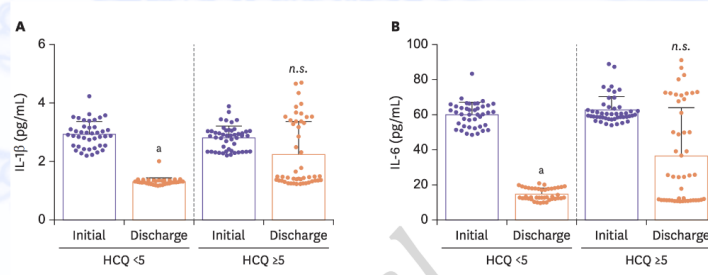


UNDER ATTACK

HCQ study #63

7/16 Early treatment **Positive** *Hong et al., Infect. Chemother., 2020, ...*
 HCQ 1-4 days from diagnosis was the only protective factor against prolonged viral shedding found, OR 0.111, p=0.001....



PrEP **100%** PEP **100%** Early **100%** Late **62%** **All 75%** 72 studies (42 peer reviewed)

Global HCQ studies. PrEP, PEP, and early treatment studies show high effectiveness, while late treatment shows mixed results.

8/11	Negative	Late	<i>Saleemi et al., me...</i>	Time to negative PCR from symptom on... Retrospective 65 HCQ+AZ, 20 control patients, showing median time to n...
8/4	Positive (news)	Late	<i>Iacoviello et al., up...</i>	INTERVIEW EXCLUSIVE : Efficacité de l'h... Upcoming study of 3,451 hospitalized patients in Italy reports that HCQ r...
8/3	Positive	Late	<i>Yu et al., Science C...</i>	Beneficial effects exerted by hydroxychlo... Retrospective 2,882 patients in China, median age 62, 278 receiving HCQ,...
8/4	Inconc.	Late	<i>Kamran et al., med...</i>	Clearing the fog: Is HCQ effective in redu... Study of 349 low-risk hospitalized patients with 151 non-consenting or in...
8/2	Positive	Late	<i>Davido et al., Int. J...</i>	Impact of medical care including anti-inf... Retrospective of 132 hospitalized patients. HCQ+AZ significantly reduces...
8/2	In Vitro	In Vit...	<i>Sheaff, R., bioRxiv, ...</i>	A New Model of SARS-CoV-2 Infection B... In vitro study presenting a new theory on SARS-CoV-2 infection and why ...

7/29	Positive	Late	<i>D'Arminio Monfort...</i>	Effectiveness of Hydroxychloroquine in C... HCQ+AZ adjusted death HR 0.44, p=0.009. Propensity scores include bas...
7/26	Inconc.	PEP	<i>Mitjà et al., medRx...</i>	A Cluster-Randomized Trial of Hydroxych... Death rate reduced from 0.6% to 0.4%, RR 0.68, not statistically significan...
7/24	Positive	PrEP	<i>Khurana et al., me...</i>	Prevalence and clinical correlates of COV... Study of hospital health care workers showing HCQ prophylaxis reduces ...
7/23	Negative	Late	<i>Cavalcanti et al., N...</i>	Hydroxychloroquine with or without Azit... Late stage RCT of 667 hospitalized patients with up to 14 days of sympto...
7/22	In Vitro	In Vit...	<i>Hoffmann et al., N...</i>	Chloroquine does not inhibit infection of ... The title of this paper does not appear to match the results. Fig. 1b @100...
7/21	Positive	Late	<i>Bernaola et al., me...</i>	Observational Study of the Efficiency of T... HCQ HR 0.83 [0.77-0.89] based on propensity score matched retrospectiv...
7/20	Meta (positive)	Early	<i>Risch, H., America...</i>	Response to: "Early Outpatient Treatmen... Updated meta analysis including 7 new studies of high-risk outpatients, f...
7/18	Meta (positive)	PEP	<i>Watanabe, M., arXi...</i>	Efficacy of Hydroxychloroquine as Proph... Secondary analysis of Boulware et al.'s PEP trial and treatment delay-resp...
7/16	Positive	Early	<i>Hong et al., Infect. ...</i>	Early Hydroxychloroquine Administration... HCQ 1-4 days from diagnosis was the only protective factor against prolo...
7/16	Inconc.	Early	<i>Skipper et al., Ann...</i>	Hydroxychloroquine in Nonhospitalized A... ~70 to 140 hour (inc. shipping) delayed outpatient treatment with HCQ re...
7/16	Inconc.	Early	<i>Mitjà et al., Clinical...</i>	Hydroxychloroquine for Early Treatment ... This paper has inconsistent data - some of the values reported in Table 2 ...
7/9	Meta (positive)	Early,...	<i>Raoult et al., Prepri...</i>	Hydroxychloroquine and Azithromycin as... Updated meta analysis showing significant reductions in mortality and vir...
7/7	Negative	Late	<i>An et al., medRxiv, ...</i>	Treatment Response to Hydroxychloroqu... Retrospective of hospitalized patients with 31 HCQ patients and 195 stan...

7/3	Positive	PrEP <i>Zhong et al., Lanc...</i> COVID-19 in patients with rheumatic dise... Rheumatic disease patients on HCQ had a lower risk of COVID-19 than th...
7/3	Positive	Early <i>Scholz et al., Prepr...</i> COVID-19 Outpatients – Early Risk-Strati... Early treatment with HCQ+AZ+Z results in 84% lower hospitalization and ...
7/1	Positive	Late <i>Arshad et al., Int. J...</i> Treatment with Hydroxychloroquine, Azit... HCQ decreases mortality from 26.4% to 13.5% (HCQ) or 20.1% (HCQ+AZ)...
7/1	Safety	N/A <i>Samuel et al., Hear...</i> Incidence of arrhythmias and electrocard... In pediatric patients with PCR positive active COVID-19 infection, significa...
6/30	Positive	Late <i>Mikami et al., J. G...</i> Risk Factors for Mortality in Patients wit... HCQ decreases mortality, HR 0.53 (CI 0.41–0.67). IPTW adjustment does ...
6/29	Positive	PrEP <i>Ferreira et al., J. M...</i> Chronic treatment with hydroxychloroqui... Chronic treatment with HCQ provides protection against COVID, odds rati...
6/29	Safety	N/A <i>Mfeukeu-Kuate et ...</i> Electrocardiographic safety of daily Hydr... No life-threatening modifications of the QT interval was observed in non-s...
6/25	Positive	Early <i>Lagier et al., Travel...</i> Outcomes of 3,737 COVID-19 patients tr... Early treatment leads to significantly better clinical outcome and faster vir...
6/22	In Vitro	In Vit... <i>Wang et al., bioRxi...</i> Chloroquine and hydroxychloroquine as ... In vitro study, not included in the study count or percentages. CQ and HC...
6/22	Positive	Early <i>Chen et al., medRx...</i> Efficacy and safety of chloroquine or hyd... Significantly faster clinical recovery and shorter time to RNA negative (fro...
6/19	Positive (news)	PrEP <i>SMSH Sawai Man ...</i> HCQ beneficial as preventive drug: SMS ... PrEP with 4,300 very high risk healthcare workers in a hospital with up to ...
6/19	Negative (news)	Late <i>NIH, study not avai...</i> NIH halts clinical trial of hydroxychloroqu... NIH halts late stage trial reporting no harm and no benefit. 470 patients.
6/19	Positive	Late <i>Sbidian et al., med...</i> Hydroxychloroquine with or without azith... Retrospective of 4,642 hospitalized patients in France showing significant...
6/18	Inconc.	Late <i>Paccoud et al., Cli...</i> Compassionate use of hydroxychloroqui...

Retrospective of 89 hospitalized patients, survival HR 0.89 [0.23-3.47], not...

6/17	Positive	Late	<i>Xue et al., J. Med. ...</i>	Hydroxychloroquine treatment in COVID-... 30 hospitalized patients. Early use of HCQ is more effective, 43% reductio...
6/17	Negative (news)	Late	<i>World Health Orga...</i>	"Solidarity" clinical trial for COVID-19 trea... WHO stopped the Solidarity late stage trial of HCQ reporting no benefit. L...
6/16	Positive (news)	PrEP	<i>WHIP COVID-19 (...</i>	Henry Ford Health System still moving fo... Ongoing WHIP COVID-19 HCQ PrEP study reports analyzing their data an...
6/12	Theory	Theo...	<i>Scherrmann, AAP...</i>	Intracellular ABCB1 as a Possible Mecha... Theory paper, not included in the study count or percentages. Proposes a ...
6/12	Negative	Late	<i>Giacomelli et al., ...</i>	Early administration of lopinavir/ritonavir... Late stage study of hospitalized patients comparing treatment starting wi...
6/10	Positive	Early	<i>Otea et al., medRxi...</i>	A short therapeutic regimen based on hy... 80 moderate cases, HCQ+AZ appears to reduce serious complications an...
6/9	Positive	Late	<i>Pirnay et al., Hosp...</i>	Beneficial effect of Hydroxychloroquine-... 68 very high risk nursing home residents, median age 86, HCQ+AZ early tr...
6/9	Positive	PrEP	<i>Bhattacharya et al...</i>	Pre exposure Hydroxychloroquine use is ... HCQ reduced cases from 38% to 7%. 106 people. No serious adverse effe...
6/6	Meta (positive)	Early,...	<i>Million et al., New ...</i>	Clinical Efficacy of Chloroquine derivative... [H]CQ effective and reduces mortality by a factor 3. Meta analysis of 20 st...
6/5	Negative	Late	<i>Horby et al., medR...</i>	Effect of Hydroxychloroquine in Hospitali... RECOVERY trial reports no significant benefit seen for very late stage very...
6/3	Positive (see notes)	PEP	<i>Boulware et al., NE...</i>	A Randomized Trial of Hydroxychloroqui... COVID-19 cases are reduced by [49%, 29%, 16%] respectively when taken ...
5/31	Positive	Early	<i>Guérin et al., Asian...</i>	Azithromycin and Hydroxychloroquine A... Mean clinical recovery time reduced from 26 days (SOC) to 9 days, p<0.0...
5/29	Positive	Late	<i>Ayerbe et al., Jour...</i>	The association between treatment with ... 2075 hospital patients in Spain. HCQ reduces mortality from 30% to 13%. ...

5/28	Positive	Late <i>Chamieh et al., me...</i> Viral Dynamics Matter in COVID-19 Pneu... HCQ+AZ potentially explains 94.7% success in treating a fairly complex c...
5/28	Positive	PrEP <i>Chatterjee et al., In...</i> Healthcare workers & SARS-CoV-2 infecti... 4+ doses of HCQ associated with a significant decline in the odds of getti...
5/28	Positive	Late <i>Huang et al., Natio...</i> Preliminary evidence from a multicenter ... 197 CQ patients, 176 control. Mean time to undetectable viral RNA and d...
5/27	Meta	Early <i>Risch, American J...</i> Early Outpatient Treatment of Symptom... Five studies, including two controlled clinical trials, have demonstrated si...
5/25	Negative	Late <i>Ip et al., medRxiv, ...</i> Hydroxychloroquine and Tocilizumab Th... Retrospective study of late stage use on 2,512 hospitalized patients show...
5/22	Positive (advisory)	PEP, ... <i>ICMR, Indian Coun...</i> Revised advisory on the use of Hydroxychlor... Healthcare workers on HCQ prophylaxis less likely to get COVID. Significa...
5/22	Retracted	Late <i>Mehra et al., The L...</i> Hydroxychloroquine or chloroquine with ... Incorrect at first read (implausible death, ventilation, and population num...
5/20	Meta (negative)	Late <i>Chacko et al., med...</i> Hydroxychloroquine in COVID-19: A syste... Meta analysis not seeing a significant effect other than time to resolution ...
5/19	Negative	Late <i>Singh et al., medR...</i> Outcomes of Hydroxychloroquine Treat... EHR analysis of 3,372 hospitalized COVID-19 patients not showing a signi...
5/18	Positive	Late <i>Kim et al., medRxiv...</i> Treatment Response to Hydroxychloroqu... Retrospective of 97 moderate cases. Time to viral clearance significantly ...
5/18	Positive	Early <i>Ahmad et al., doi:1...</i> Doxycycline and Hydroxychloroquine as ... 54 patients in long term care facilities. 6% death with HCQ+AZ compared ...
5/16	Inconc.	PrEP <i>Macias et al., med...</i> Similar incidence of Coronavirus Disease... Very small retrospective study of rheumatic disease patients, sample size...
5/15	Positive	Late <i>Yu et al., Science C...</i> Low Dose of Hydroxychloroquine Reduc... Retrospective, 550 critically ill patients. 19% fatality for HCQ versus 47% f...
5/14	Negative	

		Late	<i>Mahévas et al., B...</i>	Clinical efficacy of hydroxychloroquine in... Observational study of 181 patients with advanced disease requiring oxy...
5/13	Positive	Late	<i>Okour et al., Journ...</i>	Hydroxychloroquine and azithromycin as... Odds of PCR-positive decrease by 53% for each unit increase in HCQ log-...
5/11	Negative	Late	<i>Rosenberg et al., J...</i>	Association of Treatment With Hydroxychlor... Restrospective observational late stage study showing no significant diff...
5/10	Positive	Late	<i>Alberici et al., Kidn...</i>	A report from the Brescia Renal COVID T... Analysis of 94 hemodialysis COVID-19 positive patients. Reduction in dea...
5/8	Inconc.	Late	<i>Carlucci et al., doi:...</i>	Hydroxychloroquine and azithromycin pl... Observational retrospective. Addition of Zinc to HCQ+AZ reduces mortality.
5/7	Theory	Theo...	<i>Derendorf, H., Int. ...</i>	Excessive lysosomal ion-trapping of hydr... Discusses pharmacokinetic properties of HCQ+AZ as a potential underlyi...
5/7	Inconc.	Late	<i>Geleris et al., NEJ...</i>	Observational Study of Hydroxychloroqui... There appears to be a major error in this paper. Before propensity matchi...
5/7	Positive (news)	N/A	<i>Sermo (News) (no...</i>	Sermo reports: COVID-19 treatment tren... HCQ used by 55% of physicians worldwide for COVID. Survey of 6,150 ph...
5/6	Animal	Anim...	<i>Maisonasse et al...</i>	Hydroxychloroquine use against SARS-C... Monkey study which reports no effect of HCQ or HCQ+AZ. However, there...
5/5	Positive	Late	<i>Membrillo de Nov...</i>	Early Hydroxychloroquine Is Associated ... 166 patients hospitalised with COVID-19, HCQ increased survival 1.4 - 1.8...
5/5	Positive	Early,...	<i>Million et al., Trave...</i>	Early Treatment of COVID-19 Patients Wi... Retrospective 1061 patients. HCQ+AZ safe and results in a low fatality rat...
5/5	Inconc.	PrEP	<i>Gendelman et al., ...</i>	Continuous Hydroxychloroquine or Colch... Very small study of rheumatic disease/autoimmune disorder patients sh...
5/5	Positive	PrEP	<i>Mitchell et al., SSR...</i>	Markedly Lower Rates of Coronavirus Inf... Analysis of COVID-19 amongst 2.4B people shows a wide counterintuitive...
5/1	Safety	N/A	<i>Mercuro et al., JA...</i>	Risk of QT Interval Prolongation Associat...

			Study of 90 hospitalized patients given HCQ, 53 also receiving AZ, 53% hy...
5/1	Safety	N/A	<i>Bessière et al., JA...</i> Assessment of QT Intervals in a Case Se... Study of 40 very serious condition ICU patients, 75% required invasive me...
5/2	Positive (news)	Late	<i>Seydi (News) (not ...</i> Coronavirus: a study in Senegal confirms... Preliminary results of Senegal trial with 181 patients showing faster recov...
4/30	Positive	Early	<i>Meo et al., Eur. Rev...</i> Efficacy of chloroquine and hydroxychlor... Analysis of COVID-19 and malaria, finding that COVID-19 is highly pande...
4/29	Safety	N/A	<i>Saleh et al., Circul...</i> The Effect of Chloroquine, Hydroxychloro... 201 hospitalized patients. No serious side effects of HCQ. No instances o...
4/25	In Vitro	In Vit...	<i>Andreani et al., Mi...</i> In vitro testing of combined hydroxychlor... HCQ and AZ has a synergistic effect in vitro on SARS-CoV-2 at concentrat...
4/24	Inconc.	Early	<i>Ashraf et al., med...</i> COVID-19 in Iran, a comprehensive inves... Small limited trial with 100 patients concluding that HCQ improved clinica...
4/21	Positive	Early	<i>Izoulet M., SSRN, ...</i> Countries which Primarily Use Antimalari... Compares the dynamics of daily deaths in the 10 days following the 3rd d...
4/21	Negative	Late	<i>Magagnoli et al., ...</i> Outcomes of hydroxychloroquine usage i... Retrospective 368 hospitalized patients, no significant reduction in mortal...
4/17	Positive	PEP	<i>Lee at al., Int. J. An...</i> Can Post-Exposure Prophylaxis for COVI... Post exposure prophylaxis of 211 high-risk people after major exposure e...
4/16	Negative	Late	<i>Borba et al., JAMA...</i> Chloroquine diphosphate in two different... Increased incidence of prolonged QT and death in high dose treatment ar...
4/15	Positive	Early	<i>Esper et al., Preve...</i> Empirical treatment with hydroxychloroq... 636 patients. HCQ+AZ reduced hospitalization 79% when used within 7 d...
4/15	Theory	Theo...	<i>Brufsky, A., J. Med...</i> Hyperglycemia, hydroxychloroquine, and ... Theory on the effectiveness of HCQ. HCQ has been shown to block the p...
4/14	Negative	Late	<i>Tang et al., BMJ 2...</i> Hydroxychloroquine in patients with COV... 150 patients very late stage RCT. No significant difference. More sympto...

4/13	Positive	Late <i>Gao et al., Biosci T...</i> Update on Use of Chloroquine/Hydroxychlor Increasing evidence from completed clinical studies shows CQ and HCQ ...
4/12	Negative	Late <i>Barbosa et al., Pre...</i> Clinical outcomes of hydroxychloroquine... Small retrospective study with 63 patients (32 treated with HCQ), showin...
4/11	Positive	Early <i>Gautret et al., Trav...</i> Clinical and microbiological effect of a c... Pilot study suggesting improvement with HCQ+AZ and recommending fu...
4/10	Meta (negative)	Late <i>Lover, medRxiv, do...</i> Quantifying treatment effects of hydroxy... Secondary analysis of Gautret et al. showing "modest to no impact of HC...
4/1	Positive	Late <i>Huang et al., Journ...</i> Treating COVID-19 with Chloroquine 22 patients. All CQ patients discharged by day 14 versus 50% of Lopinavir...
3/31	Positive	Late <i>Chen et al., medRx...</i> Efficacy of hydroxychloroquine in patient... 62 patients. RCT showing significantly faster recovery with HCQ. 13% pro...
3/31	In Vitro	In Vit... <i>Clementi et al., Fro...</i> Combined Prophylactic and Therapeutic ... In vitro study, not included in the study count or percentages, showing gre...
3/28	Negative	Late <i>Molina et al., Méd...</i> No evidence of rapid antiviral clearance o... 11 patients with severe cases. No evidence of benefit for HCQ.
3/26	Positive (news)	Late <i>Zhong Nanshan (...)</i> Efficacy and safety of chloroquine for tre... 197 patients. HCQ effective. Viral RNA negative in 95.9% versus 79.6% co...
3/24	Theory	Theo... <i>Pagliano et al., Cli...</i> Is Hydroxychloroquine a Possible Post-E... CQ and HCQ inhibit replication at early stages of infection, no similar effe...
3/23	Theory	Theo... <i>Hu et al., Nature N...</i> Insights from nanomedicine into chloroq... CQ is known in nanomedicine research for the investigation of nanopartic...
3/21	Positive (advisory)	PrEP <i>ICMR, Indian Coun...</i> Advisory on the use of hydroxy-chloroqui... Recommends HCQ for prophylaxis in asymptomatic healthcare workers ...
3/20	Positive (news)	Late <i>Hu et al., Shanghai...</i> Shanghai Experience of COVID-19 Mana... Clinical studies of HCQ with 184 cases and 21 hospitals show HCQ is eff...
3/18	In Vitro	

		In Vit...	<i>Liu et al., Cell Disc...</i>	Hydroxychloroquine, a less toxic derivativ... HCQ effective <i>in vitro</i> and less toxic than CQ. In addition to direct antiviral ...
3/17	Positive	Early	<i>Gautret et al., Int. J...</i>	Hydroxychloroquine and azithromycin as... HCQ significantly associated with viral load reduction / elimination, enhan...
3/17	Review	N/A	<i>Sahraei et al., Int. ...</i>	Aminoquinolines against coronavirus dis... Discussion of mechanisms of action, CQ vs. HCQ, early studies, safety.
3/13	Review	N/A	<i>Todaro and Rigan...</i>	An Effective Treatment for Coronavirus (... Discussion of existing research, treatment guidelines, and mechanisms o...
3/12	Theory	Theo...	<i>Devaux et al., Inter...</i>	New insights on the antiviral effects of chlor... Discusses mechanisms of CQ interference with the SARS-CoV-2 replicati...
3/10	Meta (positive)	N/A	<i>Cortegiani et al., J...</i>	A Systematic Review on the Efficacy and... Review of six articles and 23 ongoing clinical trials in China recommendin...
3/9	In Vitro	N/A	<i>Yao et al., Clin. Inf...</i>	In Vitro Antiviral Activity and Projection o... HCQ is more potent than CQ in vitro for inhibiting SARS-CoV-2. Simulates ...
3/6	Negative	Late	<i>Chen et al., J. Zheji...</i>	A pilot study of hydroxychloroquine in tre... 30 moderate hospitalized cases, all recovered. Time to RNA negative co...
3/4	Positive	Late	<i>Colson et al., Int J...</i>	Chloroquine and Hydroxychloroquine as ... Recommending CQ and HCQ for COVID-19 based on 20 clinical studies in...
2/20	Positive	Late	<i>Jiang et al., Chin. J...</i>	Expert Consensus on Chloroquine Phosp... Early trials in China show CQ results in shorter hospital stays and improv...
2/19	Positive	Late	<i>Gao et al., BioScie...</i>	Breakthrough: Chloroquine phosphate ha... Results from 15 clinical trials in China showing CQ is effective.
2/17	Positive (news)	Late	<i>Sun Yanrong, depu...</i>	Antimalarial drug confirmed effective on ... HCQ under clinical trials in >10 hospitals in China and has shown fairly go...
2/4	In Vitro	In Vit...	<i>Wang et al., Cell R...</i>	Remdesivir and chloroquine effectively in... In vitro study, not included in the study count or percentages. Remdesivir ...
2014	In Vitro	In Vit...	<i>de Wilde et al., Ant...</i>	Screening of an FDA-Approved Compoun...

			CQ inhibits SARS-CoV, MERS-CoV, and HCoV-229E-GFP replication in the l...
2012	Animal	Anim... <i>Yan et al., Cell Res...</i>	Anti-malaria drug chloroquine is highly ef... CQ, a known autophagy inhibitor that is in clinical use, can efficiently amel...
2009	Animal	Anim... <i>Keyaerts et al., Ant...</i>	Antiviral Activity of Chloroquine against ... CQ inhibits HCoV-OC43 replication in HRT-18 cells. A lethal HCoV-OC43 in...
2008	In Vitro	In Vit... <i>Kono et al., Antivir...</i>	Inhibition of human coronavirus 229E inf... CQ significantly decreased viral replication of HCoV-229E at concentratio...
2006	In Vitro	In Vit... <i>Savarino et al., Lan...</i>	New insights into the antiviral effects of ... Update to 2003 paper, not included in the study count or percentages. Hy...
2005	In Vitro	In Vit... <i>Vincent et al., Virol...</i>	Chloroquine is a potent inhibitor of SARS... <i>In vitro</i> study, SARS-CoV-1, not included in the study count or percentages...
2004	In Vitro	In Vit... <i>Keyaerts et al., Bio...</i>	In vitro inhibition of severe acute respirat... <i>In vitro</i> study, SARS-CoV-1, not included in the study count or percentages...
2003	Theory	Theo... <i>Savarino et al., Lan...</i>	Effects of chloroquine on viral infections:... Not included in the study count or percentages. Discussion/review noting...
1889	Inconc. (news)	N/A <i>Edwin Wiley Grove...</i>	Laxative Bromo Quinine Quinine has been used for respiratory infections since 1889. Not included...

Note: In Vitro, Meta, Theory, Safety, Review, News, and Retracted items are not included in the percentages and study count. There is a total of 121 items. Positive/negative effects vary in degree and certainty, please read the papers or descriptions thereof for more details. Every study has some limitations when considered in isolation (for example confounding factors; sub-optimal treatment regimens; dosing regimens that may be too low, too high, or insufficiently account for the long half-life of HCQ; large treatment delays; small sample sizes; lack of focus on severity; reliance on Internet surveys; and patient characteristics very different from the most at-risk population).

Frequently Asked Questions

Please send us corrections, updates, comments.

Feedback

Submit

 Share  Tweet @CovidAnalysis