrospective 1,214 hospitalized patients in Pakistan, 77 HCQ patients, showing 33% lower mortalit...		
Dec 14 2020	Late	<i>Tan et al., Virus R...</i>	hosp. time, ↓35.2%,...	A retrospective comparison of drugs against COV...
	Details	Retrospective 333 patients in China, with only 8 HCQ patients, showing shorter duration of hospitali...		
Dec 11 2020	Late	<i>Bielza et al., Jour...</i>	death, ↓21.5%, p=0....	Clinical characteristics, frailty and mortality of resi...
	Details	Retrospective 630 elderly patients in Spain showing lower mortality with HCQ treatment, unadjuste...		
Dec 11 2020	Early	<i>Sogut et al., The ...</i>	safety analysis	Safety and efficacy of hydroxychloroquine in 152 ...
	Details	Safety study of 152 outpatients concluding that HCQ is safe for COVID-19, was well tolerated, and ...		
Dec 11 2020	PrEP	<i>Jung et al., Clinic...</i>	death, ↓59.3%, p=1....	Effect of hydroxychloroquine pre-exposure on infe...
	Details	Retrospective cohort study of RA and SLE patients not showing a significant difference in PCR+ ca...		
Dec 10 2020	Late	<i>Alqassieh et al., ...</i>	hosp. time, ↓18.2%,...	Clinical characteristics and predictors of the durat...
	Details	Prospective observational study of 131 COVID-19 patients in Jordan, showing 18% shorter hospital...		
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Dec 7 2020	News	Italian Council of...	news	Consiglio di Stato, sì all'uso dell'idrossiclorachina ...
	Details	Consiglio di Stato ruling in Italy re-establishes the right of Italian MDs to prescribe HCQ, which was ...		
Dec 9 2020	Late	Johnston et al., E...	hosp., ↓29.9%, p=0...	Hydroxychloroquine with or Without Azithromycin...
	Details	Small early terminated late treatment RCT comparing vitamin C + folic acid, HCQ + folic acid, and H...		
Dec 9 2020	Early	Agusti et al., Enf...	progression, ↓68.4...	Efficacy and safety of hydroxychloroquine in healt...
	Details	Small trial of low dose HCQ for healthcare workers with mild SARS-CoV-2 showing 68% lower progr...		
Dec 9 2020	Late	Guglielmetti et al...	death, ↓35.0%, p=0...	Severe COVID-19 pneumonia in Piacenza, Italy – ...
	Details	Retrospective 218 hospitalized patients in Italy showing non-statistically significant 35% lower mor...		
Dec 7 2020	PEP	Barnabas et al., ...	hosp., ↑3.7%, p=1.00	Hydroxychloroquine for Post-exposure Prophylaxi...
	Details	Early terminated PEP RCT comparing HCQ and vitamin C with 781 low-risk patients (83% househol...		
Dec 4 2020	Late	Ozturk et al., Nep...	death, ↓43.9%, p=0...	Mortality analysis of COVID-19 infection in chroni...
	Details	Retrospective 1210 hospitalized patients in Turkey focused on chronic kidney disease, haemodialy...		
Dec 4 2020	Late	Modrák et al., m...	death, ↓59.0%, p=0...	Detailed disease progression of 213 patients hos...
	Details	Retrospective 213 hospitalized patients in Czech Republic showing lower mortality with HCQ. Subj...		
Dec 4 2020	Late	Peng et al., Neph...	progression, ↓10.8...	Early versus late acute kidney injury among patien...
	Details	Retrospective 4020 hospitalized patients in China showing non-statistically significant lower risk of...		
Dec 2 2020	PEP	Wiseman et al., ...	cases, ↓42.0%, p=0...	Effective post-exposure prophylaxis of Covid-19 is...
	Details	6th independent analysis showing efficacy from the Boulware PEP trial. This prospective analysis c...		
Dec 7 2020	Late	Capsoni et al., R...	ventilation, ↓40.0%,...	CPAP Treatment In COVID-19 Patients: A Retrospe...
	Details	Small 52 patient retrospective study of patients with acute respiratory failure showing lower rates o...		
Nov 30 2020	Late	Abdulrahman et ...	death, ↓16.7%, p=1...	The efficacy and safety of hydroxychloroquine in ...
	Details	Retrospective medical record analysis of acute care patients in Bahrain not showing a significant ef...		
Nov 29 2020	Late	Abd-Elsalam et al., Biological Trace Eleme...		Do Zinc Supplements Enhance the Clinical Efficac...
	Details	191 patient RCT in Egypt comparing the addition of zinc to HCQ, not showing a significant differenc...		
Nov 28 2020	Late	Lambermont et ...	death, ↓32.3%, p=0...	Predictors of Mortality and Effect of Drug Therapi...
	Details	Retrospective 247 mechanically ventilated patients showing lower mortality with HCQ, but not stati...		

Nov 21 2020	N/A Details	<i>Ruiz et al., Intern...</i>	dosing study	Hydroxychloroquine lung pharmacokinetics in crit... HCQ lung pharmacokinetic study confirming that lung concentrations can be much higher than pla...
Nov 28 2020	Late Details	<i>Rodriguez-Gonz...</i>	death, ↓22.8%, p=0...	COVID-19 in hospitalized patients in Spain: a coho... Retrospective 1255 patients in Spain showing lower mortality with HCQ. Subject to confounding by...
Nov 27 2020	Late Details	<i>van Halem et al., ...</i>	death, ↓31.6%, p=0...	Risk factors for mortality in hospitalized patients ... Retrospective 319 hospitalized patients in Belgium showing lower mortality with HCQ, although not...
Nov 26 2020	Late Details	<i>Burdick et al., Jo...</i>	death, ↑59.0%, p=0...	Is Machine Learning a Better Way to IdentifyCOVI... 290 patient observational trial in the USA, not showing a significant difference with HCQ treatment ...
Nov 24 2020	Late Details	<i>Abbas et al., Int. J. Clin. Pract., doi:10.1111...</i>		Assessment of COVID-19 Treatment containing b... Prospective study of 161 hospitalized patients in Iraq showing HCQ+AZ appears to help recovery. ...
Nov 23 2020	Late Details	<i>Qin et al., Throm...</i>	death, ↓34.3%, p=0...	Low molecular weight heparin and 28-day mortali... Low molecular weight heparin study also showing results for HCQ treatment, unadjusted HCQ mor...
Nov 21 2020	PrEP Details	<i>Revollo et al., Jo...</i>	cases, ↓23.0%, p=0...	Hydroxychloroquine pre-exposure prophylaxis for ... Retrospective PrEP analysis with 69 healthcare workers on PrEP HCQ, and 418 control. Authors rep...
Nov 20 2020	Early Details	<i>Omrani et al., ECL...</i>	hosp., ↓12.5%, p=1...	Randomized double-blinded placebo-controlled tri... Low risk patient RCT for HCQ+AZ and HCQ vs. control, not showing any significant differences. Aut...
Nov 19 2020	Late Details	<i>Falcone et al., Op...</i>	death, ↓65.0%, p=0...	Role of low-molecular weight heparin in hospitaliz... Prospective observational study of 315 hospitalized patients in Italy showing 65% lower mortality ...
Nov 18 2020	Late Details	<i>Budhiraja et al., ...</i>	death, ↓65.4%, p<0...	Clinical Profile of First 1000 COVID-19 Cases Adm... Retrospective 976 hospitalized patients with 834 treated with HCQ+AZ showing HCQ mortality rela...
Nov 17 2020	Late Details	<i>Boari et al, Biosci...</i>	death, ↓54.5%, p<0...	Prognostic factors and predictors of outcome in p... Retrospective 258 hospitalized patients in Italy showing lower mortality with HCQ treatment, unadj...
Nov 13 2020	Late Details	<i>Sheshah et al., Di...</i>	death, ↓80.0%, p<0...	Prevalence of Diabetes, Management and Outco... Retrospective 300 hospitalized patients in Saudi Arabia showing HCQ adjusted odds ratio aOR 0.12...
Nov 12 2020	Early Details	<i>Simova et al., Ne...</i>	hosp., ↓93.8%, p=0...	Hydroxychloroquine for prophylaxis and treatmen... 100% reduction in hospitalization and cases with early treatment using HCQ+AZ+zinc. Brief report ...
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Nov 7, 2020	PEP	<i>Simova et al., Ne...</i>	cases, ↓92.7%, p=0...	Hydroxychloroquine for prophylaxis and treatmen...
	Details	100% reduction in cases with HCQ+zinc post-exposure prophylaxis. Brief report for healthcare work...		
Nov 12 2020	N/A	<i>Tchounga et al., ...</i>	meta-analysis	Composition analysis of falsified chloroquine pho...
	Details	Analysis of fake CQ tablets finding: - no CQ in six samples, substituted with metronidazole (at sub-t...		
Nov 11 2020	Late	<i>Águila-Gordo et ...</i>	death, ↓67.0%, p=0...	Mortality and associated prognostic factors in eld...
	Details	67% lower mortality with HCQ. Retrospective 416 elderly patients in Spain showing adjusted HCQ ...		
Nov 9 2020	Late	<i>Khamis et al., International Journal of Infec...</i>		Randomized Controlled Open Label Trial on the U...
	Details	Small 89 patient RCT comparing favipiravir and inhaled interferon with HCQ for moderate to severe ...		
Nov 9 2020	Late	<i>Rodriguez et al., ...</i>	death, ↓59.0%, p=0...	Severe infection due to the SARS-CoV-2 coronavir...
	Details	Small prospective study of 43 hospitalized patients with 39 taking HCQ, showing unadjusted morta...		
Nov 9 2020	Late	<i>Self et al., JAMA,...</i>	death, ↑6.2%, p=0.84	Effect of Hydroxychloroquine on Clinical Status at...
	Details	Early terminated very late stage (65% on supplemental oxygen) RCT with 242 HCQ and 237 control ...		
Nov 9 2020	Late	<i>Brown et al., Annals of the American Thora...</i>		Hydroxychloroquine vs. Azithromycin for Hospitali...
	Details	Small early terminated very late stage (86% on oxygen, 44% enrolled in the ICU) RCT comparing HC...		
Nov 9 2020	Late	<i>Núñez-Gil et al., I...</i>	death, ↓7.9%, p=0.0...	Mortality risk assessment in Spain and Italy, insig...
	Details	Retrospective database study of 1,021 patients in Ecuador, Germany, Italy, and Spain, showing HCQ...		
Nov 6 2020	PrEP	<i>Mathai et al., J. ...</i>	cases, ↓89.5%, p<0...	Hydroxychloroquine as pre-exposure prophylaxis ...
	Details	90% reduction in cases with HCQ pre-exposure prophylaxis. Retrospective 604 healthcare workers.		
Nov 6 2020	PrEP	<i>Datta et al., Jour...</i>	cases, ↓22.1%, p=0...	No Role of HCQ in COVID-19 Prophylaxis: A Surve...
	Details	Survey of Indian doctors not finding a significant effect of HCQ prophylaxis.		
Nov 6 2020	PEP	<i>Dhibar et al., Inte...</i>	cases, ↓41.0%, p=0...	Post Exposure Prophylaxis with Hydroxychloroqui...
	Details	41% reduction in cases with HCQ PEP. Prospective open label trial with 132 HCQ patients and 185 ...		
Nov 5 2020	Late	<i>Maldonado et al...</i>	death, ↓90.9%, p=0...	COVID-19 incidence and outcomes in a home dial...
	Details	Very small retrospective of 12 dialysis patients showing 1/11 deaths with HCQ and 1/1 without HCQ.		
Nov 5 2020	Late	<i>Rodriguez-Nava ...</i>	death, ↑6.3%, p=0.77	Clinical characteristics and risk factors for mortali...
	Details	Retrospective 313 patients, mostly critical stage and mostly requiring respiratory support, showing ...		

Nov 4 2020	Late Details	<i>Salazar et al., Th...</i>	death, ↑37.0% , p=0....	Significantly Decreased Mortality in a Large Cohor... Convalescent plasma study also showing mortality based on HCQ treatment, unadjusted hazard ra...
Nov 4 2020	Early Details	<i>Cadegiani et al., ...</i>	death, ↓81.2% , p=0....	Early COVID-19 Therapy with azithromycin plus ni... Comparison of HCQ, nitazoxanide, and ivermectin showing similar effectiveness for overall clinical ...
Nov 3 2020	PrEP Details	<i>Behera et al., PL...</i>	cases, ↓27.9% , p=0....	Role of ivermectin in the prevention of SARS-CoV-... Retrospective matched case-control prophylaxis study for HCQ, ivermectin, and vitamin C with 372 ...
Nov 2 2020	Late Details	<i>López et al., Ann...</i>	progression, ↓64.3...	Telemedicine follow-ups for COVID-19: experience... Retrospective 72 pediatric patients showing HCQ associated with a shorter duration of fever (p=0.0...
Oct 31 2020	Early Details	<i>Szente Fonseca ...</i>	hosp., ↓64.0% , p=0....	Risk of Hospitalization for Covid-19 Outpatients T... 64% lower hospitalization with HCQ. Retrospective 717 patients in Brazil with early treatment, adjus...
Oct 30 2020	Late Details	<i>Tehrani et al., Int...</i>	death, ↓13.4% , p=0....	Risk factors for mortality in adult COVID-19 patien... Retrospective 255 hospitalized patients, 65 treated with HCQ, showing unadjusted RR 0.87, p=0.63...
Oct 27 2020	PrEP Details	<i>Arleo et al., med...</i>	death, ↓50.0% , p=0....	Clinical Course and Outcomes of coronavirus dise... Retrospective hospitalized rheumatic disease patients showing 50% lower mortality for patients on...
Oct 27 2020	Late Details	<i>Choi et al., Intern...</i>	viral- time, ↑22.0% , ...	Comparison of antiviral effect for mild-to-moderat... Health insurance database analysis failing to adjust for disease severity and not finding a significan...
Oct 26 2020	Late Details	<i>Frontera et al., R...</i>	death, ↓37.0% , p=0....	Treatment with Zinc is Associated with Reduced I... Retrospective 3,473 hospitalized patients showing lower mortality with HCQ+zinc.
Oct 26 2020	Early Details	<i>Derwand et al., l...</i>	death, ↓79.4% , p=0....	COVID-19 Outpatients – Early Risk-Stratified Treat... 79% lower mortality and 82% lower hospitalization with early HCQ+AZ+Z. No cardiac side effects. ...
Oct 24 2020	PrEP Details	<i>Goenka et al., SS...</i>	IgG+, ↓87.2% , p=0.03	Seroprevalence of COVID-19 Amongst Health Car... Study of SARS-CoV-2-IgG antibodies in 1122 health care workers in India finding 87% lower positive...
Oct 23 2020	Late Details	<i>Coll et al., Ameri...</i>	death, ↓45.6% , p<0....	Covid-19 in transplant recipients: the spanish exp... Retrospective 652 transplant recipient patients in Spain showing 46% lower mortality for patients tr...
Oct 21 2020	Late Details	<i>Lano et al., Clinic...</i>	death, ↓33.1% , p=0....	Risk factors for severity of COVID-19 in chronic di... 33% lower mortality with HCQ+AZ, p=0.28. Retrospective 122 French dialysis patients. 69% lower c...

Oct 2, 2020	Late	<i>Dubee et al., Clini...</i>	death, ↓46.0%, p=0...	Hydroxychloroquine in mild-to-moderate COVID-1...
	Details	Small early terminated late stage (60% on oxygen) RCT in France showing 46% lower mortality. mo...		
Oct 27 2020	Late	<i>Ñamendys-Silva ...</i>	death, ↓32.3%, p=0...	Outcomes of patients with COVID-19 in the Intens...
	Details	Retrospective 164 ICU patients in Mexico showing 32% lower mortality with HCQ+AZ and 37% low...		
Oct 20 2020	Early,...	<i>IHU Marseille (Pr...</i>	meta-analysis	Meta-analysis on chloroquine derivatives and CO...
	Details	Updated meta analysis of 41 studies showing CQ/HCQ OR 0.57, p<0.0001 from clinical studies. For...		
Oct 20 2020	Late	<i>Solh et al., medR...</i>	death, ↑18.0%, p=0...	Clinical course and outcome of COVID-19 acute r...
	Details	Retrospective database analysis of 7,816 Veterans Affairs hospitalized patients analyzing progressi...		
Oct 17 2020	Early	<i>Mohana et al., In...</i>	safety analysis	Hydroxychloroquine Safety Outcome within Appro...
	Details	Safety study of 2,733 patients in Saudi Arabia showing HCQ in mild to moderate cases in an outpat...		
Oct 15 2020	Late	<i>Guisado-Vasco (...</i>	death, ↓20.3%, p=0...	Clinical characteristics and outcomes among hos...
	Details	Retrospective 607 patients reporting results for early outpatient HCQ use with mortality odds ratio ...		
Oct 15 2020	Late	<i>SOLIDARITY Tria...</i>	death, ↑19.0%, p=0...	Repurposed antiviral drugs for COVID-19; interim ...
	Details	WHO SOLIDARITY open-label trial with 954 very late stage (64% on oxygen/ventilation) HCQ patient...		
Oct 12 2020	Late	<i>Annie et al., Phar...</i>	death, ↓4.3%, p=0.83	Hydroxychloroquine in hospitalized COVID-19 pati...
	Details	Retrospective database analysis with PSM not including COVID-19 severity, finding mortality OR 0...		
Oct 11 2020	Late	<i>Sili et al., medRxiv, doi:10.1101/2020.10.09...</i>		Factors associated with progression to critical illn...
	Details	Analysis of hospitalized patients in Turkey showing HCQ was given to 99.2% of patients and the inc...		
Oct 8 2020	Late	<i>Aparisi et al., me...</i>	death, ↓63.0%, p=0...	Low-density lipoprotein cholesterol levels are ass...
	Details	Retrospective 654 hospitalized patients focused on low-density lipoprotein cholesterol levels, also ...		
Oct 8 2020	Late	<i>Soto-Becerra et...</i>	death, ↓18.1%, p<0...	Real-World Effectiveness of hydroxychloroquine, a...
	Details	Retrospective database study of 5683 patients, 692 received HCQ/CQ+AZ, 200 received HCQ/CQ, 2...		
Oct 6 2020	Late	<i>Ader et al., medR...</i>	death, ↓6.4%, p=1.00	Antiviral drugs in hospitalized patients with COVID...
	Details	Early terminated very late stage (95% on oxygen at baseline) DISCOVERY trial. 4% more patients we...		
Oct 5 2020	Late	<i>Mori et al., Journal of Microbiology, Immun...</i>		Triple therapy with hydroxychloroquine, azithromy...
	Details	Small case study of 5 patients in Japan showing improvement with HCQ+AZ+ciclesonide.		

Oct 5 2020	Early,... Details	<i>Prodromos et al.,...</i> meta-analysis		Hydroxychloroquine is effective, and consistently ... Meta analysis of 43 studies: "HCQ was found consistently effective against COVID-19 when used e...
Oct 2 2020	Late Details	<i>Nachega et al., T...</i> death, ↓27.6%, p=0...		Clinical Characteristics and Outcomes of Patients... Retrospective 766 hospitalized patients in DRC showing mortality reduced from 29% to 11%, and i...
Oct 1 2020	Late Details	<i>Almazrou et al., ...</i> ventilation, ↓65.0%,...		Comparing the impact of Hydroxychloroquine bas... Retrospective 161 hospitalized patients in Saudi Arabia showing lower ventilation and ICU admissi...
Oct 1 2020	PrEP,... Details	<i>Garcia-Albeniz et...</i> cases, ↓22.0%, p=0...		Brief communication: A meta-analysis of randomi... Combination of the four underpowered prophylaxis RCTs to date showing statistically significant re...
Sep 30 2020	PrEP Details	<i>Yadav et al., Res...</i> hosp., ↓82.4%, p=0...		Sero-survey for health-care workers provides corr... ICMR seroprevalence survey of 500 healthcare workers in India, 279 taking HCQ prophylaxis, showi...
Sep 30 2020	PEP Details	<i>Polat et al., Medi...</i> cases, ↓57.0%, p=0...		Hydroxychloroquine Use on Healthcare Workers E... Small prophylaxis study of 208 healthcare workers in Turkey, 138 with high risk exposure received ...
Sep 30 2020	Late Details	<i>Ayerbe et al., Inte...</i> death, ↓52.2%, p<0...		The association of treatment with hydroxychloroq... 2075 hospital patients in Spain showing HCQ reduces mortality 52%, odds ratio OR 0.39, p<0.001, a...
Sep 30 2020	PrEP,... Details	<i>Ladapo et al., me...</i> cases/death/hosp.,...		Randomized Controlled Trials of Early Ambulatory... Meta analysis of prophylactic and early treatment RCTs, 24% reduction in cases, hospitalization or ...
Sep 30 2020	PrEP Details	<i>Abella et al., JA...</i> cases, ↓5.0%, p=1.00		Efficacy and Safety of Hydroxychloroquine vs Pla... Very small early-terminated underpowered PrEP RCT with 64/61 HCQ/control patients and only 8 i...
Sep 29 2020	Late Details	<i>Lammers et al., I...</i> death/ICU, ↓32.0%, ...		Early hydroxychloroquine but not chloroquine use ... Observational study 1,064 hospitalized patients in the Netherlands, 53% reduced risk of transfer to ...
Sep 29 2020	Late Details	<i>Dabbous et al., Scientific Reports, doi:10.1...</i> Safety and efficacy of favipiravir versus hydroxych...		Safety and efficacy of favipiravir versus hydroxych... Small RCT comparing HCQ and favipiravir, with 50 patients in each arm, finding that 55.1% of HCQ ...
Sep 28 2020	PEP Details	<i>Luco, J., Trends ...</i> meta-analysis		Hydroxychloroquine as post-exposure prophylaxis... Reanalysis of Boulware et al. PEP trial data showing statistically significant improvements with HCQ.
Sep 24 2020	Early,... Details	<i>Gasperetti et al., ...</i> safety analysis		Arrhythmic safety of hydroxychloroquine in COVI... Safety study of 649 patients finding that HCQ administration is safe for short-term treatment for pa...

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Sep 22 2020	Late	<i>Shoaibi et al., me...</i>	death, ↓15.4%, p<0...	Comparative Effectiveness of Famotidine in Hosp...
	Details	Retrospective database analysis focused on Famotidine but also showing results for HCQ users, wi...		
Sep 23 2020	Late	<i>Ulrich et al., Ope...</i>	death, ↑6.0%, p=1.00	Treating Covid-19 With Hydroxychloroquine (TEA...
	Details	Small RCT on very late stage use of HCQ, with 48% on oxygen at baseline. 67 HCQ patients, 61 con...		
Sep 22 2020	Late	<i>Serrano et al., An...</i>	death, ↓43.0%, p=0...	COVID-19 and lung cancer: What do we know?
	Details	Small retrospective study of 22 lung cancer patients, 14 treated with HCQ+AZ, showing HCQ+AZ m...		
Sep 27 2020	PrEP	<i>Gentry et al., Lan...</i>	death, ↓91.3%, p=0...	Long-term hydroxychloroquine use in patients wit...
	Details	Retrospective patients with rheumatologic conditions showing zero of 10,703 COVID-19 deaths for ...		
Sep 27 2020	PrEP	<i>Rajasingham et ...</i>	cases, ↓27.0%, p=0...	Hydroxychloroquine as pre-exposure prophylaxis f...
	Details	PrEP RCT showing HR 0.73, $p = 0.12$. Trial halted after 47% enrollment, $p < 0.05$ will be reached at ~...		
Sep 27 2020	PrEP	<i>Grau-Pujol et al., ...</i>	cases, ↓67.9%, p=0...	Pre-exposure prophylaxis with hydroxychloroquin...
	Details	Small PrEP RCT showing that PrEP with HCQ is safe at the dosage used. No deaths, hospitalization...		
Sep 27 2020	Early	<i>Lofgren et al., Op...</i>	safety analysis	Safety of Hydroxychloroquine among Outpatient ...
	Details	Analysis of 2,795 outpatients not showing significant safety concerns with HCQ. No deaths were re...		
Sep 18 2020	Late	<i>Axfors et al., Nat...</i>	meta-analysis	Mortality outcomes with hydroxychloroquine and ...
	Details	Meta analysis assigning 89% weight to the RECOVERY and SOLIDARITY trials, producing the same ...		
Sep 16 2020	N/A	<i>Karatza et al., Xe...</i>	dosing study	Optimization of hydroxychloroquine dosing sche...
	Details	Analysis of HCQ dosing, suggesting that high initial doses followed by low and sparse doses may o...		
Sep 15 2020	Late	<i>Ashinyo et al., Pa...</i>	hosp. time, ↓33.0%,...	Clinical characteristics, treatment regimen and du...
	Details	Retrospective 307 hospital patients in Ghana showing 33% reduction in hospitalization time with H...		
Sep 14 2020	Late	<i>Lauriola et al., Cli...</i>	death, ↓73.5%, p<0...	Effect of combination therapy of hydroxychloroqu...
	Details	Retrospective 377 patients, 73% reduction in mortality with HCQ+AZ, adjusted hazard ratio HR 0.27...		
Sep 13 2020	Early	<i>Sulaiman et al., ...</i>	death, ↓63.7%, p=0...	The Effect of Early Hydroxychloroquine-based Th...
	Details	Observational prospective 5,541 patients, adjusted HCQ mortality odds ratio OR 0.36, $p = 0.012$. Adj...		
Sep 12 2020	Late	<i>Heberto et al., IJ...</i>	death, ↓53.6%, p=0...	Implications of myocardial injury in Mexican hosp...
	Details	Observational prospective 254 hospitalized patients, HCQ+AZ mortality odds ratio OR 0.36, $p = 0.0...$		

Sep 5 2020	Late	<i>Alamdari et al., T...</i>	death, ↓55.0%, p=0...	Mortality Risk Factors among Hospitalized COVID...
	Details	Retrospective 459 patients in Iran 93% using HCQ, showing HCQ mortality RR 0.45, $p = 0.028$. HCQ ...		
Sep 9 2020	Early,...	<i>Kirenga et al., B...</i>	recov. time, ↓25.6%...	Characteristics and outcomes of admitted patient...
	Details	Prospective 56 patients in Uganda, 29 HCQ and 27 control, showing 25.6% faster recovery with HC...		
Sep 9 2020	PrEP	<i>Rentsch et al., T...</i>	death, ↑3.0%, p=0.83	Effect of pre-exposure use of hydroxychloroquine ...
	Details	Observational database study of RA/SLE patients in the UK, 194,637 RA/SLE patients with 30,569 h...		
Sep 9 2020	PrEP	<i>Laplana et al., PL...</i>	cases, ↑56.0%, p=0...	Lack of protective effect of chloroquine derivative...
	Details	Survey of 319 autoimmune disease patients taking CQ/HCQ with 5.3% COVID-19 incidence, compa...		
Sep 7 2020	Revi...	<i>IHU, Expert Revie...</i>	review	Natural history and therapeutic options for COVID...
	Details	Review of the current state of knowledge regarding the natural history of and therapeutic options f...		
Sep 5 2020	Late	<i>Synolaki et al., m...</i>	death, ↓23.6%, p=0...	The Activin/Follistatin-axis is severely deregulated...
	Details	Retrospective 117 patients, 58 HCQ showing lower mortality for HCQ patients. Version 1 of this pa...		
Sep 4 2020	Late	<i>Furtado et al., The Lancet, doi:10.1016/S0...</i>		Azithromycin in addition to standard of care versu...
	Details	Small RCT comparing the addition of AZ for very late stage patients on ventilation or oxygen. No si...		
Sep 2 2020	In Vit...	<i>Wang et al., Phyt...</i>	in vitro	Chloroquine and hydroxychloroquine as ACE2 blo...
	Details	In Vitro study providing novel insights into the molecular mechanism of CQ/HCQ treatment, showin...		
Sep 2 2020	Early	<i>Heras et al., Euro...</i>	death, ↓95.6%, p=0...	COVID-19 mortality risk factors in older people in ...
	Details	Retrospective 100 elderly nursing home patients, HCQ+AZ mortality 11.4% vs. control 61.9%, RR 0...		
Sep 2 2020	PrEP	<i>de la Iglesia et al...</i>	hosp., ↑50.0%, p=1....	Hydroxicloroquine for pre-exposure prophylaxis f...
	Details	Analysis of autoimmune disease patients on HCQ, compared to a control group from the general p...		
Sep 1 2020	Revi...	<i>Hecel et al., Phar...</i>	review	Zinc(II)—The Overlooked Éminence Grise of Chlor...
	Details	Review of zinc as an inhibitor of SARS-CoV-2's RNA-dependent RNA polymerase, and zinc ionophor...		
Sep 1 2020	Early	<i>Elbazidi et al., New Microbes and New Infe...</i>		Pandemic and social changes, political fate
	Details	Analysis of US states and countries. Country analysis shows a significant correlation between the ...		
Aug 30 2020	Late	<i>Albani et al., J, Cl...</i>	death, ↓18.4%, p=0...	Impact of Azithromycin and/or Hydroxychloroqui...
	Details	Retrospective 1376 hospitalized patients in Italy, 211 treated with HCQ and 166 with HCQ+AZ.		

Aug 21 2020	Late	<i>Castillo et al., Journal of Steroid Biochemis...</i>	Effect of calcifediol treatment and best available t...
	Details	RCT on calcifediol (25-hydroxyvitamin D) treatment for hospitalized COVID-19 patients showing sig...	
Aug 28 2020	Late	<i>Fried et al., Clinic...</i>	death, ↑27.0%, p<0...
	Details	Database analysis of 11,721 hospitalized patients, 4,232 on HCQ. Strong evidence for confounding ...	Patient Characteristics and Outcomes of 11,721 ...
Aug 27 2020	PrEP	<i>Ferri at al., Clinic...</i>	cases, ↓63.0%, p=0...
	Details	Analysis of 1641 systemic autoimmune disease patients showing csDMARD (HCQ etc.) RR 0.37, p...	COVID-19 and rheumatic autoimmune systemic d...
Aug 26 2020	Late	<i>Fiolet et al., Clini...</i>	meta-analysis
	Details	Meta analysis of late stage studies (and one early treatment study with only 2 deaths), showing HC...	Effect of hydroxychloroquine with or without azith...
Aug 25 2020	Early	<i>Ip et al., BMC Inf...</i>	death, ↓54.5%, p=0...
	Details	Retrospective 1,274 outpatients, 47% reduction in hospitalization with HCQ with propensity matchi...	Hydroxychloroquine in the treatment of outpatient...
Aug 25 2020	Late	<i>Di Castelnuovo e...</i>	death, ↓30.0%, p<0...
	Details	Retrospective 3,451 hospitalized patients, 30% reduction in mortality with HCQ after propensity adj...	Use of hydroxychloroquine in hospitalised COVID-...
Aug 24 2020	Late	<i>Catteau et al., Int...</i>	death, ↓32.0%, p<0...
	Details	Retrospective 8,075 hospitalized patients, 4,542 low-dose HCQ, 3,533 control. 35% lower mortality f...	Low-dose Hydroxychloroquine Therapy and Mort...
Aug 23 2020	Late	<i>Pasquini et al., J...</i>	death, ↓16.4%, p=0...
	Details	Retrospective 51 ICU patients under mechanical ventilation, 33 treated with HCQ, showing unadjus...	Effectiveness of remdesivir in patients with COVI...
Aug 21 2020	Early	<i>Ly et al., Internati...</i>	death, ↓55.6%, p=0...
	Details	Retrospective analysis of retirement homes, HCQ+AZ >= 3 days mortality OR 0.37, p=0.02. 1690 el...	Pattern of SARS-CoV-2 infection among dependa...
Aug 21 2020	N/A	<i>Lane et al., The L...</i>	safety analysis
	Details	Retrospective study of RA patients using HCQ vs. sulfasalazine (another DMARD). HCQ treatment ...	Risk of hydroxychloroquine alone and in combinat...
Aug 21 2020	Late	<i>Gonzalez et al., ...</i>	death, ↓26.6%, p=0...
	Details	Retrospective study focused on eosinophil recovery with 9,644 hospitalized patients in Spain, show...	The Prognostic Value of Eosinophil Recovery in C...
Aug 20 2020	Late	<i>Dubernet et al., J...</i>	ICU, ↓87.6%, p=0.008
	Details	Retrospective analysis of 36 hospitalized patients showing HCQ/AZ associated with lower ICU ad...	A comprehensive strategy for the early treatment ...
Aug 20 2020	Early	<i>Prodromos, C., N...</i>	safety analysis
	Details	Review concluding that HCQ/AZ does not cause Torsade de Pointes or related deaths, HCQ decrea...	Hydroxychloroquine is protective to the heart, not ...

Aug 7 2020	Late Details	<i>Pinato et al., Can...</i>	death, ↓59.0%, p<0...	Clinical portrait of the SARS-CoV-2 epidemic in Eu... Restrospective 890 cancer patients with COVID-19, adjusted mortality HR for HCQ/CQ 0.41, p<0.00...
Aug 15 2020	Late Details	<i>Peters et al., Clini...</i>	death, ↑9.0%, p=0.57	Outcomes of Persons With COVID-19 in Hospitals... Retrospective study of HCQ use in 9 hospitals in the Netherlands, showing no significant difference...
Aug 14 2020	Late Details	<i>Abd-Elsalam et a...</i>	death, ↑20.0%, p=1...	Hydroxychloroquine in the Treatment of COVID-1... Small RCT in Egypt with 97/97 HCQ/control patients, showing 58% more recovery @28days for HC...
Aug 13 2020	Late Details	<i>Roomi et al., J. ...</i>	death, ↑37.7%, p=0...	Efficacy of hydroxychloroquine and tocilizumab in... Retrospective 176 hospitalized patients (144 HCQ, 32 control) showing no significant differences w...
Aug 11 2020	In Sil... Details	<i>Tarek et al., European Journal of Drug Met...</i>		Pharmacokinetic Basis of the Hydroxychloroquine... <i>In Silico</i> analysis of HCQ treatment showing concluding that HCQ may affect viral clearance if admi...
Aug 11 2020	Early Details	<i>Bakhshaliyev et ...</i>	safety analysis	The effect of 5-day course of hydroxychloroquine ... Safety study of 109 patients showing 5 days of HCQ+AZ did not lead to clinically significant QT prol...
Aug 11 2020	Late Details	<i>Saleemi et al., m...</i>	viral- time, ↑21.0%, ...	Time to negative PCR from symptom onset in CO... Retrospective 65 HCQ+AZ, 20 control patients, showing median time to negative PCR of 23 days fo...
Aug 8 2020	Late Details	<i>Lopez et al., Int. J. Antimicrob. Agents, doi:...</i>		Effects of Hydroxychloroquine on Covid-19 in Inte... Small retrospective study of 29 ICU patients comparing those with HCQ plasma concentration with...
Aug 6 2020	PrEP Details	<i>Salvarani et al., A...</i>	cases, ↓6.0%, p=0.75	Susceptibility to COVID-19 in Patients Treated Wit... Comparison of CQ/HCQ users with the general population in a region of Italy, showing no significan...
Aug 6 2020	Revi... Details	<i>McCullough et al...</i>	review	Pathophysiological Basis and Rationale for Early ... Review of pathophysiological principles related to early outpatient treatment and therapeutic appro...
Aug 6 2020	PEP, ... Details	<i>Watanabe et al., ...</i>	meta-analysis	Concerns regarding the misinterpretation of statis... Open letter signed by 38 professors and doctors regarding misinterpretation of statistics in HCQ R...
Aug 5 2020	PrEP Details	<i>Singer et al., Ann...</i>	cases, ↑9.0%, p=0.62	Hydroxychloroquine ineffective for COVID-19 prop... Comparison of the percentage of SLE/RA patients on immunosuppressants that were taking HCQ, ...
Aug 5 2020	Late Details	<i>Kalligeros et al., ...</i>	death, ↑67.0%, p=0...	Hydroxychloroquine use in hospitalised patients ... Small retrospective database analysis of 36 patients receiving HCQ not showing significant differe...

Aug 4 2020	Late	<i>Kamran et al., m...</i>	progression, ↓5.0%,...	Clearing the fog: Is HCQ effective in reducing COV...
	Details	Study of 349 low-risk hospitalized patients with 151 non-consenting or ineligible patients used as c...		
Aug 3 2020	Late	<i>Berenguer et al., ...</i>	death, ↓18.2%, p=0...	Characteristics and predictors of death among 40...
	Details	Retrospective 4035 hospitalized patients in Spain showing reduced mortality with HCQ (data is in t...		
Aug 3 2020	Late	<i>Yu et al., Science...</i>	progression, ↓82.5...	Beneficial effects exerted by hydroxychloroquine i...
	Details	Retrospective 2,882 patients in China, median age 62, 278 receiving HCQ, median 10 days post hos...		
Aug 2 2020	Late	<i>Davido et al., Int. ...</i>	int./hosp., ↓55.0%, ...	Impact of medical care including anti-infective ag...
	Details	Retrospective of 132 hospitalized patients. HCQ+AZ(52)/AZ(28) significantly reduced death/ICU, H...		
Aug 2 2020	In Vit...	<i>Sheaff, R., bioRxi...</i>	<i>in vitro</i>	A New Model of SARS-CoV-2 Infection Based on (...)
	Details	<i>In Vitro</i> study presenting a new theory on SARS-CoV-2 infection and why HCQ/CQ provides benefits...		
Aug 1 2020	Early	<i>Bernabeu-Wittel ...</i>	death, ↓59.0%, p=0...	Effectiveness of a On-Site Medicalization Progra...
	Details	Retrospective 272 nursing home residents showing significantly improved survival after establishin...		
Jul 31 2020		<i>Mazzitelli et al., Travel Medicine and Infecti...</i>		Apparent inefficacy of hydroxychloroquine combi...
	Details	Report on HCQ+AZ use in 41 elderly high-risk patients. 29 of 30 patients with treatment >= 5 days s...		
Jul 29 2020	Late	<i>D'Arminio Monfo...</i>	death, ↓34.0%, p=0...	Effectiveness of Hydroxychloroquine in COVID-19 ...
	Details	HCQ+AZ adjusted death HR 0.44, p=0.009. Propensity scores include baseline COVID-19 disease s...		
Jul 28 2020	Late	<i>Başaran et al., Turk. J. Med. Sci., doi:10.39...</i>		Outcome of Non-Critical COVID-19 Patients with ...
	Details	Observational study of 174 hospitalized patients in Turkey, median age 45.4, 23 treated with HCQ, 1...		
Jul 26 2020	PEP	<i>Mitjà et al., NEJ...</i>	death, ↓51.7%, p=0...	A Cluster-Randomized Trial of Hydroxychloroquin...
	Details	Death rate reduced from 0.6% to 0.4%, RR 0.68, not statistically significant due to low incidence (8 c...		
Jul 24 2020	PrEP	<i>Khurana et al., m...</i>	cases, ↓51.0%, p=0...	Prevalence and clinical correlates of COVID-19 ou...
	Details	Study of hospital health care workers showing HCQ prophylaxis reduces COVID-19 significantly, OR...		
Jul 23 2020	Late	<i>Cavalcanti et al., ...</i>	death, ↓16.0%, p=0...	Hydroxychloroquine with or without Azithromycin ...
	Details	Late stage RCT of 667 hospitalized patients with up to 14 days of symptoms at enrollment and rec...		
Jul 22 2020	PrEP	<i>Kadnur et al., SS...</i>	cases, ↓86.3%, p=0...	Hydroxychloroquine Pre-Exposure Prophylaxis for...
	Details	Prophylaxis study with 334 low-risk healthcare workers in India, showing significantly lower risk of ...		

Jul 22 2020	In Vit...	<i>Ou et al., PLOS P...</i>	<i>in vitro</i>	Hydroxychloroquine-mediated inhibition of SARS-...	
	Details	In Vitro analysis showing that HCQ efficiently blocks viral entry mediated by cathepsin L, but not by ...			
Jul 22 2020	In Vit...	<i>Hoffmann et al., ...</i>	<i>in vitro</i>	Chloroquine does not inhibit infection of human lu...	
	Details	The title of this paper does not appear to match the results. Fig. 1b @100uM shows CQ results in a...			
Jul 22 2020	Late	<i>Rivera et al., Can...</i>	death, ↑12.4%, p=0.90	Utilization of COVID-19 Treatments and Clinical O...	
	Details	Retrospective cancer patients, showing adjusted OR 1.03 [0.62-1.73] for HCQ. The study reports th...			
Jul 22 2020	Late	<i>Kelly et al., Britis...</i>	death, ↑143.0%, p=...	Clinical outcomes and adverse events in patients ...	
	Details	Retrospective 82 hospitalized patients HCQ/AZ, 52 SOC, not finding statistically significant differen...			
Jul 21 2020	Late	<i>Bernaola et al., ...</i>	death, ↓17.0%, p<0...	Observational Study of the Efficiency of Treatmen...	
	Details	HCQ HR 0.83 [0.77-0.89] based on propensity score matched retrospective analysis of 1,645 hospit...			
Jul 20 2020	Late	<i>Krishnan et al., J ...</i>	death, ↓20.4%, p=0...	Clinical comorbidities, characteristics, and outco...	
	Details	Retrospective 152 mechanically ventilated patients in the USA showing unadjusted lower mortality ...			
Jul 20 2020	PrEP	<i>Desbois et al., Re...</i>	cases, ↓16.9%, p=1...	Prevalence and clinical features of COVID-19 in a l...	
	Details	Retrospective 199 sarcoidosis patients showing non-statistically significant HCQ RR 0.83, p=1.0.			
Jul 20 2020	Early	<i>Risch, H., Americ...</i>	meta-analysis	Response to: "Early Outpatient Treatment of Sym...	
	Details	Updated meta analysis including 7 new studies of high-risk outpatients, for a total of 12 studies, all ...			
Jul 18 2020	PEP	<i>Watanabe, M., ar...</i>	meta-analysis	Efficacy of Hydroxychloroquine as Prophylaxis for...	
	Details	Secondary analysis of Boulware et al.'s PEP trial and treatment delay-response data, confirming tha...			
Jul 19 2020	Late	<i>McGrail et al., m...</i>	death, ↑70.0%, p=0...	COVID-19 Case Series at UnityPoint Health St. Luk...	
	Details	HCQ+AZ early in the epidemic had a fairly good success rate with few complications, 86% of HCQ ...			
Jul 17 2020	Late	<i>Lyngbakken et al...</i>	death, ↓3.7%, p=1.00	A pragmatic randomized controlled trial reports la...	
	Details	Small RCT of nasopharyngeal viral load not showing significant differences. The rate of reduction f...			
Jul 16 2020	Early	<i>Hong et al., Infec...</i>	viral+, ↓64.9%, p=0...	Early Hydroxychloroquine Administration for Rapi...	
	Details	HCQ 1-4 days from diagnosis was the only protective factor against prolonged viral shedding found...			
Jul 16 2020	Early	<i>Skipper et al., An...</i>	hosp./death, ↓36.7...	Hydroxychloroquine in Nonhospitalized Adults Wit...	
	Details	~70 to 140 hour (inc. shipping) delayed outpatient treatment with HCQ showing lower hospitalizati...			

Jul 16 2020	Early Details	Mitjà et al., Clin...	hosp., ↓16.0%, p=0...	Hydroxychloroquine for Early Treatment of Adults ... This paper has conflicting values, table S2 shows 12 control hospitalizations, while table 2 shows 1...
Jul 15 2020	Late Details	Gupta et al., JAM...	death, ↑6.0%, p=0.41	Factors Associated With Death in Critically Ill Pati... Analysis of 2215 intensive care unit patients showing no significant differences with this very late s...
Jul 15 2020	N/A Details	Kavanagh et al., ...	dosing study	Inhaled hydroxychloroquine to improve efficacy a... Proposal to use an inhaled formulation of HCQ which has passed safety studies in clinical trials for ...
Jul 14 2020	Late Details	Trullàs et al., Res...	death, ↓35.6%, p=0...	High in-hospital mortality due to COVID-19 in a co... Retrospective 100 hospitalized patients in Spain showing lower mortality with HCQ+AZ.
Jul 14 2020	Early Details	Chowdhury et al., Eurasian Journal of Medi...		A Randomized Trial of Ivermectin-Doxycycline an... Small 116 patient RCT comparing ivermectin+doxycycline and HCQ+AZ, not showing a significant ...
Jul 11 2020	Late Details	Lecronier et al., ...	death, ↓42.0%, p=0...	Comparison of hydroxychloroquine, lopinavir/rito... Retrospective 80 ICU patients, 22 SOC, 20 lopinavir/ritonavir, 38 HCQ. 28 day mortality 24% (HCQ) v...
Jul 10 2020	Late Details	Cravedi et al., A...	death, ↑53.0%, p=0...	COVID-19 and kidney transplantation: Results fro... Analysis of 144 hospitalized kidney transplant patients showing HCQ mortality HR 1.53, p = 0.17. S...
Jul 10 2020	Late Details	Chen et al., PLoS...	viral+, ↓24.0%, p=0...	A Multicenter, randomized, open-label, controlled t... 2 very small studies with hospitalized patients in Taiwan. RCT with 21 treatment and 12 SOC patien...
Jul 9 2020	Late Details	Rivera-Izquierdo ...	death, ↓19.0%, p=0...	Agentes terapéuticos utilizados en 238 pacientes ... Retrospective 238 hospitalized patients in Spain showing lower mortality with HCQ, adjusted hazar...
Jul 9 2020	Early,... Details	Raoult et al., Pre...	meta-analysis	Hydroxychloroquine and Azithromycin as a Treat... Updated meta analysis showing significant reductions in mortality and viral shedding. Mortality OR ...
Jul 8 2020	N/A Details	Marzolini et al., A...	dosing study	Effect of Systemic Inflammatory Response to SA... Study of Lopinivar and HCQ plasma concentrations and CRP levels in late stage (treatment initiatio...
Jul 8 2020	Revi... Details	Li et al., Cell Deat...	review	Is hydroxychloroquine beneficial for COVID-19 pat... Review of the anti-inflammatory, antiviral, and protective vascular effects of CQ and HCQ, noting th...
Jul 7 2020	Revi... Details	Goldstein, L., Pre...	review	Hydroxychloroquine-based COVID-19 Treatment, ... 85% of globally surveyed physicians recognized HCQ as at least partially effective in treating COVID...

Jul 7 2020	Late Details	<i>An et al., medRxiv</i>	viral+, ↓3.0%, p=0.92	Treatment Response to Hydroxychloroquine and ... Retrospective of hospitalized patients with 31 HCQ patients and 195 standard treatment patients, n...
Jul 3 2020	PrEP Details	<i>Zhong et al., Lan...</i>	cases, ↓91.0%, p=0...	COVID-19 in patients with rheumatic disease in H... Rheumatic disease patients on HCQ had a lower risk of COVID-19 than those on other disease-mo...
Jul 7 2020	Late Details	<i>Arshad et al., Int...</i>	death, ↓51.3%, p=0....	Treatment with Hydroxychloroquine, Azithromycin... HCQ decreases mortality from 26.4% to 13.5% (HCQ) or 20.1% (HCQ+AZ). Propensity matched HC...
Jul 7 2020	N/A Details	<i>Samuel et al., He...</i>	safety analysis	Incidence of arrhythmias and electrocardiographi... In pediatric patients with PCR positive active COVID-19 infection, significant arrhythmias are infreq...
Jun 30 2020	Late Details	<i>Martinez-Lopez ...</i>	death, ↓33.0%, p=0....	Multiple Myeloma and SARS-CoV-2 Infection: Clini... Retrospective 167 multiple myeloma patients in Spain.
Jun 30 2020	Late Details	<i>Mikami et al., J. ...</i>	death, ↓47.0%, p<0....	Risk Factors for Mortality in Patients with COVID-... HCQ decreases mortality, HR 0.53 (CI 0.41-0.67). IPTW adjustment does not significantly change ...
Jun 30 2020	Late Details	<i>Komissarov et al...</i>	viral load, ↑25.0%, ...	Hydroxychloroquine has no effect on SARS-CoV-2... Small late stage (7-10 days post symptoms) study of nasal swab RNA with 12 control and 33 patie...
Jun 29 2020	Late Details	<i>Sosa-García et al...</i>	death, ↑10.5%, p=1....	Experience in the management of severe COVID-1... Small retrospective study of 56 ICU patients in Mexico showing HCQ RR 1.1, p = 1.0.
Jun 29 2020	PrEP Details	<i>Ferreira et al., J. ...</i>	cases, ↓47.1%, p<0....	Chronic treatment with hydroxychloroquine and S... Chronic treatment with HCQ provides protection against COVID, odds ratio 0.51 (0.37-0.70). The ac...
Jun 29 2020	N/A Details	<i>Mfeukeu-Kuate e...</i>	safety analysis	Electrocardiographic safety of daily Hydroxychlor... No life-threatening modifications of the QT interval was observed in non-severe COVID-19 patients ...
Jun 25 2020	PrEP Details	<i>Gendebien et al., ...</i>	cases, ↓3.9%, p=0.93	Systematic analysis of COVID-19 infection and sy... Small study of 152 SLE patients taking HCQ with a phone survey for COVID-19 suggestive sympto...
Jun 25 2020	Late Details	<i>Lagier et al., Trav...</i>	death, ↓59.0%, p=0....	Outcomes of 3,737 COVID-19 patients treated wit... Early treatment leads to significantly better clinical outcome and faster viral load reduction. Matche...
Jun 23 2020	Late Details	<i>Bousquet et al., ...</i>	death, ↓42.8%, p=0....	ADL-dependency, D-Dimers, LDH and absence of ... Observational prospective 108 hospitalized patients 65 and older, showing HCQ mortality OR 0.49, ...

Jun 24 2020	Safety Details	<i>Isaksen et al., m...</i> Safety analysis in patients without COVID-19, finding a small increase in QTc associated with use o...	safety analysis	Chloroquine, but not hydroxychloroquine, prolongs ...
Jun 22 2020	Late Details	<i>Fontana et al., Cli...</i> Very small observational study of 15 dialysis patients showing HCQ mortality RR 0.50, $p = 0.53$.	death, ↓50.0%, $p=0...$	SARS-CoV-2 infection in dialysis patients in north...
Jun 22 2020	Early Details	<i>Chen et al., med...</i> Significantly faster clinical recovery and shorter time to RNA negative (from 7.0 days to 2.0 days (H...	viral- time, ↓72.0%, ...	Efficacy and safety of chloroquine or hydroxychlor...
Jun 21 2020	Late Details	<i>Faíco-Filho et al.,...</i> Viral load comparison for 34 HCQ and 32 control patients hospitalized with moderate COVID-19. All...	viral rate, ↓80.8%, $p...$	No benefit of hydroxychloroquine on SARS-CoV-2 ...
Jun 19 2020	PrEP Details	<i>SMSH Sawai Ma...</i> PrEP with 4,300 very high risk healthcare workers in a hospital with up to 500+ COVID patients at a ...	news	HCQ beneficial as preventive drug: SMS doctors t...
Jun 19 2020	Late Details	<i>NIH, study not av...</i> NIH halts late stage trial reporting no harm and no benefit. 470 patients.	news	NIH halts clinical trial of hydroxychloroquine
Jun 19 2020	Late Details	<i>Sbidian et al., me...</i> Retrospective of 4,642 hospitalized patients in France showing significantly faster discharge with H...	death, ↑5.0%, $p=0.74$	Hydroxychloroquine with or without azithromycin ...
Jun 19 2020	Ani... Details	<i>Kaptein et al., bio...</i> Animal study with Syrian hamsters, showing treatment of SARS-CoV-2-infected hamsters with favi...	animal study	Favipiravir at high doses has potent antiviral activi...
Jun 18 2020	Late Details	<i>Paccoud et al., C...</i> Retrospective of 89 hospitalized patients, survival HR 0.89 [0.23-3.47], not statistically significant. A...	death, ↓11.0%, $p=0...$	Compassionate use of hydroxychloroquine in clini...
Jun 17 2020	Early Details	<i>Capucci et al., J. Cardiovasc. Med. 21, 922...</i> Prospective analysis of early treatment of 350 patients in Italy (without waiting for PCR results), sh...		Low hospitalization rate without severe arrhythmi...
Jun 17 2020	Late Details	<i>Xue et al., J. Med. Virology, June 17, 2020, ...</i> 30 hospitalized patients. Early use of HCQ is more effective, 43% reduction in progression from mo...		Hydroxychloroquine treatment in COVID-19: a des...
Jun 17 2020	Late Details	<i>Luo et al., Annals...</i> Analysis of hospitalized lung cancer patients with 35 of 48 taking HCQ, mortality OR 1.03, $p = 0.99$.	death, ↑2.2%, $p=0.99$	COVID-19 in patients with lung cancer
Jun 16 2020	Late Details	<i>Kim et al., Korean J Intern Med, doi:10.390...</i> Small retrospective study of hospitalized patients with 31 lopinavir-ritonavir and 34 HCQ patients, H...		Lopinavir-ritonavir versus hydroxychloroquine for ...

Jun 11 2020	PrEP	WHIP COVID-19 ...	news	Henry Ford Health System still moving forward wi...
	Details	Ongoing WHIP COVID-19 HCQ PrEP study reports analyzing their data and seeing a significantly im...		
Jun 16 2020	PrEP	Huang et al., Ann...	hosp., ↓80.0%, p<0...	Clinical characteristics of 17 patients with COVID...
	Details	Analysis of 1255 COVID-19 patients in Wuhan Tongji Hospital finding 0.61% with systemic autoim...		
Jun 12 2020	Theo...	Scherrmann, AA...	theory	Intracellular ABCB1 as a Possible Mechanism to E...
	Details	Theory paper, not included in the study count or percentages. Proposes a new mechanism supporti...		
Jun 12 2020	Late	Giacomelli et al., Journal of Medical Virolo...		Early administration of lopinavir/ritonavir plus hyd...
	Details	Late stage study of hospitalized patients comparing treatment starting within 5 days versus later. ...		
Jun 10 2020	Late	Wang et al., med...	death, ↓5.8%, p=0.63	Comorbidity and Sociodemographic determinant...
	Details	Database analysis of 7,592 patients in NYC, showing adjusted HCQ mortality odds ratio OR 0.96, p ...		
Jun 10 2020	Early	Otea et al., medRxiv, doi:10.1101/2020.06...		A short therapeutic regimen based on hydroxychl...
	Details	80 moderate cases, HCQ+AZ appears to reduce serious complications and death. Moderate treat...		
Jun 9 2020	Early	Pirnay et al., Hosp. Pharm. and Clinician, d...		Beneficial effect of Hydroxychloroquine-Azithrom...
	Details	68 very high risk nursing home residents, median age 86, HCQ+AZ early treatment within 2.5 days ...		
Jun 9 2020	PrEP	Bhattacharya et ...	cases, ↓80.7%, p=0...	Pre exposure Hydroxychloroquine use is associat...
	Details	HCQ reduced cases from 38% to 7%. 106 people. No serious adverse effects.		
Jun 6 2020	Revi...	Roussel et al., N...	review	Influence of conflicts of interest on public position...
	Details	Shows a correlation (Spearman test, $p = 0.017$) between the amount received from Gilead Sciences...		
Jun 6 2020	Early,...	Million et al., Ne...	meta-analysis	Clinical Efficacy of Chloroquine derivatives in COV...
	Details	[H]CQ effective and reduces mortality by a factor 3. Meta analysis of 20 studies.		
Jun 5 2020	Late	RECOVERY Colla...	death, ↑9.0%, p=0.15	Effect of Hydroxychloroquine in Hospitalized Pati...
	Details	RECOVERY trial finds no significant benefit for very late stage very sick patients. Results may be du...		
Jun 3 2020	PEP	Boulware et al., ...	cases, ↓17.0%, p=0...	A Randomized Trial of Hydroxychloroquine as Po...
	Details	COVID-19 cases are reduced by [49%, 29%, 16%] respectively when taken within ~[70, 94, 118] hour...		
Jun 1 2020	N/A	Al-Kofahi et al., C...	dosing study	Finding the Dose for Hydroxychloroquine Prophyl...
	Details	Analysis of HCQ dosing regimens, recommending: PrEP: 800mg loading dose followed by 400mg 2...		

May 3 2020	Early	<i>Guérin et al., Asi...</i>	death, ↓61.4%, p=1....	Azithromycin and Hydroxychloroquine Accelerate ...
	Details	Mean clinical recovery time reduced from 26 days (SOC) to 9 days, $p < 0.0001$ (HCQ+AZ) or 13 days,...		
May 29 2020	Late	<i>Rogado et al., Lu...</i>	death, ↓91.6%, p=0....	Covid-19 and lung cancer: A greater fatality rate?
	Details	Retrospective 17 hospitalized lung cancer patients showing lower mortality with HCQ+AZ treatment.		
May 28 2020	Late	<i>Chamieh et al., medRxiv 2020.05.28.20114...</i>		Viral Dynamics Matter in COVID-19 Pneumonia: th...
	Details	HCQ+AZ potentially explains 94.7% success in treating a fairly complex cohort.		
May 28 2020	PrEP	<i>Chatterjee et al., ...</i>	cases, ↓66.8%, p<0....	Healthcare workers & SARS-CoV-2 infection in Ind...
	Details	4+ doses of HCQ associated with a significant decline in the odds of getting infected, dose-respons...		
May 28 2020	Late	<i>Huang et al., Nati...</i>	viral- time, ↓67.0%, ...	Preliminary evidence from a multicenter prospecti...
	Details	197 CQ patients, 176 control. Mean time to undetectable viral RNA and duration of fever significantl...		
May 27 2020	Late	<i>Goldman et al., N...</i>	death, ↓22.3%, p=0....	Remdesivir for 5 or 10 Days in Patients with Sever...
	Details	Study focused on remdesivir but with results for HCQ in the supplementary appendix, showing 9% ...		
May 28 2020	Late	<i>Kuderer et al., La...</i>	death, ↑134.2%, p<...	Clinical impact of COVID-19 on patients with canc...
	Details	Retrospective 928 cancer patients, showing HCQ OR 1.06 [0.51-2.20]. HCQ+AZ OR 2.93 [1.79-4.79]. ...		
May 28 2020	PrEP	<i>Gianfrancesco e...</i>	hosp., ↓3.3%, p=0.82	Characteristics associated with hospitalisation fo...
	Details	Analysis of rheumatic disease patients showing no significant association between antimalarial th...		
May 27 2020	Early	<i>Risch, American ...</i>	meta-analysis	Early Outpatient Treatment of Symptomatic, High...
	Details	Five studies, including two controlled clinical trials, have demonstrated significant outpatient treat...		
May 25 2020	Late	<i>Ip et al., PLoS O...</i>	death, ↓1.0%, p=0.93	Hydroxychloroquine and Tocilizumab Therapy in ...
	Details	Retrospective study of late stage use on 2,512 hospitalized patients showing no significant differen...		
May 24 2020	Late	<i>Hraiech et al., An...</i>	death, ↓64.7%, p=0....	Lack of viral clearance by the combination of hydr...
	Details	Retrospective 45 ICU patients, 17 treated with HCQ+AZ, showing no significant difference in viral cl...		
May 22 2020	PEP, ...	<i>ICMR, Indian Co...</i>	advisory	Revised advisory on the use of Hydroxychloroquin...
	Details	Healthcare workers on HCQ prophylaxis less likely to get COVID. Significant dose-response relation...		
May 22 2020	Late	<i>Mehra et al., The ...</i>	retracted	Hydroxychloroquine or chloroquine with or withou...
	Details	Incorrect at first read (implausible death, ventilation, and population numbers). This paper was retr...		

May 7, 2020	Late	<i>Singh et al., med...</i>	death, ↓5.0%, p=0.72	Outcomes of Hydroxychloroquine Treatment Amo...
	Details	EHR analysis of 3,372 hospitalized COVID-19 patients not showing a significant difference for mort...		
May 7, 2020	Late	<i>Kim et al., medR...</i>	hosp. time, ↓51.0%,...	Treatment Response to Hydroxychloroquine, Lopi...
	Details	Retrospective of 97 moderate cases. Time to viral clearance significantly shorter for HCQ+antibioti...		
May 7, 2020	Early	<i>Ahmad et al., doi:10.1101/2020.05.18.200...</i>		Doxycycline and Hydroxychloroquine as Treatmen...
	Details	54 patients in long term care facilities. 6% death with HCQ+AZ compared to 22% using a naive indir...		
May 6, 2020	PrEP	<i>Macias et al., me...</i>	hosp., ↓25.5%, p=1....	Similar incidence of Coronavirus Disease 2019 (C...
	Details	Very small retrospective study of rheumatic disease patients, sample size is too small for statistica...		
May 5, 2020	Late	<i>Yu et al., Science...</i>	death, ↓60.5%, p=0....	Low Dose of Hydroxychloroquine Reduces Fatalit...
	Details	Retrospective, 550 critically ill patients. 19% fatality for HCQ versus 47% for non-HCQ, RR 0.395, p=...		
May 4, 2020	Late	<i>Mahévas et al., B...</i>	death, ↑20.0%, p=0....	Clinical efficacy of hydroxychloroquine in patients ...
	Details	Observational study of 181 patients with advanced disease requiring oxygen showing no benefit fo...		
May 3, 2020	Late	<i>Okour et al., Journal of Pharmacokinetics ...</i>		Hydroxychloroquine and azithromycin as potentia...
	Details	Odds of PCR-positive decrease by 53% for each unit increase in HCQ log-concentration. Similarly, t...		
May 2, 2020	PrEP	<i>Cassione et al., A...</i>	cases, ↑49.6%, p=0...	COVID-19 infection in a northern-Italian cohort of ...
	Details	Survey of 165 SLE patients, 127 on HCQ. 8 patients with suspected COVID-19 and 4 confirmed cas...		
May 1, 2020	Late	<i>Shabrawishi et al...</i>	viral+, ↓14.7%, p=0....	Negative nasopharyngeal SARS-CoV-2 PCR conve...
	Details	Retrospective 93 hospitalized patients in Saudi Arabia showing a non-statistically significant 15% r...		
May 1, 2020	Late	<i>Rosenberg et al.,...</i>	death, ↑35.0%, p=0....	Association of Treatment With Hydroxychloroquin...
	Details	Restrospective observational late stage study showing no significant differences but calling for clin...		
May 10, 2020	Late	<i>Alberici et al., Kid...</i>	death, ↓42.9%, p=0....	A report from the Brescia Renal COVID Task Forc...
	Details	Analysis of 94 hemodialysis COVID-19 positive patients. Reduction in death seen with HCQ but p=0...		
May 8, 2020	Ex Vi...	<i>Grassin-Delyle et...</i>	ex vivo	Chloroquine Inhibits the Release of Inflammatory ...
	Details	On human lung parenchymal explants, CQ concentration clinically achievable in the lung (100 µM) i...		
May 8, 2020	Late	<i>Carlucci et al., J. Med. Microbiol., Sep 15, 2...</i>		Zinc sulfate in combination with a zinc ionophore ...
	Details	Retrospective 932 patients showing that the addition of zinc to HCQ+AZ reduced mortality / transf...		

May 7 2020	PrEP	Konig et al., Ann...	hosp., ↓3.0%, p=0.88	Baseline use of hydroxychloroquine in systemic lu...
	Details	Analysis of 80 SLE patients diagnosed with COVID-19, showing the frequency of hospitalisation did...		
May 7 2020	Theo...	Derendorf, H., Int...	theory	Excessive lysosomal ion-trapping of hydroxychlor...
	Details	Discusses pharmacokinetic properties of HCQ+AZ as a potential underlying mechanism of the obs...		
May 7 2020	Late	Geleris et al., NE...	int./death, ↑14.0%, p...	Observational Study of Hydroxychloroquine in Ho...
	Details	There appears to be a major error in this paper. Before propensity matching, 38 control patients ha...		
May 7 2020	N/A	Sermo (News)	news	Sermo reports: COVID-19 treatment trends over 6 ...
	Details	HCQ used by 55% of physicians worldwide for COVID. Survey of 6,150 physicians.		
May 6 2020	Ani...	Maisonnasse et ...	animal study	Hydroxychloroquine use against SARS-CoV-2 infe...
	Details	Monkey study which reports no effect of HCQ or HCQ+AZ. However, there are several signs of effec...		
May 5 2020	Late	Membrillo de No...	death, ↓55.1%, p=0....	Early Hydroxychloroquine Is Associated with an In...
	Details	166 patients hospitalised with COVID-19, HCQ increased survival 1.4 - 1.8 times when patients adm...		
May 5 2020	Early,...	Million et al., Travel Med Infect Dis., 2020...		Early Treatment of COVID-19 Patients With Hydro...
	Details	Retrospective 1061 patients. HCQ+AZ safe and results in a low fatality rate.		
May 5 2020	PrEP	Gendelman et al...	cases, ↓8.1%, p=0.88	Continuous Hydroxychloroquine or Colchicine Th...
	Details	Very small study of rheumatic disease/autoimmune disorder patients showing no significant differ...		
May 5 2020	PrEP	Mitchell et al., SS...	death, ↓99.0%, p<0...	Markedly Lower Rates of Coronavirus Infection an...
	Details	Analysis of COVID-19 amongst 2.4B people shows a wide counterintuitive disparity between well-d...		
May 4 2020	PrEP	Huh et al., medR...	cases, ↑147.7%, p=0...	Association of previous medications with the risk ...
	Details	Database analysis of many drugs and COVID-19 cases, with 23 cases taking HCQ, and 251 control ...		
May 2 2020	Late	Mallat et al., Med...	viral- time, ↑1203.0%...	Hydroxychloroquine is associated with slower vira...
	Details	Very small retrospective analysis of 34 patients finding slower binary PCR viral clearance with HCQ...		
May 7 2020	N/A	Mercuro et al., J...	safety analysis	Risk of QT Interval Prolongation Associated With ...
	Details	Study of 90 hospitalized patients given HCQ, 53 also receiving AZ, 53% hypertension, 29% diabetes ...		
May 7 2020	N/A	Bessière et al., J...	safety analysis	Assessment of QT Intervals in a Case Series of Pa...
	Details	Study of 40 very serious condition ICU patients, 75% required invasive mechanical ventilation, 63% r...		

May 2 2020	Late	Seydi (News)	news	Coronavirus: a study in Senegal confirms the effe...
	Details	Preliminary results of Senegal trial with 181 patients showing faster recovery with HCQ, and even f...		
Apr 30 2020	Early	Meo et al., Eur. Rev. Med. Pharmacol. Sci. 2...		Efficacy of chloroquine and hydroxychloroquine in...
	Details	Analysis of COVID-19 and malaria, finding that COVID-19 is highly pandemic in countries where mal...		
Apr 27 2020	Late	Sánchez-Álvarez...	death, ↓45.9%, p=0...	Status of SARS-CoV-2 infection in patients on ren...
	Details	Analysis of 868 patients on renal replacement therapy. Statistically significant reduction in mortalit...		
Apr 29 2020	N/A	Saleh et al., Circu...	safety analysis	The Effect of Chloroquine, Hydroxychloroquine an...
	Details	201 hospitalized patients. No serious side effects of HCQ. No instances of Torsade de pointes, or a...		
Apr 27 2020	N/A	Klimke et al., Me...	dosing study	Hydroxychloroquine as an aerosol might markedl...
	Details	Proposal to use HCQ as an aerosol in order to reach sufficient therapeutic levels at the alveolar epit...		
Apr 26 2020	Late	Auld et al., Critic...	death, ↑2.8%, p=1.00	ICU and ventilator mortality among critically ill ad...
	Details	Retrospective 217 critically ill patients, 114 receiving HCQ, showing no significant difference in mor...		
Apr 25 2020	In Vit...	Andreani et al., ...	in vitro	In vitro testing of combined hydroxychloroquine a...
	Details	HCQ and AZ has a synergistic effect <i>in vitro</i> on SARS-CoV-2 at concentrations compatible with that...		
Apr 24 2020	Early	Ashraf et al., me...	death, ↓67.5%, p=0...	COVID-19 in Iran, a comprehensive investigation f...
	Details	Small limited trial with 100 patients concluding that HCQ improved clinical outcome, OR 0.016 [0.0...		
Apr 21 2020	Late	Izoulet M., SSRN,...	death, ↓85.0%, p<0...	Countries which Primarily Use Antimalarial Drugs ...
	Details	Compares the dynamics of daily deaths in the 10 days following the 3rd death in countries using a...		
Apr 21 2020	Late	Magagnoli et al., ...	death, ↓11.0%, p=0...	Outcomes of hydroxychloroquine usage in United ...
	Details	Retrospective 807 hospitalized patients, no statistically significant reduction in mortality or the nee...		
Apr 17 2020	PEP	Lee at al., Int. J. Antimicrob. Agents, 2020, ...		Can Post-Exposure Prophylaxis for COVID-19 Be ...
	Details	Post exposure prophylaxis of 211 high-risk people after major exposure event in a long term care h...		
Apr 16 2020	Late	Borba et al., JAMA Network Open, doi:10.1...		Chloroquine diphosphate in two different dosages...
	Details	Comparison of typical CQ dosage with high dosage CQ (600mg CQ twice daily for 10 days), showin...		
Apr 15 2020	Early,...	Esper et al., Prev...	hosp., ↓64.0%, p=0...	Empirical treatment with hydroxychloroquine and ...
	Details	636 patients. HCQ+AZ reduced hospitalization 79% when used within 7 days (65% overall). Non-ran...		

Apr 14 2020	Theo...	Brufsky, A., J. Me...	theory	Hyperglycemia, hydroxychloroquine, and the COVI...
	Details	Theory on the effectiveness of HCQ. HCQ has been shown to block the polarization of macrophage...		
Apr 14 2020	Late	Tang et al., BMJ ...	viral+, ↓21.4%, p=0...	Hydroxychloroquine in patients with COVID-19: an...
	Details	150 patients very late stage RCT showing no significant difference. Treatment very late, average 16...		
Apr 13 2020	Revi...	Gao et al., Biosci...	review	Update on Use of Chloroquine/Hydroxychloroquin...
	Details	Increasing evidence from completed clinical studies shows CQ and HCQ effective (HCQ more effec...		
Apr 12 2020	Late	Barbosa et al., Pr...	death, ↑147.0%, p=...	Clinical outcomes of hydroxychloroquine in hospit...
	Details	Small retrospective study with 63 patients (32 treated with HCQ), showing no effectiveness, howev...		
Apr 11 2020	Early	Gautret et al., Travel Medicine and Infectio...		Clinical and microbiological effect of a combinati...
	Details	Pilot study suggesting improvement with HCQ+AZ and recommending further study. 80 patients wi...		
Apr 10 2020	Late	Lover, medRxiv, ...	meta-analysis	Quantifying treatment effects of hydroxychloroqui...
	Details	Secondary analysis of Gautret et al. showing "modest to no impact of HCQ treatment, with more si...		
Apr 3 2020	Theo...	Fantini et al., Int ...	theory	Structural and molecular modelling studies reveal...
	Details	In-silico analysis confirming the antiviral properties of CQ, showing a new mechanism of action of ...		
Apr 1 2020	Early	Huang et al., Jou...	no recov., ↓91.7%, ...	Treating COVID-19 with Chloroquine
	Details	22 patients. All CQ patients discharged by day 14 versus 50% of Lopinavir/Rotinavir patients. Symp...		
Mar 31 2020	Late	Chen et al., med...	pneumonia, ↓57.0%...	Efficacy of hydroxychloroquine in patients with C...
	Details	62 patients. RCT showing significantly faster recovery with HCQ. 13% progressed to severe cases i...		
Mar 31 2020	In Vit...	Clementi et al., F...	in vitro	Combined Prophylactic and Therapeutic Use Max...
	Details	In Vitro study showing greater inhibition for combined pre and post-exposure treatment for Vero E6...		
Mar 28 2020	Late	Molina et al., Médecine et Maladies Infecti...		No evidence of rapid antiviral clearance or clinical ...
	Details	Report on 11 patients treated with HCQ with no control group. Authors suggest there is no evidenc...		
Mar 26 2020	Late	Zhong Nanshan ...	viral+, ↓80.0%, p<0...	Efficacy and safety of chloroquine for treatment o...
	Details	197 patients. CQ effective. Day 10 viral RNA negative 91.4% HCQ versus 57.4% control. Median tim...		
Mar 24 2020	Theo...	Pagliano et al., C...	theory	Is Hydroxychloroquine a Possible Post-Exposure ...
	Details	CQ and HCQ inhibit replication at early stages of infection, no similar effect reported for other drug...		

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Mar 2, 2020	Theo... Details	Hu et al., Nature ...	theory	Insights from nanomedicine into chloroquine effic... CQ is known in nanomedicine research for the investigation of nanoparticle uptake in cells, and ma...
Mar 21 2020	PrEP Details	ICMR, Indian Co...	advisory	Advisory on the use of hydroxy-chloroquine as pr... Recommends HCQ for prophylaxis in asymptomatic healthcare workers as found effective in-vitro ...
Mar 20 2020	Late Details	Hu et al., Shangh...	news	Shanghai Experience of COVID-19 Management Clinical studies of HCQ with 184 cases and 21 hospitals show HCQ is effective.
Mar 18 2020	In Vit... Details	Liu et al., Cell Dis...	in vitro	Hydroxychloroquine, a less toxic derivative of chlo... <i>In Vitro</i> study showing that HCQ is effective <i>in vitro</i> and less toxic than CQ. In addition to direct anti...
Mar 17 2020	Early Details	Gautret et al., Int...	viral+, ↓66.0%, p=0...	Hydroxychloroquine and azithromycin as a treatm... HCQ was significantly associated with reduction / elimination of viral load, which was enhanced wi...
Mar 17 2020	Revi... Details	Sahraei et al., Int...	review	Aminoquinolines against coronavirus disease 201... Discussion of mechanisms of action, CQ vs. HCQ, early studies, safety.
Mar 13 2020	Revi... Details	Todaro and Riga...	review	An Effective Treatment for Coronavirus (COVID-19) Discussion of existing research, treatment guidelines, and mechanisms of action for CQ and HCQ, r...
Mar 12 2020	Theo... Details	Devaux et al., Int...	theory	New insights on the antiviral effects of chloroquin... Discusses mechanisms of CQ interference with the SARS-CoV-2 replication cycle.
Mar 10 2020	N/A Details	Cortegiani et al., ...	meta-analysis	A Systematic Review on the Efficacy and Safety o... Review of six articles and 23 ongoing clinical trials in China recommending research and clinical us...
Mar 9 2020	In Vit... Details	Yao et al., Clin. In...	in vitro	In Vitro Antiviral Activity and Projection of Optimiz... <i>In Vitro</i> study showing that HCQ is more potent than CQ <i>in vitro</i> for inhibiting SARS-CoV-2. Simulate...
Mar 6 2020	Late Details	Chen et al., J. Zh...	progression, ↓29.0...	A pilot study of hydroxychloroquine in treatment o... 30 moderate hospitalized cases, all recovered. Time to RNA negative comparable. Less frequent ra...
Mar 4 2020	Revi... Details	Colson et al., Int ...	review	Chloroquine and Hydroxychloroquine as Available... Recommending CQ and HCQ for COVID-19 based on 20 clinical studies in China and a strong ratio...
Feb 20 2020	Late Details	Jiang et al., Chin. J. Tuberc. Respir. Dis., 20...		Expert Consensus on Chloroquine Phosphate for ... Early trials in China show CQ results in shorter hospital stays and improved patient outcomes.

Feb 11 2020	Late	Gao et al., BioScience Trends, 2020, doi:10...	Breakthrough: Chloroquine phosphate has shown ...
	Details	Results from 15 clinical trials in China showing CQ is effective.	
Feb 17 2020	Late	Sun, Y., deputy h...	news Antimalarial drug confirmed effective on COVID-19
	Details	HCQ under clinical trials in >10 hospitals in China and has shown fairly good efficacy.	
Feb 17 2020	Late	Xia et al., ChiCTR...	viral+, ↓37.5%, p=0... Efficacy of Chloroquine and Lopinavir/ Ritonavir in...
	Details	Early results from a very small trial, reported within the application for a later trial. Very minimal det...	
Feb 4 2020	In Vit...	Wang et al., Cell ...	in vitro Remdesivir and chloroquine effectively inhibit the ...
	Details	In Vitro study showing that Remdesivir and CQ potently blocked SARS-CoV-2 infection.	
2017	N/A	Chhonker et al., ...	dosing study Simultaneous quantitation of hydroxychloroquine ...
	Details	Presents a method for quantification of HCQ in mouse blood and tissues. They show a lung conce...	
2014	Ani...	Browning, D., Ph...	animal study Pharmacology of Chloroquine and Hydroxychloro...
	Details	Review of the pharmacology of CQ and HCQ. Some notable points: - HCQ and CQ are equipotent b...	
2014	In Vit...	de Wilde et al., A...	in vitro Screening of an FDA-Approved Compound Library...
	Details	CQ inhibits SARS-CoV, MERS-CoV, and HCoV-229E-GFP replication in the low-micromolar range.	
2012	Ani...	Yan et al., Cell Re...	animal study Anti-malaria drug chloroquine is highly effective in...
	Details	CQ, a known autophagy inhibitor that is in clinical use, can efficiently ameliorate acute lung injury a...	
2009	Ani...	Keyaerts et al., A...	animal study Antiviral Activity of Chloroquine against Human C...
	Details	CQ inhibits HCoV-OC43 replication in HRT-18 cells. A lethal HCoV-OC43 infection in newborn C57B...	
2008	In Vit...	Kono et al., Antivi...	in vitro Inhibition of human coronavirus 229E infection in ...
	Details	CQ significantly decreased viral replication of HCoV-229E at concentrations lower than in clinical us...	
2006	In Vit...	Savarino et al., L...	in vitro New insights into the antiviral effects of chloroqui...
	Details	Update to 2003 paper, not included in the study count or percentages. Hypothesis of CQ inhibiting ...	
2005	In Vit...	Vincent et al., Vir...	in vitro Chloroquine is a potent inhibitor of SARS coronavi...
	Details	In Vitro study, SARS-CoV-1, not included in the study count or percentages. CQ has strong antiviral ...	
2004	In Vit...	Keyaerts et al., Bi...	in vitro In vitro inhibition of severe acute respiratory syndr...
	Details	In Vitro study, SARS-CoV-1, not included in the study count or percentages. IC ₅₀ of CQ for antiviral a...	

2003	Theo...	Savarino et al., L...	theory	Effects of chloroquine on viral infections: an old dr...
	Details	Not included in the study count or percentages. Discussion/review noting that CQ exerts antiviral ef...		
1978	N/A	Burrows, E., Medical Record, 97:6, 235, Feb...		A confirmatory report upon the abortive action of ...
	Details	Quinine was found to be effective for the Spanish Flu in 1918.		
1901	N/A	Yeo, B., 1901 (Peer Reviewed)		A manual of medical treatment or clinical therape...
	Details	Quinine is referred to as "the remedy that is most deserving of confidence in the treatment of influen...		
1894	Ani...	Mossé, Lancet, ...	animal study	Pathogenesis and Treatment of Influenza
	Details	Lancet study showing quinine protected rabbits from influenza and recommending use for prophyl...		
1890	N/A	Le Grelot (News)	news	Quinine use for the Russian influenza pandemic if...
	Details	Quinine and antipyrine, a bitherapy for defying death during the Russian influenza pandemic of 188...		
1889	N/A	Edwin Wiley Gro...	news	Laxative Bromo Quinine
	Details	Quinine has been used for respiratory infections since 1889. Not included in the study count or per...		

For search methods, inclusion criteria, effect extraction criteria (more serious outcomes have priority), PRISMA answers, and statistical methods see [hcqmeta.com](https://c19hcq.com). Meta, Theory, Safety, Review, News, and Retracted items are not included in the study count. There is a total of 430 items. Studies with preprints and journal versions are listed under the earlier preprint date.