

IVERMECTIN TRIALS and STUDIES

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1	Nov-23	Late	Ozer et al., Journal of Medical Virology, doi:10.1002/jmv.27469 (Peer Reviewed) Details: Small prospective PSM study in the USA, showing 75% lower mortality with ivermectin treatment, without reaching statistical significance, significantly shorter ventilation and ICU time, and longer hospitalization time. Authors leave the ...	death, ↓75.0%, p=0.09	Effectiveness and Safety of Ivermectin in COVID-19 Patients: A Prospective Study at A Safety-Net Hospital
2	Nov-17	PrEPPEP	Samadior et al., Journal of the Association of Physicians India, 69:11 (Peer Reviewed) Details: Physician survey in India with 164 ivermectin prophylaxis, 129 HCQ prophylaxis, and 81 control patients, showing significantly lower COVID-19 cases with treatment. Details of the treatment and control groups, and the definition of cases ar...	cases, ↓79.8%, p<0.0001	Ivermectin and Hydroxychloroquine for Chemo-Prophylaxis of COVID-19: A Questionnaire Survey of Perception and Prescribing Practice of Physicians vis-a-vis Outcomes
3	Nov-09	Late	Stone et al., Research Square, doi:10.21203/rs.3.rs-1048271/v1 (Preprint) Details: Retrospective severe COVID-19 patients in Zimbabwe treated with ivermectin, doxycycline, and zinc. For 34 with SpO2 tracking, there was rapid improvement in SpO2, with 55% recovery towards SpO2>97 within 12 hours. For all 92 severe cases...	Rapid increase of SpO2 on room air for 34 severe COVID-19 patients after ivermectin-based combination treatment: 55-62% normalization within 12-24 hours	
4	Nov-03	Late	Malaysia Ministry of Health (News) Details: RCT 490 hospitalized patients in Malaysia, showing no significant differences. There was only 13 deaths, 3 for ivermectin and 10 for control. Minimal details are available currently. Group sizes are not provided (241/249 are the closest ...	death, ↓69.1%, p=0.09	Kenyataan Akhbar KPK 3 November 2021 – Hasil Dapatan Kajian Keberkesanan Rawatan Ivermectin Untuk Pesakit COVID-19 Berisiko Tinggi (I-TECH Study)
5	Oct-28	PrEPPEP	Verma et al., Indian Journal of Community Health, 33:3 (Peer Reviewed) Details: Survey of 306 healthcare workers involved in the medication of COVID-19 patients in India. 71% indicated that ivermectin had a protective effect for COVID-19.		Assessing Knowledge, Attitude, and Practices towards Ivermectin Pre-exposure Prophylaxis for COVID-19 among Health Care Workers
6	Oct-20	Review	Law et al., Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease, doi:10.1016/j.bbdis.2021.166294 (Peer Reviewed) Details: Review of the antiviral characteristics of ivermectin and mechanisms of action. Authors note that ivermectin has proven effective for HIV-1, Adenovirus, flu, SARS-CoV, and more, due to genomic similarity between SARS-CoV-2 and SARS-CoV-1.	review	Repositioning Ivermectin for Covid-19 treatment: Molecular mechanisms of action against SARS-CoV-2 replication
7	Oct-19	Early	Barody et al., TrialsSite News (Preprint) Details: Retrospective 600 PCR+ outpatients in Australia treated with ivermectin, zinc, and doxycycline, showing significantly lower mortality and hospitalization with treatment. This trial uses a synthetic control group, and the preliminary repor...	death, ↓92.3%, p=0.03	Combination Therapy For COVID-19 Based on Ivermectin in an Australian Population
8	Oct-15	In Vitro	Segatori et al., Viruses, doi:10.3390/v13102084 (Peer Reviewed) (In Vitro) Details: Gene expression analysis of nasopharyngeal swabs of COVID-19 positive and negative patients, and in vitro study supporting the use of ivermectin and atorvastatin for COVID-19, and the efficacy of ivermectin at clinically relevant dosages...	<i>in vitro</i>	Effect of Ivermectin and Atorvastatin on Nuclear Localization of Importin Alpha and Drug Target Expression Profiling in Host Cells from Nasopharyngeal Swabs of SARS-CoV-2-Positive Patients
9	Oct-14	In Vitro	Itabam et al., Research Square, doi:10.21203/rs.3.rs-941811/v1 (Peer Reviewed) (In Vitro) Details: In Vitro study showing a strong synergistic effect of ivermectin and Favipiravir. Combining multiple antiviral drugs with different mechanisms of action helps to minimize drug resistance and toxicity.	<i>in vitro</i>	Favipiravir and Ivermectin Showed In Vitro Synergistic Antiviral Activity against SARS-CoV-2
10	Oct-14	News	Goodkin, M. (News) Details: Discussion of flaws in ivermectin trials creating a bias towards not finding an effect.	news	Are Major Ivermectin Studies Designed for Failure?
11	Oct-07	Review	Fordham et al., OSF Preprints, doi:10.31219/osf.io/mp4f2 (Review) (Preprint) Details: Analysis of defects in the Popp et al. meta-analysis.	review	The uses and abuses of systematic reviews
12	Oct-05	In Silico	Francés-Monerris et al., Physical Chemistry Chemical Physics, doi:10.1039/D1CP02967C (Peer Reviewed) Details: In Silico molecular dynamics study showing that ACE2 and ACE2/RBD aggregates form persistent interactions with ivermectin.		Microscopic interactions between ivermectin and key human and viral proteins involved in SARS-CoV-2 infection
13	Oct-02	N/A	Trialsite News (News) Details: Report on Twitter's censorship of the British Ivermectin Recommendation Development group.	news	Committed to Medical Evidence, a Prominent Ivermectin Group is Eradicated from the Memories of Cyberspace
14	Oct-01	Late	Babalola et al., Research Square, doi:10.21203/rs.3.rs-950352/v1 (Preprint) Details: Small RCT with 61 patients in Nigeria, all patients treated with ivermectin, zinc, and vitamin C, showing no significant improvements in recovery with the addition of HCQ+AZ. PACTR202108891693522.		A Randomized Controlled Trial of Ivermectin Monotherapy Versus Hydroxychloroquine, Ivermectin, and Azithromycin Combination Therapy in Covid-19 Patients in Nigeria
15	Sep-23	Early	Mayer et al., Zenodo, doi:10.5281/zenodo.5525362 (Preprint) Details: Retrospective 21,232 patients in Argentina, 3,266 assigned to ivermectin treatment, showing lower mortality with treatment. Greater benefits were seen for patients >40, and a dose dependent response was found.	death, ↓55.1%, p<0.0001	Safety and efficacy of a MEURI Program for the use of high dose ivermectin in COVID-19 patients
16	Sep-07	News	Scheim, D., Trialsite News (News) Details: Discussion of Merck's ivermectin statements and past actions related to Vioxx raising significant concerns.	news	Merck's deadly Vioxx playbook, redux: a debunked smear campaign against its competing drug—the FDA-approved, Nobel prize-honored ivermectin
17	Sep-06	Early	Buonfrate et al., SSRN, doi:10.2139/ssrn.3918289 (Preprint) Details: Early terminated 89 patient RCT with 29 high dose and 92 very high dose ivermectin patients, showing dose dependent viral load reduction, although not reaching statistical significance due to early termination. Since most patients have lo...	hosp., ↑600.0%, p=0.30	High Dose Ivermectin for the Early Treatment of COVID-19 (COVIER Study): A Randomised, Double-Blind, Multicentre, Phase II, Dose-Finding, Proof of Concept Clinical Trial
18	Sep-03	Early	Okogbenin et al., Nigerian Postgraduate Medical Journal, doi:10.4103/npmj.npmj.532_21 (Peer Reviewed) Details: Retrospective 300 COVID-19 patients in Nigeria treated with ivermectin, zinc, vitamin C, and azithromycin, reporting no deaths. Authors conclude that early treatment is critical.		Clinical characteristics, treatment modalities and outcome of coronavirus disease 2019 patients treated at thriday dome isolation and treatment centre, federal capital territory Abuja, Nigeria
19	Sep-02	Meta	Marik et al., American Journal of Therapeutics, doi:10.1097/MIT.0000000000001443 (Peer Reviewed) (meta-analysis) Details: Updated meta-analysis showing no significant change if Elgazzar et al. is excluded.	meta-analysis	Ivermectin, A Reanalysis of the Data
20	Sep-02	Meta	Neil et al., American Journal of Therapeutics, doi:10.1097/MIT.0000000000001450 (Peer Reviewed) (meta-analysis) Details: Updated Bayesian analysis of a subset of ivermectin trials showing that there is strong evidence to support a causal link between ivermectin and COVID-19 severity and mortality, and that the result is robust in sensitivity analysis, inclu...	meta-analysis	Bayesian Hypothesis Testing and Hierarchical Modeling of Ivermectin Effectiveness
21	Aug-19	In Silico	González-Paz et al., Biophysical Chemistry, doi:10.1016/j.bpc.2021.106677 (Peer Reviewed) Details: In Silico analysis of the components of ivermectin (avermectin-B1a and avermectin-B1b), suggesting different and complementary inhibitory activity of each component, with an affinity of avermectin-B1b for viral structures, and of avermect...		Comparative study of the interaction of ivermectin with proteins of interest associated with SARS-CoV-2: A computational and biophysical approach
22	Aug-17	In Silico	González-Paz et al., Journal of Molecular Liquids, doi:10.1016/j.molliq.2021.117284 (Peer Reviewed) Details: In Silico elastic network model analysis of ivermectin components (avermectin-B1a and avermectin-B1b) providing a biophysical and computational perspective of proposed multi-target activity of ivermectin for COVID-19.		Structural Deformability Induced in Proteins of Potential Interest Associated with COVID-19 by Binding of Homologues Present in Ivermectin: Comparative Study Based in Elastic Networks Models
23	Aug-16	Review	Kory, P., Substack (Review) (Preprint) Details: Summary of the evidence base for ivermectin and COVID-19 including in vitro and in silico studies, animal studies, pharmacologic studies, clinical observation and experience, observational controlled trials, randomized controlled trials...	review	Summary of the Evidence for Ivermectin in COVID-19
24	Aug-12	Late	Elavarasi et al., medRxiv, doi:10.1101/2021.08.10.21261855 (Preprint) Details: Retrospective 2017 hospitalized patients in India, showing lower mortality with ivermectin treatment in unadjusted results. No group details are provided and this result is subject to confounding by indication.	death, ↓19.6%, p=0.12	Clinical features, demography and predictors of outcomes of SARS-CoV-2 infection in a tertiary care hospital in India - a cohort study
25	Aug-12	N/A	Pedroso et al., The Brazilian Journal of Infectious Diseases, doi:10.1016/j.bjid.2021.101603 (Peer Reviewed) Details: Retrospective 45 healthcare workers in Brazil, showing lower creation of antibodies with multiple doses of ivermectin, which may be expected due to the antiviral activity as demonstrated in multiple studies. Authors appear unaware of these...		Self-prescribed Ivermectin use is associated with a lower rate of seroconversion in health care workers diagnosed with COVID, in a dose-dependent response
26	Aug-10	News	La Pampa, Argentina (News) Details: News report on the use of ivermectin in La Pampa, Argentina, showing lower mortality with treatment.	death, ↓27.4%	La Pampa expondrá a la comunidad científica los resultados del Programa de Intervención Monitoreado de Ivermectina
27	Aug-06	Review	Kow et al., American Journal of Therapeutics, doi:10.1097/MIT.0000000000001441 (Review) (Peer Reviewed) Details: Review of sample size calculations in ivermectin RCTs, showing that existing RCTs are very underpowered.	review	Pitfalls in Reporting Sample Size Calculation Across Randomized Controlled Trials Involving Ivermectin for the treatment of COVID-19
28	Aug-06	Early	Together Trial (News) Details: Preliminary report from the Together Trial showing mortality RR 0.82 (0.44-1.52) and combined extended ER observation or hospitalization RR 0.91 (0.69-1.19). The same trial's results for a previous treatment were initially reported as RR...	death, ↓18.0%, p=0.54	Early Treatment of COVID-19 with Repurposed Therapies: The TOGETHER Adaptive Platform Trial
29	Aug-05	In Silico	Rana et al., Research Square, doi:10.21203/rs.3.rs-755887/v1 (Preprint) Details: In silico study showing strong binding affinity of ivermectin and doxycycline for SARS-CoV-2 main protease 3CLpro, and increased binding affinity for the combination of both.		A Computational Study of Ivermectin and Doxycycline Combination Drug Against SARS-CoV-2 Infection
30	Aug-03	Review	Santín et al., New Microbes and New Infections, doi:10.1016/j.nmni.2021.100924 (Review) (Peer Reviewed) Details: Review concluding that the evidence supports worldwide use of ivermectin for COVID-19, complementary to immunization. Authors note that it is likely non-epitope specific, possibly retaining efficacy with new viral strains. They note that...	review	Ivermectin: a multifaceted drug of Nobel prize-honored distinction with indicated efficacy against a new global scourge, COVID-19

31	Jul-31	Early, Late	Sathi et al., <i>Journal of Cardiovascular Disease Research</i> , doi:10.31838/jcdr.2021.12.05.11 (Peer Reviewed) Details: Prospective study of 85 COVID-19 patients including 8 ICU patients treated with ivermectin, HCQ, and AZ, showing all patients improving except for one patient that died 3 days after admission. Authors recommend early treatment. There was ...		Clinical Effect of the Combination Therapy of Hydroxychloroquine, Azithromycin and Ivermectin in Patients with COVID-19
32	Jul-28	Meta	Poppo et al., <i>Cochrane Database of Systematic Reviews</i> , doi:10.1002/14651858.CD015017.pub2 (Preprint) (meta analysis) Details: This meta analysis is designed to exclude almost all studies. Authors select a small subset of studies, with a majority of results based on only 1 or 2 studies, showing positive (non-statistically significant) results for 8 of 9 outcomes ...	meta-analysis	ivermectin for preventing and treating COVID-19
33	Jul-25	Early	Ontai et al., <i>medRxiv</i> , doi:10.1101/2021.07.21.21260273 (Preprint) Details: Report on the nationwide implementation of multi-drug COVID-19 inpatient and outpatient treatment protocols in Honduras, showing a case fatality rate decrease from 9.33% to 2.97%. No decrease was seen in Mexico, a similar Latin American ...		Early multidrug treatment of SARS-CoV-2 (COVID-19) and decreased case fatality rates in Honduras
34	Jul-24	News	World Ivermectin Day (News) Details: Joint event by 22 worldwide organizations.	news	World Ivermectin Day
35	Jul-23	Safety	Mansour et al., <i>International Immunopharmacology</i> , doi:10.1016/j.intimp.2021.108004 (Peer Reviewed) Details: Safety analysis of an inhaled lyophilized ivermectin formulation, showing 127-fold increase in drug solubility, and identifying safe dosage levels in rats.	safety analysis	Safety of inhaled ivermectin as a repurposed direct drug for treatment of COVID-19: A preclinical tolerance study
36	Jul-16	News	FLCCC Alliance and British Ivermectin Recommendation Development Group (News) Details: News release noting that ivermectin remains effective after excluding Elgazzar et al. Given the large magnitude effects and 61 studies, excluding one study with ~3% of patients does not significantly change the evidence base.	news	Joint Statement of the FLCCC Alliance and British Ivermectin Recommendation Development Group on Retraction of Early Research on Ivermectin
37	Jul-12	Meta	Neil et al., <i>ResearchGate</i> , doi:10.13140/RG.2.2.31800.88323 (Preprint) (meta analysis) Details: Bayesian analysis of a subset of ivermectin trial data concluding that there is overwhelming evidence to support a causal link between ivermectin, COVID-19 severity, and mortality.	meta-analysis	Bayesian Meta Analysis of Ivermectin Effectiveness in Treating Covid-19 Disease
38	Jul-08	In Silico	Muthusamy et al., <i>Journal of Virology & Antiviral Research</i> (Peer Reviewed) Details: In Silico study identifying 32 anti-parasitic compounds effectively inhibiting the RBD of the SARS-CoV-2 spike protein, with ivermectin being one of the top compounds.		Virtual Screening Reveals Potential Anti-Parasitic Drugs Inhibiting the Receptor Binding Domain of SARS-CoV-2 Spike protein
39	Jul-08	News	Together Trial (News) Details: Together Trial removes mortality and adverse event outcomes, and sublingual administration mid-trial.	news	Together Trial removes mortality and adverse event outcomes, and sublingual administration mid-trial
40	Jul-07	Late	hazan et al., <i>medRxiv</i> , doi:10.1101/2021.07.06.21259924 (Preprint) Details: Small study of 24 consecutive patients in serious condition (9 days post-symptoms, mean SpO2 87.4) using combined treatment with ivermectin, doxycycline, zinc, vitamin D, and vitamin C, showing no mortality or hospitalization with treatment.	death, ↓85.9%, p=0.04	Effectiveness of Ivermectin-Based Multidrug Therapy in Severe Hypoxic Ambulatory COVID-19 Patients
41	Jul-03	News	Open Letter, Statement of Concern and Request for Retraction, re: Roman et al. (News) Details: Open letter signed by 40 physicians detailing errors and flaws in the Roman et al. meta analysis, and requesting retraction.	news	Open Letter, Statement of Concern and Request for Retraction
42	Jul-02	Review	Adegboro et al., <i>African Journal of Clinical and Experimental Microbiology</i> , doi:10.4314/ajcem.v22i3.2 (Review) (Peer Reviewed) Details: Review of the antiviral effects of ivermectin.	review	A review of the anti-viral effects of ivermectin
43	Jul-02	Early	Vallejos et al., <i>BMC Infectious Diseases</i> , doi:10.1186/s12879-021-06348-5 (Peer Reviewed) Details: RCT with 501 relatively low-risk outpatients in Argentina showing hospitalization OR 0.65 [0.32-1.31]. With only 7% hospitalization, this trial is underpowered. The trial primarily includes low-risk patients that recover quickly without ...	death, ↑33.5%, p=0.70	Ivermectin to prevent hospitalizations in patients with COVID-19 (IVERCOR-COVID19) a randomized, double-blind, placebo-controlled trial
44	Jun-30	Review	Turkic M., <i>ResearchGate</i> , doi:10.13140/RG.2.2.16973.36326 (Preprint) Details: An extension of the ivermectin timeline covering April - June 2021, including WHO's role and funding, Gavi, COVAX, Trusted News Initiative, International Fact-Checking Network, the role of private philanthropy, Frontiers, comparison to th...	review	A Continuation of a Timeline of Ivermectin-Related Events in the COVID-19 Pandemic [June 30, 2021]
45	Jun-28	N/A	Roman et al., <i>Clinical Infectious Diseases</i> , doi:10.1093/cid/ciab591 (preprint 5/25/21) (Peer Reviewed) (meta analysis) Details: This is a severely flawed meta analysis. An open letter signed by 40 physicians detailing errors and flaws, and requesting retraction, can be found at 1.trialstitemews.com See also bird.scripps.org . Authors cherry-pick to include on...	meta-analysis	ivermectin for the treatment of COVID-19: A systematic review and meta-analysis of randomized controlled trials
46	Jun-25	Review	Jaisasi et al., <i>The International Journal of Clinical Practice</i> , doi:10.1111/ijcp.14574 (Review) (Peer Reviewed) Details: Survey of medication use for severe COVID-19 in India, showing 33% adoption of ivermectin as of January 2021.	review	Variation in therapeutic strategies for the management of severe COVID-19 in India: A nationwide cross-sectional survey
47	Jun-22	News	Misiones Ministry of Public Health (News) Details: News report on ivermectin use in Misiones, Argentina, showing significantly lower hospitalization and mortality, and a dose-dependent effect with improved results for those taking 0.6mg/kg.	news	Results from ivermectin use from the Misiones Ministry of Public Health
48	Jun-18	Review	Lind et al., <i>Journal of General Internal Medicine</i> , doi:10.1007/s11606-021-06948-6 (Review) (Peer Reviewed) Details: CDC analysis of ivermectin prescriptions in the US suggesting that, while national health authority recognition is delayed in that country, many physicians are aware of the efficacy demonstrated in clinical trials.	review	Increase in Outpatient Ivermectin Dispensing in the US During the COVID-19 Pandemic: A Cross-Sectional Analysis
49	Jun-18	Early	Krolowicki et al., <i>Clinical Medicine</i> , doi:10.1016/j.clinmed.2021.100959 (Peer Reviewed) Details: Proof of concept RCT with 30 ivermectin patients and 15 control patients, showing a concentration dependent antiviral activity, but no significant difference in clinical outcomes. There was no significant difference in viral load reduction.	ventilation, ↑151.9%, p=1.00	Antiviral effect of high-dose ivermectin in adults with COVID-19: A proof-of-concept randomized trial
50	Jun-17	Meta	Bryant et al., <i>American Journal of Therapeutics</i> , doi:10.1097/MJT.0000000000001402 (preprint 3/11/21) (Peer Reviewed) (meta analysis) Details: Systematic review, meta analysis, and trial sequential analysis of 24 RCTs finding mortality RR 0.38 [0.19-0.73].	death, ↓62.0%, p=0.005	Ivermectin for Prevention and Treatment of COVID-19 Infection: A Systematic Review, Meta-analysis, and Trial Sequential Analysis to Inform Clinical Guidelines
51	Jun-15	Review	Faidi et al., <i>The Journal of Antibiotics</i> , doi:10.1038/s41429-021-00430-5 (Review) (Peer Reviewed) Details: Extensive review of 20 mechanisms of action of ivermectin for SARS-CoV-2. This paper was censored by the editor for reasons unrelated to the review of mechanisms of action. The editor required the authors to change the paper to include ...	review	The mechanisms of action of ivermectin against SARS-CoV-2: An evidence-based clinical review article
52	Jun-15	Early	Aref et al., <i>International Journal of Nanomedicine</i> , doi:10.2147/IJN.S313093 (Peer Reviewed) Details: RCT 114 patients in Egypt, 57 treated with ivermectin mucoadhesive nanosuspension intranasal spray, showing faster recovery and viral clearance with treatment. NCT04716569.	recov. time, ↓63.2%, p=0.0001	Clinical, Biochemical and Molecular Evaluations of Ivermectin Mucoadhesive Nanosuspension Nasal Spray in Reducing Upper Respiratory Symptoms of Mild COVID-19
53	Jun-06	N/A	Hariyanto et al., <i>Reviews In Medical Virology</i> , doi:10.1002/rmv.2265 (Peer Reviewed) (meta analysis) Details: Systematic review and meta analysis of 19 RCTs showing mortality RR 0.33 [0.15-0.62].	death, ↓69.0%, p=0.001	Ivermectin and outcomes from Covid-19 pneumonia: A systematic review and meta-analysis of randomized clinical trial studies
54	Jun-03	Review	Wang et al., <i>medRxiv</i> , doi:10.1101/2021.06.01.21258147 (Review) (Preprint) Details: Analysis of the manufacturing cost of several COVID-19 medications, showing a cost of \$0.55 per course of ivermectin, including excipients, formulation, tax, and profit.	review	Minimum manufacturing costs, national prices and estimated global availability of new repurposed therapies for COVID-19
55	Jun-02	Late	Abd-Elisalam et al., <i>Journal of Medical Virology</i> , doi:10.1002/jmv.27122 (Peer Reviewed) Details: RCT 164 hospitalized patients in Egypt showing lower mortality and shorter hospitalization, but without statistical significance. There were no serious adverse effects. Authors suggest the low dosage may have resulted in lower efficacy th...	death, ↓25.0%, p=0.70	Clinical Study Evaluating the Efficacy of Ivermectin in COVID-19 Treatment: A Randomized Controlled Study
56	May-31	PrEPPEP	Mondal et al., <i>Journal of the Indian Medical Association</i> , 119:5 (Peer Reviewed) Details: Retrospective 1,470 healthcare workers in India, showing significantly lower risk of symptomatic COVID-19 with ivermectin prophylaxis.	symp. case, ↓87.9%, p=0.006	Prevalence of COVID-19 Infection and Identification of Risk Factors among Asymptomatic Healthcare Workers: A Serosurvey Involving Multiple Hospitals in West Bengal
57	May-18	In Vitro	Mountain Valley MD (Preprint) (In Vitro) Details: In Vitro and mouse study with human ACE2 cells, using solubilized ivermectin with Ivectrol™, showing antiviral effect with B.1.1.7, B.1.351, and P.1 variants of SARS-CoV-2. The ability to inject ivermectin potentially reduces the onset...	in vitro	Mountain Valley MD Receives Successful Results From BSL-4 COVID-19 Clearance Trial on Three Variants Tested With Ivectrol™
58	May-12	News	FLCCC Public Statement (News) Details: Analysis of the ivermectin recommendations from WHO and others, and a call to action for all citizens, scientists, and media to counter false information. Whistleblowers can submit anonymous reports and images at the bottom of this page.	news	FLCCC Alliance Statement on the Irregular Actions of Public Health Agencies and the Widespread Disinformation Campaign Against Ivermectin
59	May-10	Early	Zaisal et al., <i>The Professional Medical Journal</i> , doi:10.29309/TPMJ/2021.28.05.5867 (Peer Reviewed) Details: RCT 100 outpatients in Pakistan, 50 treated with ivermectin, showing faster recovery with ivermectin. All patients received AZ, zinc, vitamin C, vitamin D, and paracetamol. Details of randomization were not provided. No mortality or hospo...	no recov., ↓68.4%, p=0.005	Potential use of azithromycin alone and in combination with ivermectin in fighting against the symptoms of COVID-19
60	May-05	In Vitro	Zatloukal et al. (News) (In Vitro) Details: News report on In Vitro results from the research institute of Prof. Zatloukal, showing that ivermectin was able to reduce virus replication by a factor of 1,000 even at low concentrations.	news	News report on In Vitro results from the research institute of Prof. Zatloukal

61	May-05	In Silico	Qureshi et al., Journal of Biomolecular Structure and Dynamics, doi:10.1080/07391102.2021.1906750 [Peer Reviewed] Details: In Silico study showing inhibition of importin-α1 by ivermectin, which disrupts SARS-CoV-2 replication.		Mechanistic insights into the inhibitory activity of FDA approved ivermectin against SARS-CoV-2: old drug with new implications
62	May-04	Meta	Karale et al., medRxiv, doi:10.1101/2021.04.30.21256415 [Preprint] (meta analysis) Details: Systematic review and meta analysis with 30 studies included in quantitative analysis, showing mortality OR 0.39 [0.22-0.70]. Subgroup analysis of trials with severity data showed mortality OR 0.10 [0.03-0.33] for mild/moderate cases.	meta-analysis	A Meta-analysis of Mortality, Need for ICU admission, Use of Mechanical Ventilation and Adverse Effects with ivermectin Use in COVID-19 Patients
63	May-03	Early	Merino et al., SocArXiv Papers, doi:10.31235/osf.io/r93jd [Preprint] Details: Analysis of Mexico City's use of an ivermectin-based medical kit, showing significantly lower hospitalization with use. Authors use logistic regression models with matched observations, including adjustments for age, sex, COVID severity, ...	hosp., ↓ 74.4%, p<0.001	ivermectin and the odds of hospitalization due to COVID-19: evidence from a quasi-experimental analysis based on a public intervention in Mexico City
64	Apr-30	Review	Kory et al., American Journal of Therapeutics, doi:10.1097/MJT.0000000000001377 [Review] (Peer Reviewed) Details: Review of ivermectin trials and epidemiological data, concluding that ivermectin is effective for prophylaxis and treatment, and should be globally and systematically deployed in the prevention and treatment of COVID-19.	review	Review of the Emerging Evidence Demonstrating the Efficacy of ivermectin in the Prophylaxis and Treatment of COVID-19
65	Apr-29	Late	Ahsan et al., Cureus, doi:10.7759/cureus.14761 [Peer Reviewed] Details: Retrospective 165 hospitalized patients in Pakistan showing unadjusted lower mortality with combined ivermectin and doxycycline treatment. Details of the ivermectin group compared to other patients are not provided, however ivermectin was...	death, ↓ 50.0%, p=0.03	Clinical Variants, Characteristics, and Outcomes Among COVID-19 Patients: A Case Series Analysis at a Tertiary Care Hospital in Karachi, Pakistan
66	Apr-19	Review	DiNicolaantonio et al., Open Heart, doi:10.1136/openhrt-2021-001655 [Review] (Peer Reviewed) Details: Review suggesting that the effectiveness of ivermectin in the cytokine storm phase of COVID-19 may be, at least in part, an anti-inflammatory effect mediated by increased activation of glycine receptors on leukocytes and possibly vascular...	review	Anti-inflammatory activity of ivermectin in late-stage COVID-19 may reflect activation of systemic glycine receptors
67	Apr-17	Early	Loue et al., J. Infectious Diseases and Epidemiology, doi:10.23937/2474-3658/1510202 [Peer Reviewed] Details: Small quasi-randomized (patient choice) study with 25 PCR+ patients in a nursing home offered ivermectin, of which 10 chose to be treated. The mean age was 83.5 in the treatment group and 81.8 in the control group. There was lower mortali...	death, ↓ 70.0%, p=0.34	Ivermectin and COVID-19 in Care Home: Case Report
68	Apr-16	PREPEP	Morgenstern et al., Cureus, doi:10.7759/cureus.17455 [preprint 4/16/2021] (Peer Reviewed) Details: Propensity matched retrospective prophylaxis study of healthcare workers in the Dominican Republic showing significantly lower cases with treatment, and no hospitalization with treatment (versus 2 in the PSM matched control group). The ca...	hosp., ↓ 80.0%, p=0.50	Ivermectin as a SARS-CoV-2 Pre-Exposure Prophylaxis Method in Healthcare Workers: A Propensity Score-Matched Retrospective Cohort Study
69	Apr-15	In Silico	Schöning et al., Research Square, doi:10.21203/rs.3.rs-379291/v1 [Preprint] Details: In Silico study of ivermectin treatment predicting greater efficacy for variants with higher R0.		Highly-transmissible Variants of SARS-CoV-2 May Be More Susceptible to Drug Therapy Than Wild Type Strains
70	Apr-14	PREPEP	Seet et al., International Journal of Infectious Diseases, doi:10.1016/j.ijid.2021.04.035 [Peer Reviewed] Details: Prophylaxis RCT in Singapore with 3,037 low risk patients, showing lower serious cases, lower symptomatic cases, and lower confirmed cases of COVID-19 with all treatments (ivermectin, HCQ, PVP-I, and Zinc + vitamin C) compared to vitamin ...	symp. case, ↓ 49.8%, p=0.01	Positive impact of oral hydroxychloroquine and povidone-iodine throat spray for COVID-19 prophylaxis: an open-label randomized trial
71	Apr-10	In Silico	Bello et al., Journal of Biomolecular Structure and Dynamics, doi:10.1080/07391102.2021.1911857 [Peer Reviewed] Details: In Silico analysis finding that the in vitro activity of ivermectin may be explained by acting as an inhibitor of importin-α, dimeric 3CLpro, and nsp12.		Elucidation of the inhibitory activity of ivermectin with host nuclear importin α and several SARS-CoV-2 targets
72	Apr-03	Review	Turkio, M., Research Gate [Review] (Preprint) Details: An extensive timeline of ivermectin-related events from April 2020 to March 2021 including studies, news, health authority decisions, biased news coverage, and censorship. The author concludes that in a broader historical perspective, th...	review	A timeline of ivermectin-related events in the COVID-19 pandemic
73	Apr-01	Early	Mourya et al., Int. J. Health and Clinical Research [Peer Reviewed] Details: Retrospective 100 patients in India with 50 treated with ivermectin, and SOC for all patients including HCQ+Z, showing much higher viral clearance with ivermectin. Baseline clinical status was worse in the control group. Time of testing ...	viral+, ↓ 89.4%, p<0.0001	Comparative Analytical Study of Two Different Drug Regimens in Treatment of Covid 19 Positive Patients in Index Medical College Hospital and Research Center, Indore, India
74	Mar-30	Review	Wehbe et al., Front Immunol, doi:10.3389/fimmu.2021.663586 [Review] (Peer Reviewed) Details: Review of how ivermectin was identified for use in COVID-19, mechanisms of action, and selected clinical trials.	review	Repurposing Ivermectin for COVID-19: Molecular Aspects and Therapeutic Possibilities
75	Mar-30	Early	Chahja et al., Research Square, doi:10.21203/rs.3.rs-495945/v1 [original preprint 3/30] [Preprint] Details: Cluster RCT outpatients in Argentina showing significantly faster recovery with ivermectin. There were no deaths. Cluster RCT where outpatients in Tucumán were assigned to the ivermectin group and outpatients from San Miguel de Tucumán an...	no disch., ↓ 86.9%, p=0.004	Cluster Randomised Trials - Ivermectin Repurposing For COVID-19 Treatment Of Outpatients With Mild Disease In Primary Health Care Centers
76	Mar-29	Meta	Kow et al., Pharmacological Reports, doi:10.1007/s43440-021-00245-z [Peer Reviewed] (meta analysis) Details: Small meta analysis of 6 RCTs showing mortality OR 0.21 [0.11-0.42]. Authors do not include two more recent RCTs with mortality results, 10 other studies with mortality results, and a total of 42 other studies including other outcomes. Au...	meta-analysis	The association between the use of ivermectin and mortality in patients with COVID-19: a meta-analysis
77	Mar-26	PREPEP	Tanaka et al., medRxiv, doi:10.1101/2021.03.26.21254377 [Preprint] Details: Retrospective study of the 31 onchocerciasis-endemic countries using the community-directed treatment with ivermectin (CDT) and the 22 non-endemic countries in Africa, showing significantly lower mortality per capita in the countries us...	death, ↓ 88.2%, p=0.002	Why COVID-19 is not so spread in Africa: How does ivermectin affect it?
78	Mar-25	In Silico	Jidfia et al., Network Modeling Analysis in Health Informatics and Bioinformatics, doi:10.1007/s13721-021-00299-2 [Peer Reviewed] Details: In Silico analysis finding that ivermectin had the highest binding energy against the 3CLpro of SARS-CoV-2 and RdRps of both SARS-Cov and SARS-CoV-2.		In silico studies of selected multi-drug targeting against 3CLpro and nsp12 RNA-dependent RNA-polymerase proteins of SARS-CoV-2 and SARS-CoV
79	Mar-25	In Silico	Choudhury et al., Future Medicine, doi:10.2217/fm.2020-0342 [Peer Reviewed] Details: In Silico analysis finding that ivermectin has high binding affinity for the SARS-CoV-2 viral spike protein, main protease, replicase, and human TMPRSS2 receptors.		Exploring the binding efficacy of ivermectin against the key proteins of SARS-CoV-2 pathogenesis: an in silico approach
80	Mar-25	Late	Huvmek Press Release [Preprint] Details: Phase 2 results from a multicenter RCT of hospitalized patients in Bulgaria showing faster viral clearance, greater clinical improvement, and improved biomarkers with treatment. Ivermectin was taken on an empty stomach, potentially reduci...	no improv., ↓ 31.6%, p=0.28	Kovid-19 - Huvmek® Phase 2 clinical trial
81	Mar-24	Review	Yasuiwa et al., The Japanese Journal of Antibiotics, 74-1, Mar 2021 [Review] (Peer Reviewed) Details: Review of ivermectin for COVID-19. Authors note that Kitasato University's project was expanded in response to the results of Caly et al. which had left questions regarding in vivo therapeutic levels, and the results of those studies were...	review	Global trends in clinical studies of ivermectin in COVID-19
82	Mar-21	Early	Emmerich et al., Int. J. Environ. Res. Public Health, doi:10.3390/ijerph18073371 [Preprint] Details: Comparison between the two largest neighboring states in Brazil, Amazonas and Pará, showing more than 5 times lower mortality in Pará during the second wave when the Pará government supported early treatment and Amazonas did not, compar...		Comparisons between the Neighboring States of Amazonas and Pará in Brazil in the Second Wave of COVID-19 Outbreak and a Possible Role of Early Ambulatory Treatment
83	Mar-18	Late	Del Franco et al., Journal of Biomedical Research and Clinical Investigation, doi:10.31546/2633-8653.1008 [Peer Reviewed] Details: Retrospective 856 patients previously admitted to hospital for COVID-19 in Argentina, finding that ivermectin improved recovery from "long covid" symptoms.		Ivermectin in Long-Covid Patients: A Retrospective Study
84	Mar-17	In Vitro	Kumar et al., bioRxiv, doi:10.1101/2021.05.17.444467 [Preprint] (In Vitro) Details: In Vitro study showing moxidectin and ivermectin exhibited antiviral activity in Vero E6 cells. Authors indicate that no statistically significant effect was seen in Calu-3/PBEC cells, however Figure 3 shows a dose dependent reduction wit...	in vitro	Moxidectin and ivermectin inhibit SARS-CoV-2 replication in Vero E6 cells but not in human primary airway epithelium cells
85	Mar-12	Early	Roy et al., medRxiv, doi:10.1101/2021.03.08.21252883 [Preprint] Details: Retrospective database analysis of 36 mild COVID-19 patients, all treated with vitamin C, vitamin D, and zinc, comparing ivermectin + doxycycline (n=14), AZ (n=13), HCQ (n=14), and SOC (n=13), finding that all groups recover quickly, and...	recov. time, ↓ 5.6%, p=0.87	Outcome of Different Therapeutic Interventions in Mild COVID-19 Patients in a Single OPD Clinic of West Bengal: A Retrospective study
86	Mar-11	Meta	Nardelli et al., Signa Vitae, doi:10.22514/sv.2021.043 [Peer Reviewed] (meta analysis) Details: Meta analysis of RCT mortality results showing RR 0.19, p < 0.00001.	death, ↓ 79.5%, p<0.0001	Crying wolf in time of Corona: the strange case of ivermectin and hydroxychloroquine. Is the fear of failure withholding potential life-saving treatment from clinical use?
87	Mar-11	Meta	Schein et al., OSF Preprints [Preprint] (meta analysis) Details: Analysis of several issues with López-Medina et al. including the atypical adverse effects in the control arm and population use of ivermectin.	meta-analysis	Ivermectin sales in Valle del Cauca, Colombia, patterns of AEs, and other background re López-Medina et al. 2021
88	Mar-11	Meta	Schein et al., OSF Preprints [Preprint] (meta analysis) Details: Report on protocol violations in López-Medina et al.	meta-analysis	Protocol violations in López-Medina et al.: 38 switched ivermectin (IVM) and placebo doses, failure of blinding, widespread IVM sales OTC in Cali, and nearly identical AEs for the IVM and control groups
89	Mar-10	In Silico	Kern et al., Frontiers in Pharmacology, doi:10.3389/fphar.2021.625678 [Peer Reviewed] Details: Modeling study analyzing timing and dosing regimens of hydroxychloroquine, lopinavir/ritonavir, ivermectin, artemisinin, and nitazoxanide. The greatest benefits were seen when treatments were given immediately at the time of diagnosis. Au...		Modeling of SARS-CoV-2 Treatment Effects for Informed Drug Repurposing
90	Mar-10	In Vitro	Yesilbag et al., Virus Research, doi:10.1016/j.virusres.2021.198384 [Peer Reviewed] (In Vitro) Details: In Vitro study showing that ivermectin can inhibit infection of bovine respiratory disease viral agents BCoV, BPiV-3, BVDV, BRSV and BoHV-1 at the concentrations of 2.5 and 5 μM and in a dose-dependent manner.	in vitro	Ivermectin also inhibits the replication of bovine respiratory viruses (BRSV, BPiV-3, BoHV-1, BCoV and BVDV) in vitro

91	Mar-09	Late	Pott-Junior et al., <i>Toxicology Reports</i> , doi:10.1016/j.toxrep.2021.03.003 (Peer Reviewed)	Ventilation, ↓85.2%, p=0.25	Use of Ivermectin in the treatment of Covid-19: a pilot trial
			Details: Very small RCT with 4 control patients and 28 ivermectin patients split across 3 different dosage levels, showing lower (non-statistically significant) ICU admission with treatment. Authors suggest that ivermectin for SARS-CoV-2 is safe a...		
92	Mar-08	Early	Chamie-Quintero et al., <i>OSF Preprints</i> (Preprint)		Ivermectin for COVID-19 in Peru: 14-fold reduction in nationwide excess deaths, p=.002 for effect by state, then 13-fold increase after ivermectin use restricted
			Details: Analysis of Ivermectin use in Peru concluding that ivermectin most likely caused a 14 times reduction in excess deaths in Peru, prior to a 13 times increase after reversal of ivermectin use. Authors conclude that the results strongly sug...		
93	Mar-08	Late	Guzman et al., <i>medRxiv</i> , doi:10.1101/2021.03.04.21252084 (Preprint)	death, ↓19.0%, p=0.35	Factors associated with increased mortality in critically ill COVID-19 patients in a Mexican public hospital: the other faces of health system oversaturation
			Details: Retrospective 196 critically ill patients in Mexico. Patients overlap with the existing RCT by Beltran-Gonzalez (NC104391127). This preprint shows a larger treated population and greater (non-statistically significant) improvement with iv...		
94	Mar-08	Late	Galan et al., <i>Pathogens and Global Health</i> , doi:10.1080/20477724.2021.1890887 (Peer Reviewed)		Phase 2 randomized study on chloroquine, hydroxychloroquine or ivermectin in hospitalized patients with severe manifestations of SARS-CoV-2 infection
			Details: RCT 168 very late stage severe condition hospitalized patients comparing CQ, HQ, and ivermectin not showing significant differences. Authors were unable to add a control arm due to ethical issues. Authors claim that "the mortality...		
95	Mar-05	Safety	Desrozes, J., <i>ImmunoSafe Consultance</i> (Preprint)	fatality analysis	Medical Safety of Ivermectin
			Details: Safety analysis of >350 articles showing that ivermectin has an excellent safety profile. The author notes that "no severe adverse event has been reported in dozens of completed or ongoing studies involving thousands of participants...		
96	Mar-04	Early	López-Medina et al., <i>JAMA</i> , doi:10.1001/jama.2021.3071 (Peer Reviewed)	death, ↓66.8%, p=0.50	Effect of Ivermectin on Time to Resolution of Symptoms Among Adults With Mild COVID-19: A Randomized Clinical Trial
			Details: An open letter, signed by >100 physicians, concluding this study is fatally flawed can be found at jamaletter.com . This is a phone survey based RCT with low risk patients, 200 ivermectin and 198 control, showing lower mortality, low...		
97	Mar-01	In Silico	Saha et al., <i>Structural Chemistry</i> , doi:10.1007/s11224-021-01776-0 (Preprint) 3/11 (Preprint)		The Binding mechanism of ivermectin and Ivermectin with spike protein of SARS-CoV-2
			Details: In Silico analysis predicting that ivermectin has a large binding affinity for the SARS-CoV-2 spike protein. Three different computer modeling techniques show that ivermectin can inhibit SARS-CoV-2 entrance via HACE2.		
98	Feb-23	Late	Gonzalez et al., <i>medRxiv</i> , doi:10.1101/2021.02.18.21252037 (Preprint)	death, ↓14.4%, p=1.00	Efficacy and safety of Ivermectin and Hydroxychloroquine in patients with severe COVID-19. A randomized controlled trial
			Details: RCT late stage severe condition (93% SOFA ≥ 2, 96% APACHE ≥ 8) high comorbidity hospitalized patients in Mexico with 36 low dose ivermectin and 37 control patients not finding significant differences. NC104391127. Another study reports re...		
99	Feb-20	News	<i>BIRD Meeting 20th February 2021 (News)</i>	news	BIRD Meeting 20th February 2021
			Details: The British Ivermectin Recommendation Development (BIRD) panel, with dozens of multi-national scientists & doctors, issued sweeping recommendations for the immediate global use of ivermectin.		
100	Feb-16	Early	Elalfy et al., <i>J. Med. Virol.</i> , doi:10.1092/jmv.26880 (Peer Reviewed)	viral+, ↓86.9%, p<0.0001	Effect of a combination of Nitazoxanide, Ribavirin and Ivermectin plus zinc supplement (MANS.NRIZ study) on the clearance of mild COVID-19
			Details: Non-randomized controlled trial with 62 mild and early moderate patients with home treatment with ivermectin + nitazoxanide + ribavirin + zinc, showing significantly faster viral clearance.		
101	Feb-15	PREPPPEP	Behera et al., <i>Cureus</i> 13:8, doi:10.7759/cureus.16897 (preprint 2/15/21) (Peer Reviewed)	cases, ↓83.0%, p<0.001	Prophylactic Role of Ivermectin in Severe Acute Respiratory Syndrome Coronavirus 2 Infection Among Healthcare Workers
			Details: Prospective prophylaxis study with 3,532 healthcare workers, 2,439 receiving two-dose ivermectin prophylaxis, showing adjusted relative risk of confirmed COVID-19 with treatment 0.17 (0.12-0.23) p<0.001. 186 patients took only the first do...		
102	Feb-12	Early	Biber et al., <i>medRxiv</i> , doi:10.1101/2021.05.31.21258081 (results 2/12/21) (Preprint)	hosp, ↓70.2%, p=0.34	Favorable outcome on viral load and culture viability using Ivermectin in early treatment of non-hospitalized patients with mild COVID-19. A double-blind, randomized placebo-controlled trial
			Details: Double blind RCT for mild-moderate COVID-19 outpatients in Israel showing significantly faster reduction in viral load with treatment, and lower hospitalization with treatment. The one treatment hospitalization was a few hours after treat...		
103	Feb-10	Late	Lima-Morales (Peer Reviewed)	death, ↓77.7%, p=0.001	Effectiveness of a multidrug therapy consisting of ivermectin, azithromycin, montelukast and acetylsalicylic acid to prevent hospitalization and death among ambulatory COVID-19 cases in Tlaxcala, Mexico
			Details: Prospective trial of 768 COVID-19 outpatients in Mexico, 481 treated with ivermectin, AZ, montelukast, and aspirin, and 287 control patients with various treatments, showing significantly lower mortality and hospitalization, and significa...		
104	Feb-02	Early	Mohan et al., <i>Journal of Infection and Chemotherapy</i> , doi:10.1016/j.ijac.2021.08.021 (preprint 2/2/2021) (Peer Reviewed)	no recov, ↓62.5%, p=0.27	Single-dose oral ivermectin in mild and moderate COVID-19 (RIVET-COV): a single-centre randomized, placebo-controlled trial
			Details: RCT in India with low risk patients, comparing 24mg ivermectin, 12mg ivermectin, and placebo showing non-statistically significant improvements in recovery and PCR status (day 5 both arms, day 7 24mg only) with treatment, and showing gre...		
105	Jan-29	Meta	Cobos-Campos et al., <i>Clin. Res. Trials</i> , 2021, doi:10.15761/CRT.1000333 (Peer Reviewed) (meta analysis)	meta-analysis	Potential use of ivermectin for the treatment and prophylaxis of SARS-CoV-2 Infection: Efficacy of ivermectin for SARS-CoV-2
			Details: Review finding that there appears to be sufficient evidence to recommend ivermectin for the treatment of COVID-19, especially in the early stages of the disease.		
106	Jan-27	Meta	Castaneda-Sabogal et al., <i>medRxiv</i> , doi:10.1101/2021.01.26.21250420 (Preprint) (meta analysis)	meta-analysis	Outcomes of Ivermectin in the treatment of COVID-19: a systematic review and meta-analysis
			Details: Student-written meta analysis of a very small subset of studies exhibiting very high bias and significant flaws. Some of the problems: - As of the publication date, there are 35 studies, authors include only 4. (They list 5, but two are...		
107	Jan-25	In Silico	Eweas et al., <i>Frontiers in Microbiology</i> , doi:10.3389/fmicb.2020.592908 (Peer Reviewed)		Molecular Docking Reveals Ivermectin and Remdesivir as Potential Repurposed Drugs Against SARS-CoV-2
			Details: Molecular docking analysis showing that ivermectin efficiently binds to the viral S protein as well as the human cell surface receptors ACE2 and TMPRSS2; therefore, it might be involved in inhibiting the entry of the virus into the host...		
108	Jan-23	Animal	Errecaide et al., <i>Journal of Pharmaceutical Sciences</i> , doi:10.1016/j.xphs.2021.01.017 (Peer Reviewed)	animal study	Safety and Pharmacokinetic Assessments of a Novel Ivermectin Nasal Spray Formulation in a Pig Model
			Details: Animal study of a novel spray formulation of ivermectin, showing an advantage of the spray formulation in terms of fast attainment of high and persistent ivermectin concentrations in nasopharyngeal tissue.		
109	Jan-21	Early	Chamie-Quintero et al., Preprint, doi:10.2139/ssrn.3765018 (Preprint)		Sharp Reductions in COVID-19 Case Fatalities and Excess Deaths in Peru in Close Time Conjunction, State-By-State, with Ivermectin Treatments
			Details: Analysis of Ivermectin usage within states in Peru showing sharp reductions in COVID-19 deaths corresponding to the usage of ivermectin treatment.		
110	Jan-20	In Vitro	Moody et al., <i>Communications Biology</i> , doi:10.1038/s42003-020-01577-x (Peer Reviewed) (In Vitro)	in vitro	Identification of 3-chymotrypsin like protease (3CLPro) inhibitors as potential anti-SARS-CoV-2 agents
			Details: Computational molecular modeling screening and in vitro analysis for inhibitory effects on SARS-CoV-2 specific 3CLPro enzyme, showing that ivermectin blocked more than 85% of 3CLPro activity of SARS-CoV-2. Antiviral activity of ivermectin...		
111	Jan-19	Late	Shahbazzadeh et al., <i>Clinical Therapeutics</i> , doi:10.1016/j.clinthera.2021.04.007 (partial results available 3/19) (Peer Reviewed)	death, ↑197.1%, p=1.00	Effect of ivermectin on COVID-19: A multicenter double-blind randomized controlled clinical trial
			Details: RCT in Iran showing shorter time to recovery and shorter hospitalization time with ivermectin. There were no adverse effects. There was one death in the treatment group, the patient was in critical condition at baseline and died within 24...		
112	Jan-19	Meta	Hill et al., <i>Research Square</i> , doi:10.21203/rs.3.rs-148845/v1 (Preprint) (meta analysis)	death, ↓75.0%, p=0.0002	Meta-analysis of randomized trials of ivermectin to treat SARS-CoV-2 Infection
			Details: Meta analysis of 18 ivermectin RCTs with 2,282 patients showing faster viral clearance (dose and duration dependent), improved clinical recovery, and lower hospitalization and mortality. In six RCTs of moderate or severe infection, there...		
113	Jan-16	Early	Samaha et al., <i>Viruses</i> , doi:10.3390/v13060989 (results 3/16) (Peer Reviewed)		Effects of a Single Dose of Ivermectin on Viral and Clinical Outcomes in Asymptomatic SARS-CoV-2 Infected Subjects: A Pilot Clinical Trial in Lebanon
			Details: This study has been reported as pending retraction and has been removed.		
114	Jan-16	Early	Bukhari et al., <i>medRxiv</i> , doi:10.1101/2021.02.02.21250840 (results 1/16) (Preprint)	viral+, ↓82.4%, p=0.0001	Efficacy of ivermectin in COVID-19 Patients with Mild to Moderate Disease
			Details: RCT of relatively low risk hospitalized patients with 50 ivermectin and 50 control patients showing significantly faster viral clearance with treatment. 9 patients in the treatment arm were lost to followup compared with 5 in the control...		
115	Jan-13	Review	Kory et al., <i>Frontiers in Pharmacology</i> , doi:10.3389/fphar.2021.643369 (Peer Reviewed)	review	Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19
			Details: Meta analysis of ivermectin clinical studies and natural experiments where ivermectin has been widely used, showing efficacy of ivermectin in prophylaxis and treatment of COVID-19. This paper was censored by the journal after acceptance...		
116	Jan-12	Late	Okumus et al., <i>BMC Infectious Diseases</i> , doi:10.1186/s12879-021-06104-9 (preprint 3/21) (Peer Reviewed)	death, ↓33.3%, p=0.55	Evaluation of the Effectiveness and Safety of Adding Ivermectin to Treatment in Severe COVID-19 Patients
			Details: Small RCT for severe COVID-19 comparing the addition of ivermectin to SOC (low dose HCQ+AZ+favipiravir), with 30 treatment and 30 control patients in Turkey, showing lower mortality and faster clinical recovery. Authors also investigate...		
117	Jan-11	PREPPPEP	Chahia et al., <i>American Journal of Therapeutics</i> , doi:10.1097/MIT.0000000000001433 (Peer Reviewed)	m/s case, ↓95.2%, p=0.002	A randomized trial - intensive treatment based in ivermectin and iota-carrageenan as pre-exposure prophylaxis for COVID-19 in healthcare agents
			Details: Prophylaxis RCT for ivermectin and iota-carrageenan in Argentina, 117 healthcare workers treated with ivermectin and iota-carrageenan, and 117 controls, showing significantly lower cases with treatment. There were no moderate/severe cases...		
118	Jan-11	N/A	Bousquet-Melou et al., Preprint, doi:10.22541/au.161047848.80388481/v1 (Preprint)	dosing study	Large Impact of obesity on the disposition of ivermectin, moxidectin and eprinomectin in a canine model: relevance for COVID-19 patients
			Details: Animal dosing study with an obese dog model concluding that ivermectin maintenance doses should be based on lean body weight and not the total body weight in obese subjects, while the loading dose should be based on the total body weight...		
119	Jan-10	Review	Formiga et al., <i>J. Control Release</i> , doi:10.1016/j.jconrel.2020.10.009 (Review) (Peer Reviewed)	review	Ivermectin: an award-winning drug with expected antiviral activity against COVID-19
			Details: Review hypothesizing that micro- and nanotechnology-based formulations of ivermectin for the pulmonary delivery of ivermectin may be beneficial for use with COVID-19.		
120	Jan-09	Early	Ravikirti et al., <i>Journal of Pharmacy & Pharmaceutical Sciences</i> , doi:10.18433/jpos32105 (Peer Reviewed)	death, ↓88.7%, p=0.12	Ivermectin as a potential treatment for mild to moderate COVID-19: A double blind randomized placebo-controlled trial
			Details: RCT with 112 mild and moderate COVID-19 patients in India, showing lower mortality, ventilation, and ICU admission, although not statistically significant due to the small number of events. There was no mortality in the treatment arm (55 ...		

121	Jan-08	Early	Details: Comparison of COVID-19 death rates in Mexico showing that the only state using ivermectin has a dramatically lower rate.	Chamie, J. (News)	news	COVID-19 in Mexico
122	Jan-06	Early	Details: Small RCT comparing ivermectin 6mg & 12mg q84hr with lopinavir/ritonavir, showing a statistically significant and dose dependent effect of ivermectin on reducing the time to PCR. The study does not report mortality, hospitalization, pro...	Babalola et al., QJM: An International Journal of Medicine, doi:10.1093/qjmed/hcab035 (preprint 1/6) (Peer Reviewed)	viral+, ↓63.9%, p=0.11	Ivermectin shows clinical benefits in mild to moderate COVID19: A randomised controlled double-blind, dose-response study in Lagos
123	Jan-06	PrePEEP	Details: Report on ivermectin prophylaxis for healthcare workers in a hospital in Argentina, showing 0 cases in the 162 participants. Dosage was 0.2mg/kg weekly for eight weeks, followed by 4 months rest.	Hirsch et al., Microbiology & Infectious Diseases (Peer Reviewed)		Ivermectin as Prophylaxis Against COVID-19 Retrospective Cases Evaluation
124	Jan-03	Early, Late, P/EP, PEP	Details: Meta analysis confirming the effectiveness of ivermectin for COVID-19, showing ivermectin treatment mortality relative risk RR 0.17 [0.18-0.35] and prophylaxis cases RR 0.12 [0.08-0.18].	Lawrie et al., Preprint (Preprint) (meta analysis)	death, ↓83.0%, p<0.0001	Ivermectin reduces the risk of death from COVID-19 – a rapid review and meta-analysis in support of the recommendation of the Front Line COVID-19 Critical Care Alliance
125	Dec-31 2020	Late	Details: Case report on 3 confirmed cases of COVID-19 with significant clinical and radiological improvement after a single dose of ivermectin.	Wijaya et al., Germin Dunia Kedokteran, 47:2 (Peer Reviewed)		Ivermectin as a Potential Therapeutic Agent for COVID-19 – case studies
126	Dec-31 2020	Animal	Details: In vivo analysis of the safety of high dose ivermectin with a Corydoras fish animal model.	Madrid et al., Heliyon, doi:10.1016/j.heliyon.2020.e05820 (Peer Reviewed)		Safety of oral administration of high doses of ivermectin by means of biocompatible polyelectrolytes formulation
127	Dec-30 2020	Review	Details: Review urging early treatment of COVID-19 with sequential multidrug treatment that has been shown to be safe and effective. Proposed treatment includes zinc, vitamin D & C, quercetin, and depending on age, comorbidities, and symptoms may...	McCullough et al., Reviews in Cardiovascular Medicine, doi:10.31083/j.rcm.2020.04.264 (Review) (Peer Reviewed)	review	Multifaceted highly targeted sequential multidrug treatment of early ambulatory high-risk SARS-CoV-2 infection (COVID-19)
128	Dec-30 2020	Early	Details: Retrospective 922 outpatients, with 320 treated early due to age<50 or comorbidities, showing 2.2% hospitalization and 0.3% death, which authors note is considerably lower than reported in other studies in their region. At least two of...	Procter et al., Reviews in Cardiovascular Medicine, doi:10.31083/j.rcm.2020.04.260 (Peer Reviewed)		Clinical outcomes after early ambulatory multidrug therapy for high-risk SARS-CoV-2 (COVID-19) infection
129	Dec-27 2020	Meta	Details: WHO-funded meta analysis showing ivermectin treatment mortality relative risk RR 0.17 [0.08-0.35] for RCTs and RR 0.28 [0.13-0.62] for RCTs and observational studies, and confirming a dose-response effect.	Hill, A., Preprint (Preprint) (meta analysis)	meta-analysis	Meta-analysis of clinical trials of ivermectin to treat COVID-19 infection
130	Dec-24 2020	In Vitro	Details: In Vitro study showing enhanced antiviral activity of ivermectin and remdesivir in combination.	Jeffreys et al., bioRxiv, doi:10.1101/2020.12.23.424232 (Preprint) (In Vitro)	in vitro	Remdesivir-ivermectin combination displays synergistic interaction with improved in vitro antiviral activity against SARS-CoV-2
131	Dec-20 2020	PrePEEP	Details: Report on ivermectin prophylaxis in a hospital in Argentina showing lower cases for healthcare workers taking ivermectin. Preliminary results from 131. Note that this prophylaxis trial is a different study to the early treatment Vallejos...	IVERCOR PREP. Preliminary Results (Preprint)	cases, ↓73.4%, p<0.0001	Ivermectina en agentes de salud e IVERCOR COVID19
132	Dec-18 2020	Early, Late, P/EP, PEP	Details: Meta analysis of ivermectin clinical studies and natural experiments where ivermectin has been widely used, showing efficacy of ivermectin in prophylaxis and treatment of COVID-19.	Kory et al., FLCCC Alliance (Preprint) (meta analysis)	death, ↓69.0%, p<0.0001	Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19
133	Dec-15 2020	PrePEEP	Details: 91% reduction in COVID-19 cases with ivermectin prophylaxis. 118 healthcare workers in Bangladesh, 58 receiving ivermectin 12mg monthly, showing RR 0.094, p < 0.0001.	Alam et al., European Journal of Medical and Health Sciences, doi:10.24018/ejmed.2020.2.6.599 (Peer Reviewed)	cases, ↓90.6%, p<0.0001	Ivermectin as Pre-exposure Prophylaxis for COVID-19 among Healthcare Providers in a Selected Tertiary Hospital in Dhaka – An Observational Study
134	Dec-15 2020	Early	Details: Retrospective 95 outpatients in Pakistan with strong clinical suspicion of COVID-19 (testing was not widely available), with 40 patients treated with ivermectin, showing significantly shorter duration of febrile illness with treatment. Mo...	Ghauri et al., International Journal of Clinical Studies & Medical Case Reports, doi:10.46998/IJCMCR.2021.13.000320 (preprint 12/15/2020) (Peer Reviewed)	viral- time, ↓98.0%, p=0.0008	Ivermectin Use Associated with Reduced Duration of Covid-19 Febrile Illness in a Community Setting
135	Dec-11 2020	Early	Details: Small case study of ivermectin + doxycycline with 8 cancer patients, with all patients becoming PCR- by day 6 when tested again.	Hussain et al., International Journal of Molecular and Immuno Oncology, doi:10.25259/IJMO.30.2020 (Preprint)		Outcome of ivermectin and doxycycline in cancer patients with COVID-19: A positive experience in Bangladesh
136	Dec-07 2020	Early	Details: Tiny RCT for early treatment of mild COVID-19 in low risk patients, with 12 400mg/kg single dose ivermectin patients and 12 control patients, showing significantly faster viral load reduction and symptom improvement with ivermectin. Awei...	Chaccour et al., EClinicalMedicine, doi:10.1016/j.eclinm.2020.100720 (preprint 12/7) (Peer Reviewed)	symptoms, ↓96.0%, p<0.05	The effect of early treatment with ivermectin on viral load, symptoms and humoral response in patients with non-severe COVID-19: A pilot, double-blind, placebo-controlled, randomized clinical trial
137	Dec-04 2020	Meta	Details: Review of ivermectin mechanisms and 8 trials, showing positive mortality benefit, reduced time to clinical recovery, reduced incidence of disease progression, and decreased duration of hospital admission in patients across all stages of cu...	Kalfas et al., medRxiv, doi:10.1101/2020.11.30.20236570 (Preprint) (meta analysis)	meta-analysis	The therapeutic potential of ivermectin for COVID-19: a systematic review of mechanisms and evidence
138	Dec-04 2020	In Vitro	Details: In Vitro analysis of ivermectin with orally administrable nanoparticles showing efficacy for decreasing expression of the viral spike protein and ACE2. Inhibition of nuclear transport activities mediated through proteins such as importin...	Sumar et al., ACS Pharmacol. Transl. Sci., doi:10.1021/acscptol.0c01179 (Peer Reviewed) (In Vitro)	in vitro	Clinically Approved Antiviral Drug in an Orally Administrable Nanoparticle for COVID-19
139	Dec-02 2020	Early	Details: Small 72 patient RCT of ivermectin and ivermectin + doxycycline showing faster recovery with ivermectin. The ivermectin + doxycycline group uses only a single dose of ivermectin vs. 5 daily doses for the ivermectin group. Hospitalization...	Ahmed et al., International Journal of Infectious Diseases, doi:10.1016/j.ijid.2020.11.191 (Peer Reviewed)	symptoms, ↓85.0%, p=0.09	A five day course of ivermectin for the treatment of COVID-19 may reduce the duration of illness
140	Dec-02 2020	Early	Details: After starting to distribute ivermectin in drug kits in July, the Mexican state of Chiapas has seen a dramatic divergence from other states with much lower mortality [1, 2].	Chamie, J. (News)	news	The effect of using ivermectin to control COVID-19 in Chiapas
141	Dec-01 2020	Early	Details: Observational study in Argentina showing significantly lower mortality in the 60 days after adopting ivermectin compared to the 60 days before, relative risk RR 0.082, p=0.003.	Alonso et al. (Preprint)	death, ↓91.8%, p=0.009	COVID-19: Uso de ivermectina
142	Nov-28 2020	PrePEEP	Details: 69 residents of a French care home, median age 90, were treated with ivermectin for a scabies outbreak. 3,062 residents in 45 nearby comparable homes were used as controls. 7 of 69 treated patients had probable or certain COVID-19, with n...	Bernigaud et al., Annals of Dermatology and Venereology, doi:10.1016/j.annder.2020.09.231 (Peer Reviewed)	death, ↓99.4%, p=0.08	Ivermectin benefit: from scabies to COVID-19, an example of serendipity
143	Nov-28 2020	PrePEEP	Details: Analysis of COVID-19 cases vs. widespread prophylactic use of ivermectin for parasitic infections showing significantly lower incidence of COVID-19 cases.	Hellwig et al., International Journal of Antimicrobial Agents, doi:10.1016/j.ijantimicag.2020.106248 (Peer Reviewed)	cases, ↓78.0%, p<0.02	A COVID-19 Prophylaxis? Lower incidence associated with prophylactic administration of ivermectin
144	Nov-24 2020	Late	Details: 82% lower mortality with ivermectin. RCT with 180 hospitalized patients showing reduced mortality and hospital stay with ivermectin, with a wide margin of safety. All patients received SOC including low dose HCQ. Analysis suggests randomi...	Niaee et al., Asian Pacific Journal of Tropical Medicine, doi:10.4103/1995-7645.318304 (preprint 11/24/20) (Peer Reviewed)	death, ↓81.8%, p=0.001	Ivermectin as an adjunct treatment for hospitalized adult COVID-19 patients: A randomized multi-center clinical trial
145	Nov-22 2020	Animal	Details: Animal study showing that standard doses of ivermectin prevented clinical deterioration, reduced olfactory deficit, and limited the inflammation of the upper and lower respiratory tracts in SARS-CoV-2-infected hamsters.	de Melo et al., EMBO Mol. Med., doi:10.15252/emmm.202114122 (preprint 11/22/20) (Peer Reviewed)		Attenuation of clinical and immunological outcomes during SARS-CoV-2 infection by ivermectin
146	Nov-18 2020	Late	Details: Retrospective 976 hospitalized patients with 34 treated with ivermectin showing ivermectin mortality relative risk RR 0.13, p = 0.04 in unadjusted results.	Budhiraja et al., medRxiv, doi:10.1101/2020.11.16.20232223 (Preprint)	death, ↓99.1%, p=0.04	Clinical Profile of First 1000 COVID-19 Cases Admitted at Tertiary Care Hospitals and the Correlates of their Mortality: An Indian Experience
147	Nov-17 2020	PrePEEP	Details: Prophylaxis study using ivermectin and Iota-Carrageenan showing 0 of 788 cases from treated healthcare workers, compared to 227 of 407 control. The authors later reported that carrageenan is not necessary in this protocol [1].	Carvalho et al., Journal of Biomedical Research and Clinical Investigation, doi:10.31546/2633-8653.1007 (Peer Reviewed)	cases, ↓99.9%, p<0.0001	Study of the Efficacy and Safety of Topical Ivermectin + Iota-Carrageenan in the Prophylaxis against COVID-19 in Health Personnel
148	Nov-14 2020	Late	Details: 100 patient prospective trial of ivermectin + doxycycline showing reduced time to symptom resolution and shorter hospital stay with treatment.	Spoorthi et al., JAIM, 2020, 7:10, 177-182 (Peer Reviewed)	recov. time, ↓21.1%, p=0.03	Utility of Ivermectin and Doxycycline combination for the treatment of SARS-CoV-2
149	Nov-13 2020	Late	Details: This study was withdrawn.	Eigazza et al., Research Square, doi:10.21203/rs.3.rs-100956/v2 (Preprint)		Efficacy and Safety of Ivermectin for Treatment and Prophylaxis of COVID-19 Pandemic
150	Nov-11 2020	Late	Details: Tiny 26 patient retrospective study of very late treatment with ivermectin 200 µg/kg, median 12 days after symptoms, not showing significant differences. Authors suggest the dose is too low and recommend evaluation of higher doses. All pa...	Campurubi et al., PLoS ONE, 15:11, doi:10.1371/journal.pone.0242184 (Peer Reviewed)	ventilation, ↓40.0%, p=0.67	Lack of efficacy of standard doses of ivermectin in severe COVID-19 patients

151	Nov-10 2020	Review	Turkio, M., ResearchGate (Review) (Preprint) Details: Review suggesting that ivermectin should be used based on existing data suggesting significant benefits, and that waiting for additional data may result in significant harm.	review	FLCCC Alliance MATH+ ascorbic acid and L-MASK+ ivermectin protocols for COVID-19 — a brief review
152	Nov-04 2020	Early	Cadejani et al., New Microbes and New Infections, doi:10.1016/j.nmi.2021.100915 (preprint 11/4/2020) (Peer Reviewed) Details: Comparison of HCQ, nitazoxanide, and ivermectin showing similar effectiveness for overall clinical outcomes in COVID-19 when used before seven days of symptoms, and overwhelmingly superior compared to the untreated COVID-19 population, ev...	death, ↓78.3%, p=0.50	Early COVID-19 Therapy with azithromycin plus nitazoxanide, ivermectin or hydroxychloroquine in Outpatient Settings Significantly Improved COVID-19 outcomes compared to Known outcomes in untreated patients
153	Nov-03 2020	Early, Late	Morgenstern et al., J. Clinical Trials (preprint 11/3) (Peer Reviewed) Details: Retrospective 3,099 outpatients treated with ivermectin in an ER. Of 2,706 treated on an outpatient basis, 18 were subsequently hospitalized, 2 in the ICU, and there was one death (0.04%). The average treatment delay for patients treated...		The Use of Compassionate Ivermectin in the Management of Symptomatic Outpatients and Hospitalized Patients with Clinical Diagnosis of Covid-19 at the Centro Medico Bournigal and at the Centro Medico Punta Cana, GrupoRescue, Dominican Republic, from May 1 to August 10, 2020
154	Nov-03 2020	PrEPPEP	Behera et al., PLOS ONE, doi:10.1371/journal.pone.0247163 (Peer Reviewed) Details: Retrospective matched case-control prophylaxis study for HCQ, ivermectin, and vitamin C with 372 healthcare workers, showing lower COVID-19 incidence for all treatments, with statistical significance reached for ivermectin, HCQ OR 0.56...	cases, ↓53.8%, p=0.0007	Role of ivermectin in the prevention of SARS-CoV-2 infection among healthcare workers in India: A matched case-control study
155	Nov-02 2020	Animal	Arévalo et al., Scientific Reports, doi:10.1038/s41598-021-86679-0 (preprint 11/2/20) (Peer Reviewed) Details: Mouse study showing ivermectin reducing MHV viral load and disease. MHV is a type 2 Family RNA coronavirus similar to SARS-CoV2.	animal study	ivermectin reduces in vivo coronavirus infection in a mouse experimental model
156	Oct-31 2020	PrEPPEP	Chang et al., ResearchGate (Preprint) Details: Pre-exposure prophylaxis study with 129 people split into high/low exposure groups, with each group split into different dosing regimens, showing higher effectiveness with more frequent doses. High-exposure group: every 7 days dosing: 0.0...		COVID-19: Effectiveness of pre-exposure prophylaxis with ivermectin in exposed persons
157	Oct-31 2020	Early	Sicilia Fonseca et al., Travel Medicine and Infectious Disease, doi:10.1016/j.tmaid.2020.101906 (Peer Reviewed) Details: Retrospective 717 patients in Brazil showing OR 1.17 (0.72-1.90) for ivermectin. This paper focuses on HCQ, event counts for ivermectin are not provided. With significant correlation between the variables used, including overlap in the pr...	hosp., ↑13.9%, p=0.53	Risk of Hospitalization for Covid-19 Outpatients Treated with Various Drug Regimens in Brazil: Comparative Analysis
158	Oct-26 2020	Late	Hashim et al., Iraqi Journal of Medical Science, 19:1 (Peer Reviewed) Details: RCT 70 ivermectin+doxycycline patients and 70 control patients showing reduced time to recovery and reduced mortality with treatment. Earlier treatment was more successful. For ethical reasons, critical patients were all in the treatment...	death, ↓91.7%, p=0.03	Controlled randomized clinical trial on using Ivermectin with doxycycline for treating COVID-19 patients in Baghdad, Iraq
159	Oct-22 2020	PrEPPEP	Guerrea et al., Colombia Médica, doi:10.15100/cm.45114.4813 (Peer Reviewed) Details: Study of African Programme for Onchocerciasis Control (APOC) countries, which used ivermectin, with non-APOC countries in Africa, showing 28% lower mortality for APOC countries, relative risk RR = 0.72 (0.67-0.78). See also [1] and the au...		COVID-19: The Ivermectin African Enigma
160	Oct-19 2020	PrEPPEP	Carvalho et al., NCT04425850 (Preprint) Details: Prophylaxis study using ivermectin and carrageenan showing 0 of 131 cases from treated healthcare workers, compared to 11 of 98 control. The effect is likely to be primarily due to ivermectin - the author has later reported that carragee...	cases, ↓96.3%, p<0.0001	Usefulness of Topical Ivermectin and Carrageenan to Prevent Contagion of Covid 19 (IVERCAR)
161	Oct-13 2020	Animal	Chacour et al., Scientific Reports, doi:10.1038/s41598-020-74084-y (Peer Reviewed) Details: Study showing that nebulized ivermectin can reach pharmacodynamic concentrations in the lung tissue of rats. Authors note that additional experiments are required to assess the safety of this formulation in larger animals.	animal study	Nebulized ivermectin for COVID-19 and other respiratory diseases, a proof of concept, dose-ranging study in rats
162	Oct-13 2020	Late	Falter et al., Chest, doi:10.1016/j.chest.2020.10.089 (Peer Reviewed) Details: Retrospective 280 hospitalized patients showing lower mortality with ivermectin (13.3% vs 24.5%), propensity matched odds ratio OR 0.47 (0.22-0.99), p=0.045.	death, ↓46.0%, p=0.04	Use of Ivermectin is Associated with Lower Mortality in Hospitalized Patients with COVID-19 (ICON study)
163	Oct-09 2020	Early	Mahmud et al., Journal of International Medical Research, doi:10.5061/drvd.qia2bw6f6 (preprint 10/9/20) (Peer Reviewed) Details: RCT for ivermectin+doxycycline showing improvements in mortality, recovery, progression, and virological cure. 183 treatment and 183 control patients with no deaths in the treatment arm vs. 3 in the control arm (the 3 control deaths are n...	death, ↓85.7%, p=0.25	ivermectin in combination with doxycycline for treating COVID-19 symptoms: a randomized trial
164	Oct-08 2020	In Silico	Francés-Moneris et al., ChemRxiv, doi:10.26434/chemrxiv.12782758.v1 (Preprint) Details: In silico study showing that ivermectin is capable of interfering in different key steps of the SARS-CoV-2 replication cycle.		Has Ivermectin Virus-Directed Effects against SARS-CoV-2? Rationalizing the Action of a Potential Multitarget Antiviral Agent
165	Oct-08 2020	Late	Soto-Becerra et al., medRxiv, doi:10.1101/2020.10.06.20208066 (Preprint) Details: Retrospective database study of 5683 patients, 692 received HCQ/CQ/AZ, 200 received HCQ/CQ, 203 received ivermectin, 1600 received AZ, 358 received ivermectin+AZ, and 2630 received standard of care. This study includes anyone with ICD-10...	death, ↓17.1%, p=0.01	Real-World Effectiveness of hydroxychloroquine, azithromycin, and ivermectin among hospitalized COVID-19 patients: Results of a target trial emulation using observational data from a nationwide Healthcare System in Peru
166	Sep-30 2020	Late	Chachar et al., International Journal of Sciences, 9:31-35, doi:10.18483/ijsci.2378 (Peer Reviewed) Details: Small RCT with 25 ivermectin and 25 control patients, not finding a significant difference in recovery at day 2.	no recov., ↓10.0%, p=0.50	Effectiveness of Ivermectin in SARS-CoV-2/COVID-19 Patients
167	Sep-24 2020	Late	Chan et al., Archives de Bronchopneumologie, doi:10.1016/j.arbres.2020.08.007 (Letter) Details: Retrospective 115 ivermectin patients and 133 control patients showing significantly lower death and faster viral clearance. Some potential issues and the authors' response can be found in [1, 2].	death, ↓87.1%, p=0.02	Ivermectin treatment may improve the prognosis of patients with COVID-19
168	Sep-22 2020	In Vitro	Li et al., J. Cellular Physiology, doi:10.1002/jcp.30055 (Peer Reviewed) (In Vitro) Details: In Vitro study showing ivermectin is a safe wide-spectrum antiviral against SARS-CoV-2, human papillomavirus (HPV), Epstein-Barr virus (EBV), and HIV. Authors note that the combination of ivermectin and other drugs might result in more f...	in vitro	Quantitative proteomics reveals a broad-spectrum antiviral property of ivermectin, benefiting for COVID-19 treatment
169	Sep-15 2020	Early	Carvalho et al., Journal of Clinical Trials, 11:459 (preprint 9/15/20) (Peer Reviewed) Details: Prospective trial of ivermectin, dexamethasone, enoxaparin, and aspirin, showing no hospitalization for mild cases, and lower mortality for moderate/severe patients.	death, ↓85.4%, p=0.08	Safety and Efficacy of the Combined Use of Ivermectin, Dexamethasone, Enoxaparin and Aspirin against COVID-19 the I.D.E.A. Protocol
170	Sep-15 2020	Review	Jans et al., Cells 2020, 9:9, 2100, doi:10.3390/cells9092100 (Review) (Letter) Details: Review of ivermectin as a host-directed broad-spectrum antiviral agent for a range of viruses, including SARS-CoV-2. Cell culture experiments show robust antiviral action towards HIV-1, dengue virus (DENV), Zika virus, West Nile virus, V...	review	Ivermectin as a Broad-Spectrum Host-Directed Antiviral: The Real Deal?
171	Sep-09 2020	In Silico	Swargiary, A., Research Square, doi:10.21203/rs.3.rs-73308/v1 (Preprint) Details: In Silico study showing high binding affinity of ivermectin with SARS-CoV-2 RNA-dependent RNA polymerase, suggesting ivermectin as an inhibitor of RdRp.		Ivermectin as a promising RNA-dependent RNA polymerase inhibitor and a therapeutic drug against SARS-CoV2: Evidence from in silico studies
172	Sep-06 2020	Review	Dinkulatarlo et al., Open Heart, doi:10.1136/openh-2020-001350 (Review) (Peer Reviewed) Details: Review suggesting that ivermectin may be useful for late stage COVID-19. Authors note that ivermectin, in doses at or modestly above the standard clinical dose, may have important clinical potential for managing disorders associated with...	review	Ivermectin may be a clinically useful anti-inflammatory agent for late-stage COVID-19
173	Sep-03 2020	Late	Podder et al., IJMC, Med. Science, 14:2, July 2020 (Peer Reviewed) https://www.researchgate.net/publication/344240147_Outcome_of_ivermectin_treated_mild_to_moderate_COVID-19_cases_a_single-centre_open-label_randomised_controlled_study/link/5f5f02392851c078669e65/download	recov. time, ↓16.1%, p=0.34	Outcome of ivermectin treated mild to moderate COVID-19 cases: a single-centre, open-label, randomised controlled study
174	Aug-31 2020	Late	Kishoria et al., Paripex - Indian Journal of Research, doi:10.36106/paripex/4801859 (Peer Reviewed) Details: Small RCT of hospitalized patients in India with 19 ivermectin patients and 13 control patients, with all receiving SOC including HCQ, showing no significant differences. The patient population is biased because the study recruited patient...	no disch., ↑7.5%, p=1.00	Ivermectin as adjuvant to hydroxychloroquine in patients resistant to standard treatment for SARS-CoV-2: results of an open-label randomized clinical study
175	Aug-28 2020	PrEPPEP	Shouman et al., Journal of Clinical and Diagnostic Research, doi:10.7860/JCDR/2020/46795.0000 (Peer Reviewed) Details: PEP trial for asymptomatic close contacts of COVID-19 patients, 203 ivermectin patients and 101 control patients. 7.4% of contacts developed COVID-19 in the ivermectin group vs. 58.4% in the control group, adjusted odds ratio OR 0.087, p...	symp. case, ↓91.3%, p<0.001	Use of Ivermectin as a Potential Chemoprophylaxis for COVID-19 in Egypt: A Randomised Clinical Trial
176	Aug-15 2020	Early	Espitio-Hernandez et al., Biomedical Research, 31:5 (Peer Reviewed) Details: Small study with 28 patients treated with ivermectin + AZ + cholecalciferol and 7 control patients. All treated patients were PCR- at day 10 while all control patients remained PCR+. The mean duration of symptoms was 3 days in the treatm...	recov. time, ↓70.0%, p<0.0001	Effects of Ivermectin-azithromycin-cholecalciferol combined therapy on COVID-19 infected patients: A proof of concept study
177	Aug-14 2020	Late	Bhattacharya et al., Int. J. Scientific Research, doi:10.36106/ijr/7232245 (Peer Reviewed) Details: Retrospective 148 hospitalized patients showing triple therapy with ivermectin + atorvastatin + N-acetylcysteine resulted in a 1.35% case fatality rate which was well below the national average.	review	Observational Study on Clinical Features, Treatment and Outcome of COVID 19 in a tertiary care Centre in India-a retrospective case series
178	Jul-31 2020	Review	Vora et al., Indian Journal of Tuberculosis, doi:10.1016/j.ijtub.2020.07.031 (Review) (Peer Reviewed) Details: Panel review of ivermectin reportine that "ivermectin in the dose of 12mg BD alone or in combination with other therapy for 5-7 days may be considered as safe therapeutic option for mild/moderate or severe cases of Covid-19 infection...	review	White paper on ivermectin as a potential therapy for COVID-19
179	Jul-31 2020	Late	Chang et al., ResearchGate (Preprint) Details: Report on 33 patients with persistent or post-acute symptoms treated with ivermectin, showing a high rate of clinical improvement.		Post-acute or prolonged COVID-19: ivermectin treatment for patients with persistent symptoms or post-acute symptoms
180	Jul-31 2020	Theory	Chang et al., ResearchGate, doi:10.13140/RG.2.2.34561.48483/2 (Preprint) (Theory) Details: Proposed PEP protocol based on ivermectin.	theory	COVID-19: Post-exposure prophylaxis with ivermectin in contacts. At Homes, Places of Work, Nursing Homes, Prisons, and Others

181	Jul-31 2020	Late	Alam et al., <i>Journal of Bangladesh College of Physicians and Surgeons</i> , doi:10.3329/bcps.v38i0.47512 (Preprint) Details: Case study of 100 patients treated with ivermectin and doxycycline, with no ICU admission, deaths, or serious side effects reported.		A Case Series of 100 COVID-19 Positive Patients Treated with Combination of Ivermectin and Doxycycline
182	Jul-31 2020	Late	Rahman et al., <i>J. Bangladesh Coll. Phys. Surg.</i> 38, 5-9, doi:10.3329/bcps.v38i0 (Peer Reviewed) Details: Comparison of 200 patients treated with ivermectin + doxycycline and 200 treated with HCQ + Az. The HCQ + Az group had more severe cases at baseline. Viral clearance was faster with ivermectin + doxycycline, however ivermectin clearance r...		Comparison of Viral Clearance between Ivermectin with Doxycycline and Hydroxychloroquine with Azithromycin in COVID-19 Patients
183	Jul-14 2020	Early	Chowdhury et al., <i>Eurasian Journal of Medicine and Oncology</i> , doi:10.14744/ejmo.2021.16263 (Peer-Reviewed) Details: Small 116 patient RCT with low-risk patients comparing ivermectin+doxycycline and HCQ+Az, showing lower hospitalization, higher viral clearance, and faster symptom resolution and viral clearance with ivermectin+doxycycline. Mid-recovery r...	hosp., ↓80.6%, p=0.23	A Comparative Study on Ivermectin-Doxycycline and Hydroxychloroquine-Azithromycin Therapy on COVID-19 Patients
184	Jul-08 2020	Late	Gorial et al., <i>medRxiv</i> , doi:10.1101/2020.07.07.20145979 (Preprint) Details: Small trial of hospitalized patients with 16 of 87 patients being treated with ivermectin, showing a significantly lower mean hospital stay with ivermectin: 7.62 vs. 13.22 days, p=0.00005. 0 of 16 ivermectin patients died vs. 2 of 71 cont...	death, ↓71.0%, n=1.00	Effectiveness of Ivermectin as add-on Therapy in COVID-19 Management (Pilot Trial)
185	Jun-19 2020	In Silico	Leher et al., <i>In Vivo</i> , 34(5), 3023-3026, doi:10.21873/invivo.32134 Details: In silico analysis showing ivermectin docking which may interfere with the attachment of the spike to the human cell membrane.		Ivermectin Docks to the SARS-CoV-2 Spike Receptor-binding Domain Attached to ACE2
186	Jun-16 2020	Early	Ramos et al., <i>Preprint (Preprint)</i> Details: Prospective study of 63 outpatients in Peru treated with ivermectin, reporting significant improvement within 24 hours.		Intervención de la Ivermectina Pre-Hospitalaria para la Modificación de la Evolución del Covid19. Estudio realizado en Perú
187	Jun-12 2020	Review	Heidary et al., <i>The Journal of Antibiotics</i> , 73, 593-602, doi:10.1038/s41429-020-0336-z (Review) (Peer-Reviewed) Details: Review of the antimicrobial, antiviral, and anti-cancer properties of ivermectin. Antiviral effects have been reported for Zika, dengue, yellow fever, West Nile, Hendra, Newcastle, Venezuelan equine encephalitis, Chikungunya, Semliki For...	review	Ivermectin: a systematic review from antiviral effects to COVID-19 complementary regimen
188	May-20 2020	Dosing	Arshad et al., <i>Clinical Pharmacology & Therapeutics</i> , doi:10.1002/cpt.1909 (Peer Reviewed) (Dosing) Details: Pharmacokinetic analysis predicting that ivermectin will achieve lung concentration over 10 times higher than the reported EC50.	dosing study	Prioritization of Anti-SARS-Cov-2 Drug Repurposing Opportunities Based on Plasma and Target Site Concentrations Derived from their Established Human Pharmacokinetics
189	May-02 2020	Early	Chang, G., <i>Research Gate</i> , doi:10.13140/RG.2.2.34689.48482/7 (Preprint) Details: Peru observational case study of 7 patients treated with ivermectin, showing improvement and resolution of fever within 48 hours, and 100% recovery.		Inclusión de la ivermectina en la primera línea de acción terapéutica para COVID-19
190	Apr-21 2020	Review	Bray et al., <i>Antiviral Res.</i> , doi:10.1016/j.antiviral.2020.104805 (Review) (Preprint) Details: Responses to Caly et al., and the author's reply. The original authors note that "ivermectin's key direct target in mammalian cells is a not a viral component, but a host protein important in intracellular transport; the fact that it...	review	Ivermectin and COVID-19: A report in Antiviral Research, widespread interest, an FDA warning, two letters to the editor and the authors' responses
191	Apr-03 2020	In Vitro	Caly et al., <i>Antiviral Research</i> , doi:10.1016/j.antiviral.2020.104787 (Peer Reviewed) (In Vitro) Details: In Vitro study showing that ivermectin is an inhibitor of SARS-CoV-2, with a single addition to Vero-hSLAM cells 2h post infection with SARS-CoV-2 able to effect ~5000-fold reduction in viral RNA at 48h. Some people claim this study show...	In vitro	The FDA-approved drug ivermectin inhibits the replication of SARS-CoV-2 in vitro
192	2013	N/A	Guzzo et al., <i>J. Clinical Pharmacology</i> , doi:10.1177/009127002237994 (Peer Reviewed) Details: Safety study concluding that ivermectin was generally well tolerated, with no indication of associated CNS toxicity for doses up to 10 times the highest FDA-approved dose. Adverse effects were similar between ivermectin and placebo and dl...	safety analysis	Safety, Tolerability, and Pharmacokinetics of Escalating High Doses of Ivermectin in Healthy Adult Subjects
193	1990	Animal	Chiu et al., <i>J. Agric. Food Chem.</i> , doi:10.1021/r00101a015 (Peer Reviewed) Details: Animal study showing that lung tissue concentration of ivermectin may be ~20 times higher than plasma concentration.	animal study	Absorption, tissue distribution, and excretion of tritium-labeled ivermectin in cattle, sheep, and rat