Exhibit 113

COVID-19 Early Treatment: real-time analysis of 1,874 studies
https://c19early.com/

COVID-19 early treatment: real-time analysis of 1,874 studies

Analysis of 42 COVID early treatments, approvals in 72 countries, database of 841 treatments.

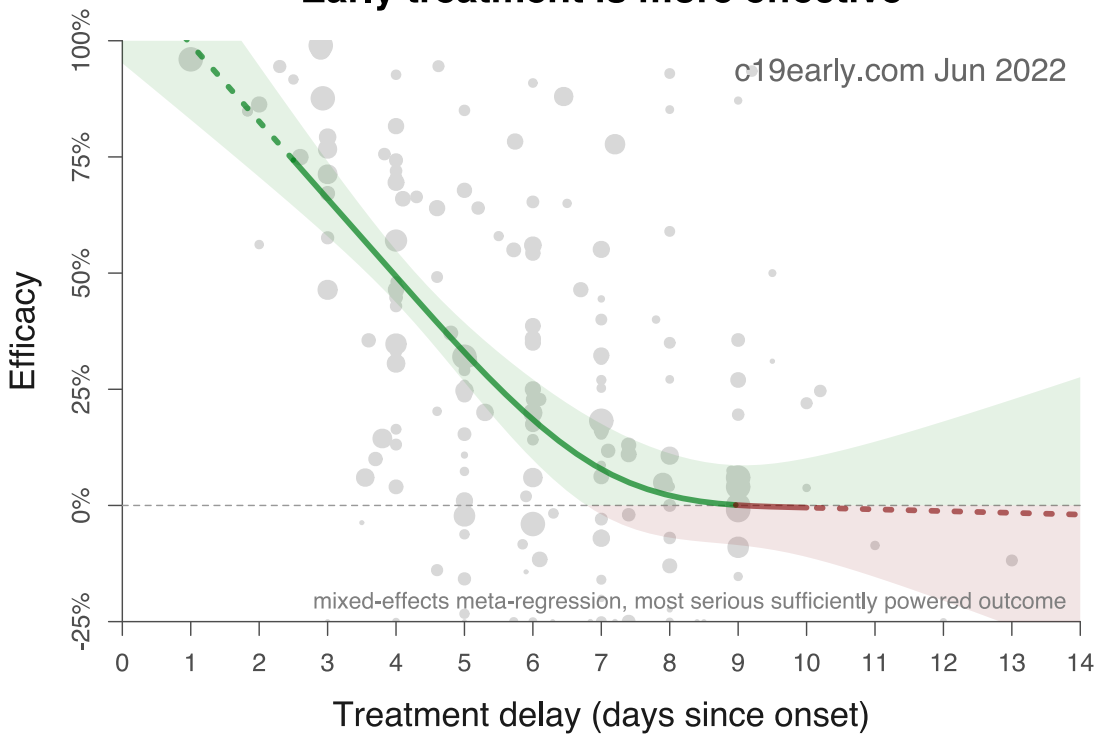
Search

Treatments do not replace vaccines and other measures. All practical, effective, and safe means should be used. No treatment, vaccine, or intervention is 100% available and effective for all variants. Denying efficacy increases mortality, morbidity, and collateral damage.

RECENTLY ADDED (MORE..)

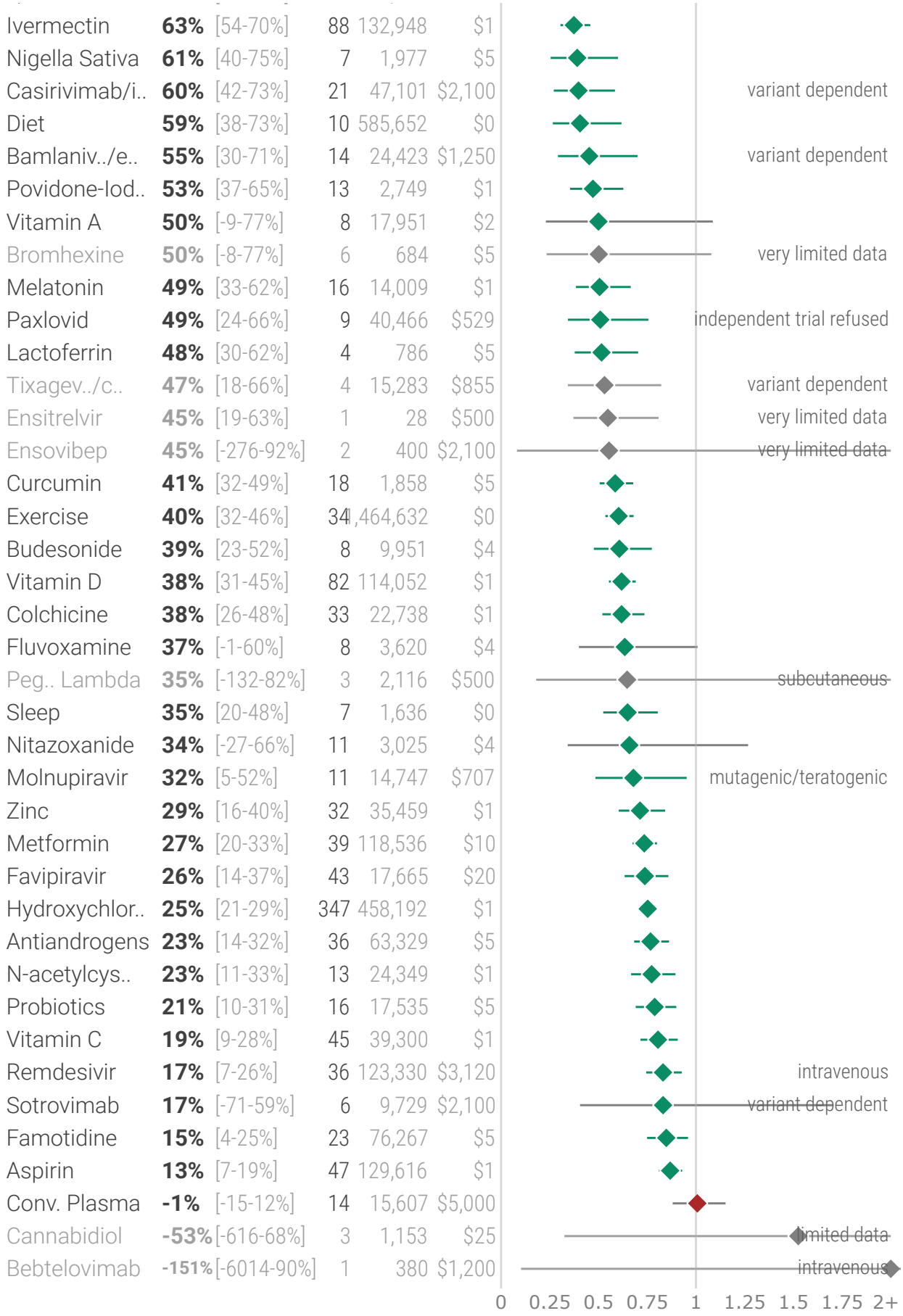
Alahmari	977 patients zinc late treatment: 30% shorter hospitalization [p<0.0001]
Botton	31,072,642 patients aspirin prophylaxis: 4% higher combined mortality/intubation …
Li	Exercise meta analysis: 40% lower hospitalization [p<0.0001]
Mirahmadizadeh	261 patient ivermectin early treatment RCT: 67% lower ventilation [p=0.37], 46% lo…
Karonova	110 patient vitamin D late treatment RCT: 86% lower ICU admission [p=0.11] and 7…

Early treatment is more effective



All studies (pooled effects, all stages) c19early.com Jun 28, 2022

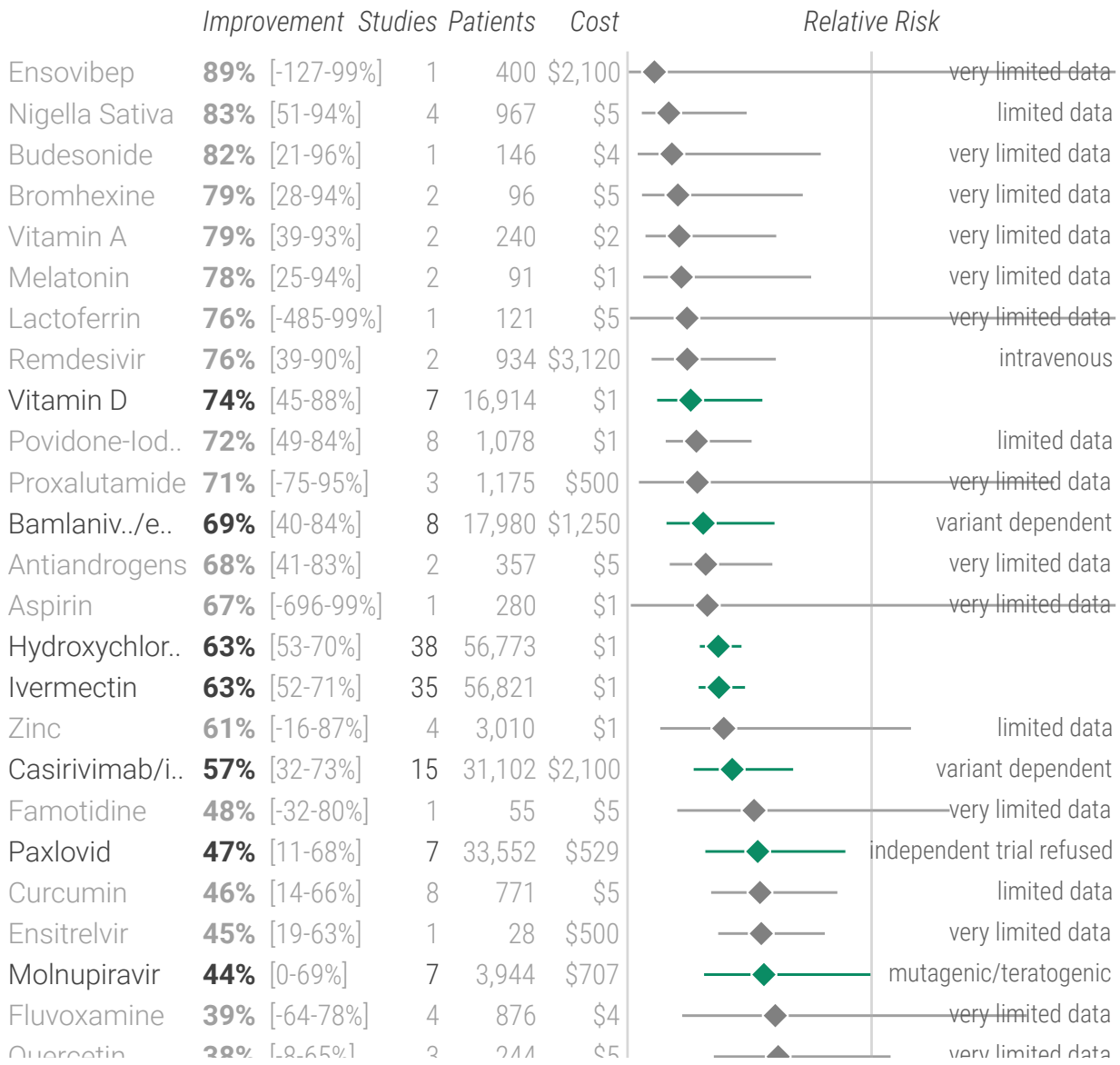
	Improvement	*Studies*	*Patients*	*Cost*	*Relative Risk*	
Iota-carragee..	**80%** [11-96%]	1	394	$1		very limited data
Proxalutamide	**78%** [70-83%]	4	1,953	$500		limited data
Quercetin	**63%** [27-81%]	9	1,279	$5		

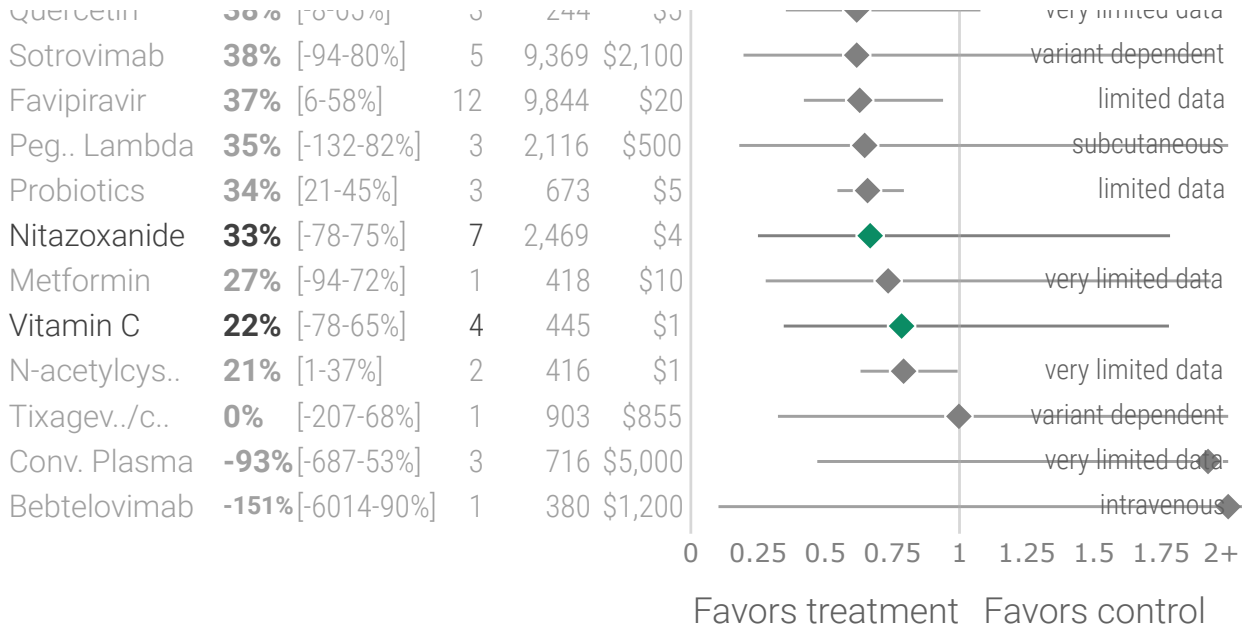

Ivermectin 63% [54-70%] 88 132,948 $1
Nigella Sativa 61% [40-75%] 7 1,977 $5
Casirivimab/i.. 60% [42-73%] 21 47,101 $2,100 variant dependent
Diet 59% [38-73%] 10 585,652 $0
Bamlaniv../e.. 55% [30-71%] 14 24,423 $1,250 variant dependent
Povidone-Iod.. 53% [37-65%] 13 2,749 $1
Vitamin A 50% [-9-77%] 8 17,951 $2
Bromhexine 50% [-8-77%] 6 684 $5 very limited data
Melatonin 49% [33-62%] 16 14,009 $1
Paxlovid 49% [24-66%] 9 40,466 $529 independent trial refused
Lactoferrin 48% [30-62%] 4 786 $5
Tixagev../c.. 47% [18-66%] 4 15,283 $855 variant dependent
Ensitrelvir 45% [19-63%] 1 28 $500 very limited data
Ensovibep 45% [-276-92%] 2 400 $2,100 very limited data
Curcumin 41% [32-49%] 18 1,858 $5
Exercise 40% [32-46%] 34 1,464,632 $0
Budesonide 39% [23-52%] 8 9,951 $4
Vitamin D 38% [31-45%] 82 114,052 $1
Colchicine 38% [26-48%] 33 22,738 $1
Fluvoxamine 37% [-1-60%] 8 3,620 $4
Peg.. Lambda 35% [-132-82%] 3 2,116 $500 subcutaneous
Sleep 35% [20-48%] 7 1,636 $0
Nitazoxanide 34% [-27-66%] 11 3,025 $4
Molnupiravir 32% [5-52%] 11 14,747 $707 mutagenic/teratogenic
Zinc 29% [16-40%] 32 35,459 $1
Metformin 27% [20-33%] 39 118,536 $10
Favipiravir 26% [14-37%] 43 17,665 $20
Hydroxychlor.. 25% [21-29%] 347 458,192 $1
Antiandrogens 23% [14-32%] 36 63,329 $5
N-acetylcys.. 23% [11-33%] 13 24,349 $1
Probiotics 21% [10-31%] 16 17,535 $5
Vitamin C 19% [9-28%] 45 39,300 $1
Remdesivir 17% [7-26%] 36 123,330 $3,120 intravenous
Sotrovimab 17% [-71-59%] 6 9,729 $2,100 variant dependent
Famotidine 15% [4-25%] 23 76,267 $5
Aspirin 13% [7-19%] 47 129,616 $1
Conv. Plasma -1% [-15-12%] 14 15,607 $5,000
Cannabidiol -53% [-616-68%] 3 1,153 $25 limited data
Bebtelovimab -151% [-6014-90%] 1 380 $1,200 intravenous
0 0.25 0.5 0.75 1 1.25 1.5 1.75 2+

Favors treatment Favors control

Random effects meta-analysis of all studies (pooled effects, all stages). Treatments with ≤3 studies with distinct authors or with <50 control events are shown in grey. Pooled results across all stages and outcomes depend on the distribution of stages and outcomes tested - for example late stage treatment may be less effective and if the majority of studies are late stage this may obscure the efficacy of early treatment. Please see the specific stage and outcome analyses. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.

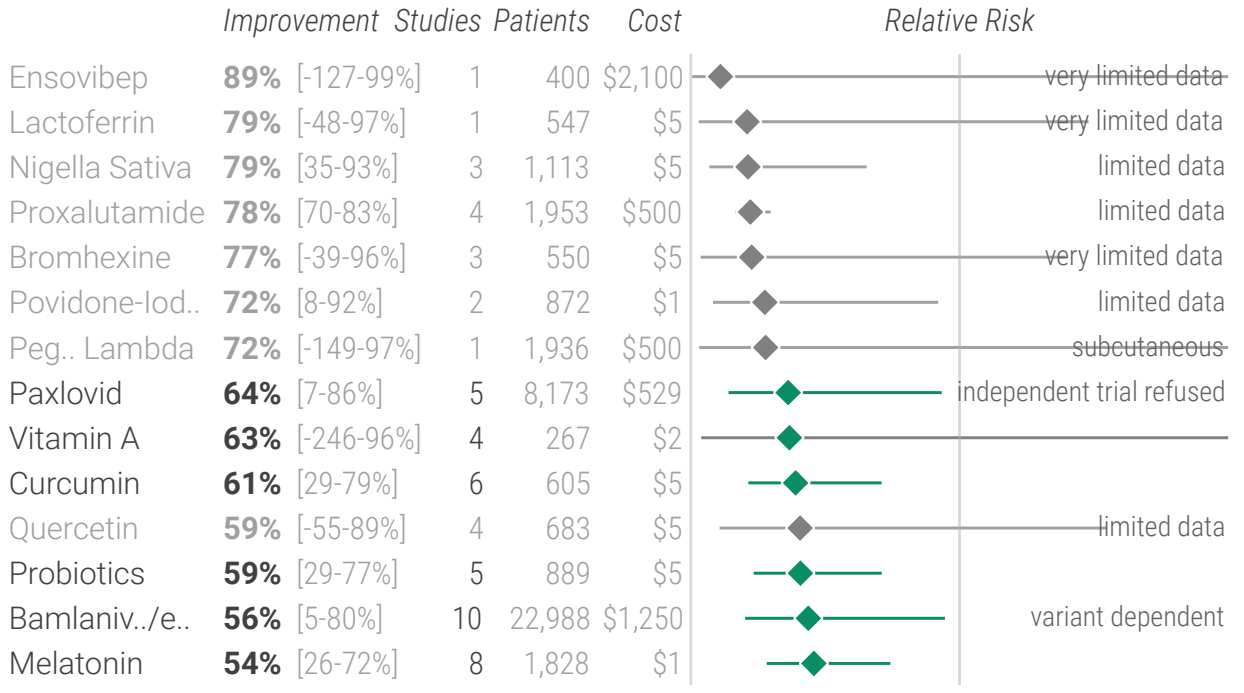
Early treatment studies (pooled effects) c19early.com Jun 28, 2022

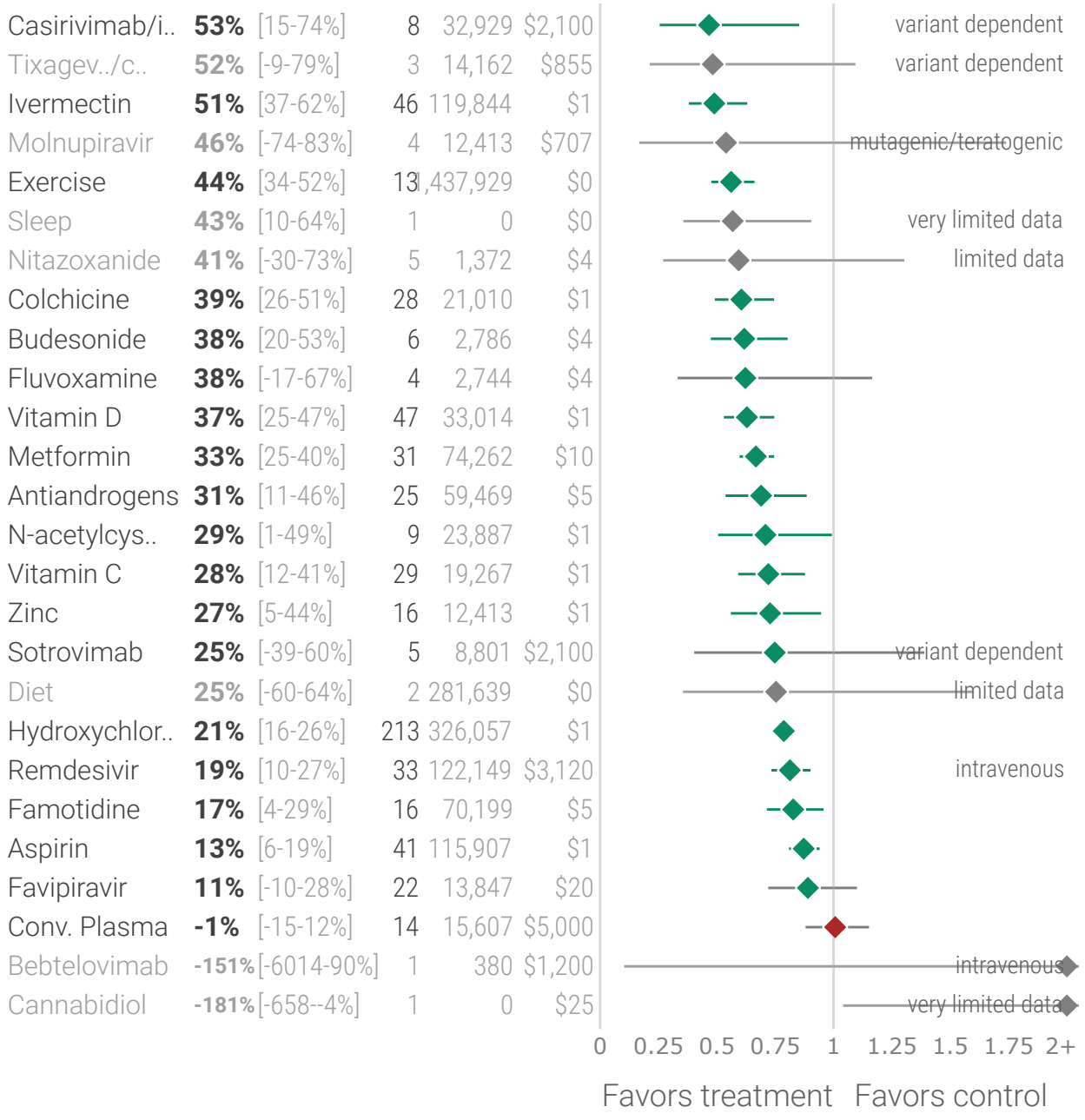




Random effects meta-analysis of early treatment studies (pooled effects). Treatments with ≤3 studies with distinct authors or with <50 control events are shown in grey. Pooled results across all outcomes are affected by the distribution of outcomes tested, please see detail pages for specific outcome analysis. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.

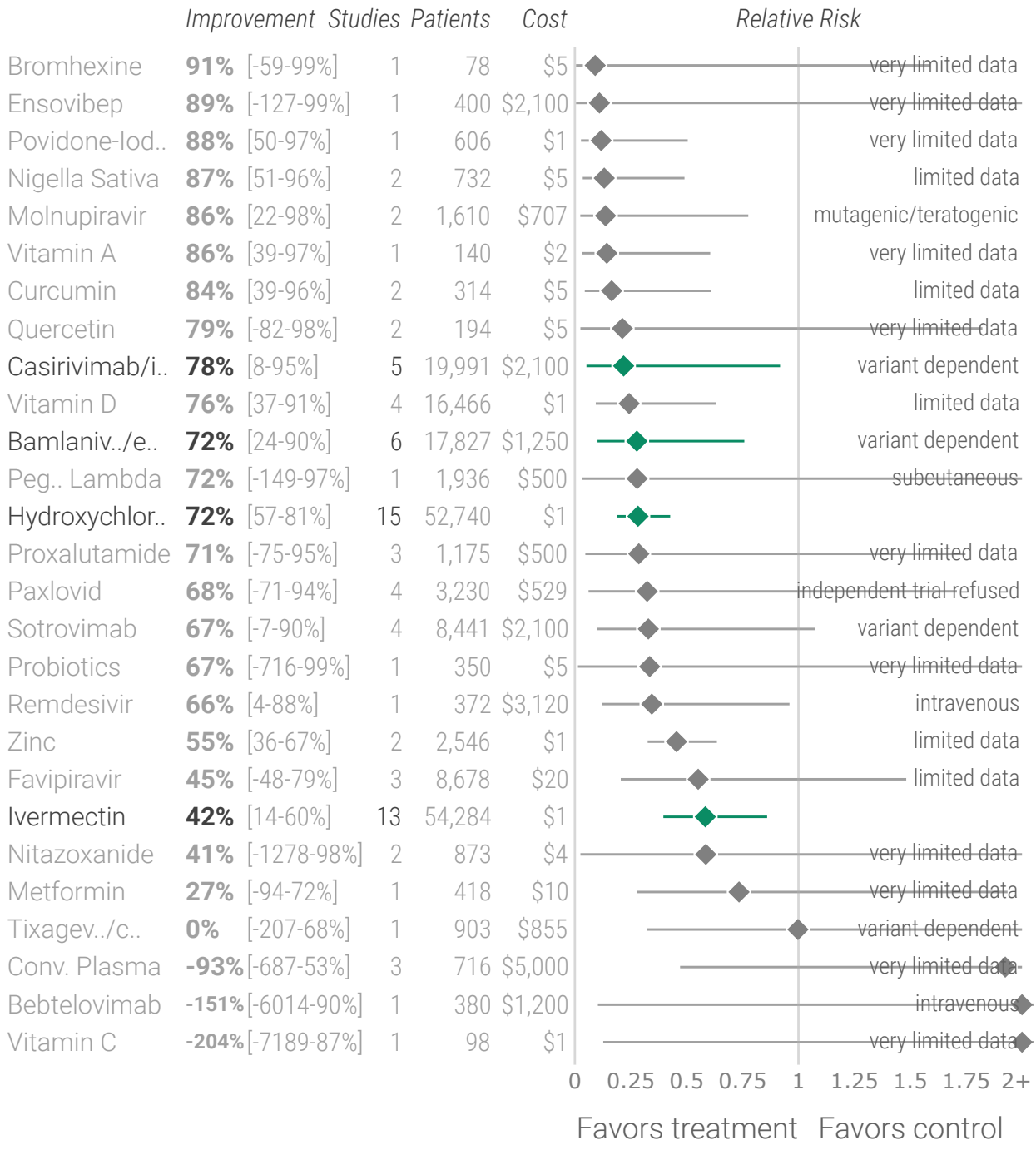
All mortality results (all stages) c19early.com Jun 28, 2022



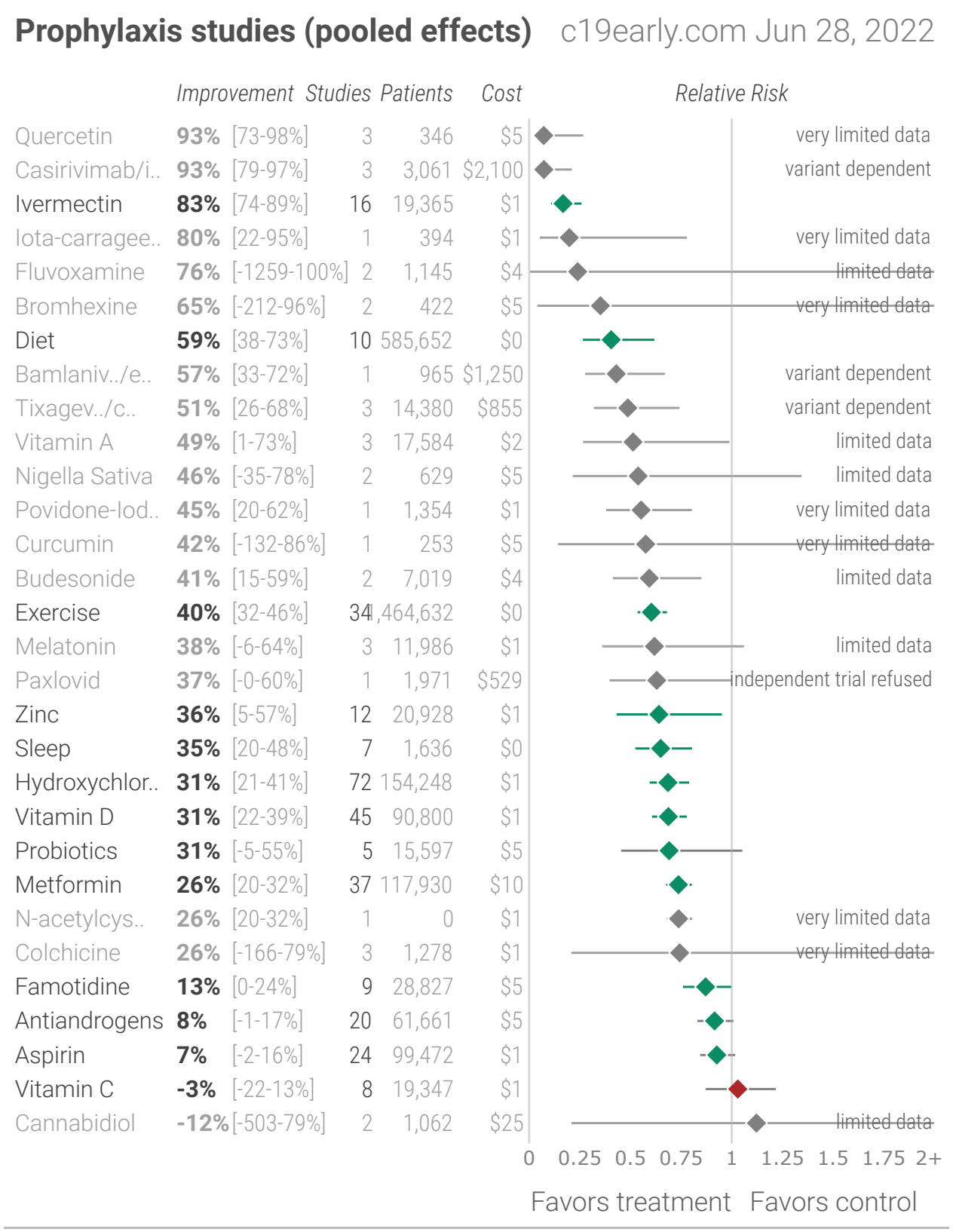


Random effects meta-analysis of all mortality results (all stages). Treatments with ≤3 studies with distinct authors or with <25 control events are shown in grey. Pooled results across all stages depend on the distribution of stages tested - for example late stage treatment may be less effective and if the majority of studies are late stage this may obscure the efficacy of early treatment. Please see the specific stage analyses. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.

Early treatment mortality results c19early.com Jun 28, 2022



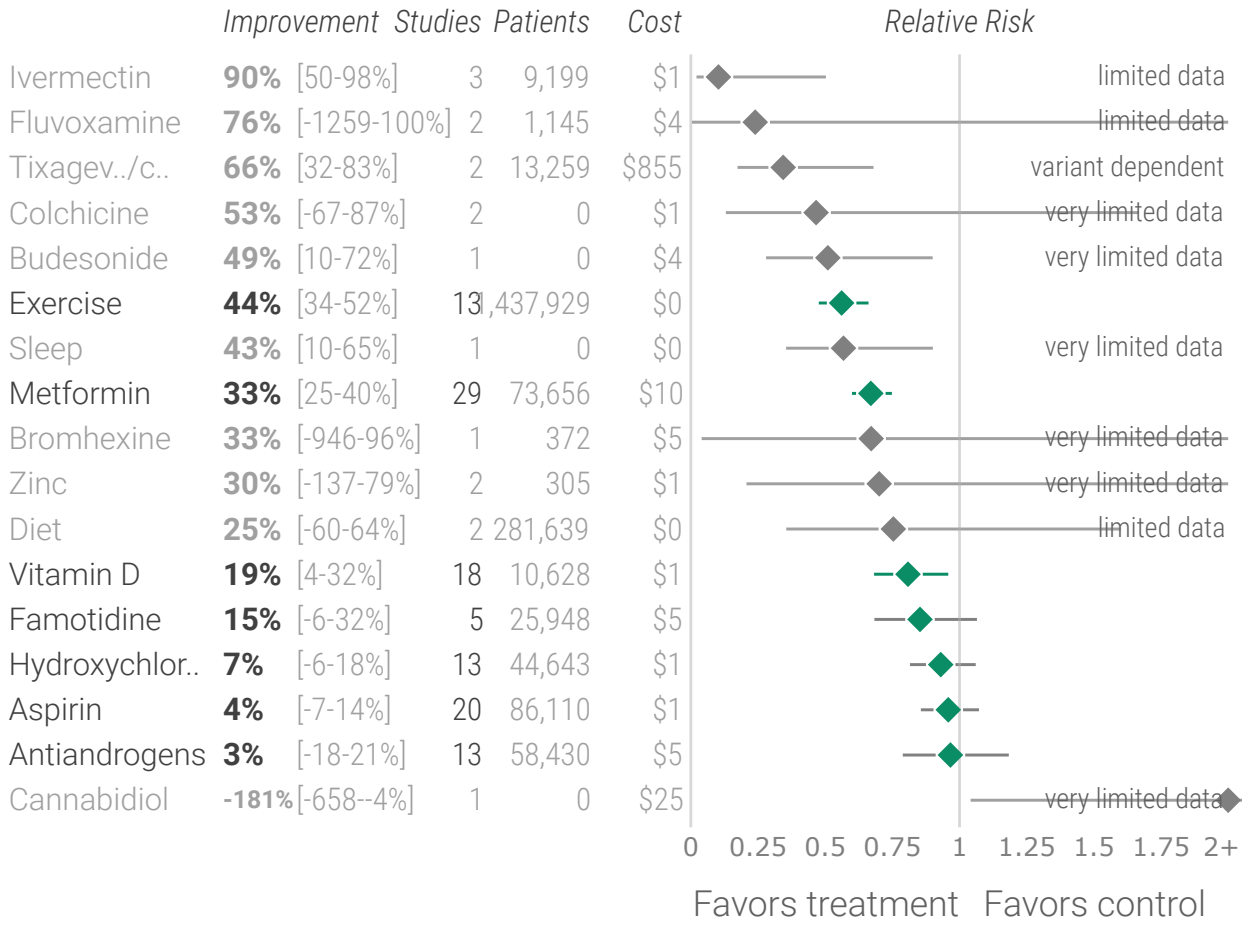
Random effects meta-analysis of early treatment mortality results. Treatments with ≤3 studies with distinct authors or with <25 control events are shown in grey. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.



Random effects meta-analysis of prophylaxis studies (pooled effects). Treatments with ≤3 studies with distinct authors or with <50 control events are shown in grey. Pooled results across all outcomes are affected by the distribution of outcomes tested, please

see detail pages for specific outcome analysis. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.

Prophylaxis mortality results c19early.com Jun 28, 2022



Random effects meta-analysis of prophylaxis mortality results. Treatments with ≤3 studies with distinct authors or with <25 control events are shown in grey. Protocols typically combine multiple treatments which may be complementary and synergistic, and the SOC in studies often includes other treatments.

LATE TREATMENT						
Physician / Team	*Location*	*Patients*	*Hospitalization*		*Mortality*	
Dr. David Uip (*)	Brazil	2,200	38.6% (850)	Ref.	2.5% (54)	Ref.
EARLY TREATMENT - 32 physicians/teams						
Physician / Team	*Location*	*Patients*	*Hospitalization*	*Improvement*	*Mortality*	*Improvement*

Dr. Roberto Alfonso Accinelli 0/360 deaths for treatment within 3 days	Peru	1,265			0.6% (7)	77.5%
Dr. Mohammed Tarek Alam patients up to 84 years old	Bangladesh	100			0.0% (0)	100.0%
Dr. Oluwagbenga Alonge	Nigeria	310			0.0% (0)	100.0%
Dr. Raja Bhattacharya up to 88yo, 81% comorbidities	India	148			1.4% (2)	44.9%
Dr. Flavio Cadegiani	Brazil	3,450	0.1% (4)	99.7%	0.0% (0)	100.0%
Dr. Alessandro Capucci	Italy	350	4.6% (16)	88.2%		
Dr. Shankara Chetty	South Africa	8,000			0.0% (0)	100.0%
Dr. Deborah Chisholm	USA	100			0.0% (0)	100.0%
Dr. Ryan Cole	USA	400	0.0% (0)	100.0%	0.0% (0)	100.0%
Dr. Marco Cosentino vs. 3-3.8% mortality during period; earlier treatment better	Italy	392	6.4% (25)	83.5%	0.3% (1)	89.6%
Dr. Jeff Davis	USA	6,000			0.0% (0)	100.0%
Dr. Dhanajay	India	500			0.0% (0)	100.0%
Dr. Bryan Tyson & Dr. George Fareed	USA	4,375	0.2% (9)	99.5%	0.1% (3)	97.2%
Dr. Heather Gessling	USA	1,500			0.1% (1)	97.3%
Dr. Ellen Guimarães	Brazil	500	1.6% (8)	95.9%	0.4% (2)	83.7%
Dr. Syed Haider	USA	4,000	0.1% (5)	99.7%	0.0% (0)	100.0%
Dr. Mark Hancock	USA	24			0.0% (0)	100.0%
Dr. Mollie James	USA	3,500	1.1% (40)	97.0%	0.0% (1)	98.8%
Dr. Roberta Lacerda	Brazil	550	1.5% (8)	96.2%	0.4% (2)	85.2%
Dr. Ben Marble	USA	150,000			0.0% (4)	99.9%
Dr. Edimilson Migowski	Brazil	2,000	0.3% (7)	99.1%	0.1% (2)	95.9%
Dr. Abdulrahman Mohana	Saudi Arabia	2,733			0.0% (0)	100.0%
Dr. Carlos Nigro	Brazil	5,000	0.9% (45)	97.7%	0.5% (23)	81.3%
Dr. Benoit Ochs	Luxembourg	800			0.0% (0)	100.0%
Dr. Valerio Pascua one death for a patient presenting on the 5th day in need of supplemental oxygen	Honduras	415	6.3% (26)	83.8%	0.2% (1)	90.2%
Dr. Brian Proctor	USA	869	2.3% (20)	94.0%	0.2% (2)	90.6%
Dr. Anastacio Queiroz	Brazil	700			0.0% (0)	100.0%
Dr. Didier Raoult	France	8,315	2.6% (214)	93.3%	0.1% (5)	97.6%
Dr. Karin Ried up to 99yo, 73% comorbidities, av. age 63	Turkey	237			0.4% (1)	82.8%
Dr. Roman Rozencwaig patients up to 86 years old	Canada	80			0.0% (0)	100.0%

Dr. Vipul Shah	India	8,000			0.1% (5)	97.5%
Dr. Vladimir Zelenko	USA	2,200	0.5% (12)	98.6%	0.1% (2)	96.3%
Mean improvement with early treatment protocols		219,013	Hospitalization	**95.1%**	Mortality	**93.7%**

Physician results with early treatment protocols compared to no early treatment. A more detailed analysis requires information on the patient populations, however results are consistent with the extensive controlled trial evidence that shows a significant reduction in risk with many early treatments, and improved results with the use of multiple treatments in combination.

Treatment	Improvement (early)	Studies (early)	China	India	USA	Indonesia	Pakistan	Brazil	Nigeria	Bangladesh	Russia	Mexico	Japan	Ethiopia	Philippines	Egypt	Vietnam	DR Congo	Germany	Iran	Turkey	Thailand	United Kingdom	France
Budesonide	82%	1																						
Remdesivir	76%	2																						
Vitamin D	74%	7																						
Proxalutamide	71%	3																						
Bamlaniv../e..	69%	8																						
Hydroxychlor..	63%	38																						
Ivermectin	63%	35																						
Zinc	61%	4																						
Casirivimab/i..	57%	15																						
Paxlovid	47%	7																						
Molnupiravir	44%	7																						
Fluvoxamine	39%	4																						
Sotrovimab	38%	5																						
Favipiravir	37%	12																						
Vitamin C	22%	4																						

Early treatments approved by >2 countries. 72 countries have officially approved treatments. Details.

ZINC

Alahmari	977 patients late treatment: 30% shorter hospitalization [p<0.0001]
Stambouli	115 patient prophylaxis RCT: 68% fewer symptomatic cases [p=0.36], 5% f…
Kumar	192 patient early treatment RCT: 89% improved recovery [p=0.05]

ASPIRIN

Botton	31,072,642 patients prophylaxis: 4% higher combined mortality/intubation …
Santoro	7,824 patients late treatment PSM: 38% lower mortality [p=0.02]
Formiga	20,641 patients prophylaxis PSM: 3% higher mortality [p=0.48], 3% higher v…

EXERCISE

Li	Meta analysis: 40% lower hospitalization [p<0.0001]

IVERMECTIN	
Mirahmadizad…	261 patient early treatment RCT: 67% lower ventilation [p=0.37], 46% lower…
Popp	Incorrect meta analysis. Authors originally wrote a highly biased meta anal…
Rezai	609 patient late treatment RCT: 31% lower mortality [p=0.36], 50% lower v…
Rezai	549 patient early treatment RCT: 9% higher ICU admission [p=0.95], 36% hi…
Williams	*In Vitro* analysis of ivermectin from 11 different sources showing highly va…
Naggie	1,591 patient late treatment RCT: 5% higher hospitalization [p=1], 68% low…
VITAMIN D	
Karonova	110 patient late treatment RCT: 86% lower ICU admission [p=0.11] and 7% …
FAVIPIRAVIR	
McMahon	199 patient early treatment RCT: 1% higher need for oxygen therapy [p=1] …
Sirijatuphat	93 patient early treatment RCT: 64% faster improvement [p=0.0005], 43% l…
SOTROVIMAB	
Aggarwal	30,247 patients early treatment: 38% lower mortality [p=0.62], 18% lower h…
PAXLOVID	
Dryden-Peters…	30,322 patients early treatment: 45% lower hospitalization [p=0.002]
Pfizer	1,145 patient early treatment RCT: 86% lower ICU admission [p=0.12] and …
Najjar-Debbiny	180,351 patients early treatment: 46% lower severe cases [p=0.0002]
Arbel	109,213 patients early treatment: 81% lower mortality [p=0.02] and 67% lo…
DIET	
Jagielski	95 patients: 82% fewer cases [p=0.005]
TIXAGEVIMAB/CILGAVIMAB	
Montgomery	903 patient early treatment RCT: no change in mortality [p=1], 50% lower s…
CURCUMIN	
Askari	Small RCT 46 outpatients in Iran, 23 treated with curcimin-piperine, showi…
HCQ	
Tu	180 patients late treatment: 17% lower mortality [p=0.81]

Recent studies (see the individual treatment pages for all studies):

Jun 27	Late	*Alahmari et al., …*	hosp. time, ↓30.2%, p	*Factors Associated with Length of Hospital St…*
	Details	Retrospective 977 hospitalized patients in Saudi Arabia, showing significantly shorter hospit…		
Jun 23	Meta	*Li et al., medRxi…*	hosp., ↓40.0%, p<0.0(	*Association of physical activity and the risk of …*
	Details	Meta analysis of 17 studies, showing a dose-response relationship with higher levels of phy…		
n 23				

Ju	Early	***Mirahmadizad***...	ventilation, ↓66.9%, p	*Efficacy of single-dose and double-dose iverm*...
	Details	RCT with 131 24mg ivermectin, 130 12mg ivermectin, and 130 placebo patients, showing no...		
Jun 23	Late	***Karonova*** *et al.*,...	ICU, ↓85.9%, p=0.11	*Effect of Cholecalciferol Supplementation on t*...
	Details	RCT with 56 cholecalciferol and 54 control hospitalized patients with vitamin D insufficiency ...		
Jun 22	Late	***Santoro*** *et al., J*...	death, ↓38.0%, p=0.0	*Aspirin Therapy on Prophylactic Anticoagulatio*...
	Details	HOPE-COVID-19 PSM retrospective 7,824 patients, comparing prophylactic anticoagulation ...		
Jun 21	Meta	***Popp*** *et al., Coc*...	meta-analysis	*Ivermectin for preventing and treating COVID-19*
	Details	Incorrect meta analysis. Authors originally wrote a highly biased meta analysis that avoided ...		
Jun 18	Early	***Aggarwal*** *et al.*,...	death, ↓38.0%, p=0.6	*Change in Effectiveness of Sotrovimab for Pre*...
	Details	Retrospective 30,247 outpatients in the USA, showing no significant differences with sotrovi...		
Jun 17	PrEP	***Botton*** *et al., R*...	death/int., ↑4.0%, p=0	*No association of low-dose aspirin with severe*...
	Details	Retrospective 31 million people without cardiovascular disease in France, showing no signifi...		
Jun 17	PrEP	***Stambouli*** *et al.*...	symp. case, ↓68.4%, p	*COVID-19 prophylaxis with Doxycycline and Zi*...
	Details	Prophylaxis RCT with 59 zinc + doxycycline, 56 doxycycline, and 57 placebo healthcare work...		
Jun 16	Early	***Dryden-Peterso***...	hosp., ↓45.0%, p=0.0	*Nirmatrelvir plus ritonavir for early COVID-19 a*...
	Details	IPW retrospective 30,322 age 50+ outpatients in the USA, showing lower hospitalization with...		
Jun 16	Early	***Rezai*** *et al., Fro*...	death, ↑4.9%, p=1.00	*Non-effectiveness of Ivermectin on Inpatients* ...
	Details	RCT 549 low risk outpatients in Iran. Reported outcomes are very different from the pre-spe...		
Jun 14	Early	***McMahon*** *et al.*...	oxygen, ↑1.0%, p=1.0	*Favipiravir in Early Symptomatic COVID-19, A R*...
	Details	RCT with 99 favipiravir and 100 placebo patients in Australia, all except one being outpatient...		
Jun 14	In Vit...	***Williams****, T., Do*...	*In Vitro*	*Not All Ivermectin Is Created Equal: Comparing*...
	Details	*In Vitro* analysis of ivermectin from 11 different sources showing highly variable antiparasiti...		
Jun 14	Early	***Pfizer*** *Press Re*...	death, ↓66.8%, p=0.5	*Pfizer announces additional phase 2/3 study r*...
	Details	EPIC-SR update reporting that the primary endpoint was not met. Minimal details are provid...		
Jun 12	Late	***Naggie****, S., med*...	death, ↑194.7%, p=1.0	*Ivermectin for Treatment of Mild-to-Moderate* ...
	Details	RCT low-risk outpatients with very late treatment (median 6 days, 25% ≥8 days) in the USA, ...		
n 9 Jun 12	Early	***Angkasekwinai*** *et al., Antibiotics, doi:10*...		*Safety and Efficacy of Ivermectin for the Preve*...
	Details	Low-risk RCT in Thailand with zero mortality, reporting no significant differences with the ad...		

Ju.	News	***Cadegiani**, F. (N...*	news	*Frontiers Fraudulent Retraction*
	Details	Details on the censorship of .		
Jun 8	Early	***Sirijatuphat** et ...*	improv., ↓63.9%, p=0.	*Early Treatment of Favipiravir in COVID-19 Pati...*
	Details	RCT 93 patients in Thailand showing significantly faster clinical improvement with favipiravir...		
Jun 7	Early	***Montgomery** et...*	death, ↓0.2%, p=1.00	*Efficacy and safety of intramuscular administr...*
	Details	RCT 910 outpatients in the USA, 456 treated with tixagevimab/cilgavimab, showing significa...		
Jun 6	Early	***Askari** et al., Tri...*	no recov., ↑125.0%, p	*The efficacy of curcumin-piperine co-suppleme...*
	Details	Small RCT 46 outpatients in Iran, 23 treated with curcimin-piperine, showing no significant di...		
Jun 2	Early	***Najjar-Debbiny** ...*	severe case, ↓46.0%,	*Effectiveness of Paxlovid in Reducing Severe C...*
	Details	Retrospective 180,351 patients in Israel, 4,737 treated with paxlovid, showing significantly lo...		
Jun 2	Late	***Cecconi** et al., ...*	death, ↓29.4%, p=0.6	*Efficacy of short-course colchicine treatment i...*
	Details	RCT 240 hospitalized patients with COVID-19 pneumonia, mean 9 days from the onset of sy...		
Jun 1	Early	***Arbel** et al., Res...*	death, ↓81.0%, p=0.0	*Oral Nirmatrelvir and Severe Covid-19 Outcom...*
	Details	Retrospective 109,213 patients in Israel, 3,939 treated with nirmatrelvir, showing lower mort...		
May 31	Early	***Annweiler** et al....*	death, ↓30.0%, p=0.2	*High-dose versus standard-dose vitamin D sup...*
	Details	RCT comparing single dose 400,000IU and single dose 50,000IU vitamin D in France, showin...		
May 30	Early	***Kumar** et al., C...*	no recov., ↓89.2%, p=(	*Efficacy and Safety of Aspirin, Promethazine, a...*
	Details	RCT 260 patients in India, 130 treated with aspirin, promethazine, vitamin C, D, B3, zinc, and ...		
May 29	PrEP	***Young-Xu** et al.,...*	death, ↓64.0%, p=0.0(	*Tixagevimab/Cilgavimab for Prevention of CO...*
	Details	PSM retrospective 1,848 immunocompromised patients given tixagevimab/cilgavimab prop...		

We aim to cover the most promising early treatments for COVID-19. We use pre-specified effect extraction criteria that prioritizes more serious outcomes, for details see methods. For specific outcomes and different treatment stages see the individual pages. Not all treatments are covered here, effectiveness has been reported for many other treatments in studies. Of the 1,874 studies, 1,259 present results comparing with a control group, 1,133 are treatment studies, and 126 analyze outcomes based on serum levels. There are 25 animal studies, 52 *in silico* studies, 101 *in vitro* studies, and 99 meta analyses.