

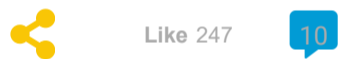
An Old Drug Tackles New Tricks: Ivermectin Treatment in Three Brazilian Towns



By [TrialSite Staff](#) September 16, 2020



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TrialSite News continues to develop a global network of individuals, from all walks of life, participating and sharing their experiences from around the world. They share a common bond: a dedication to health, community well-being and research, from randomized controlled trials to real world observations, contributing important observations related to COVID-19. Alan Cannell is one of these individuals. Originally from the UK, but based in the southern part of Brazil for many years, Mr. Cannell, an engineer by training who has participated in major projects around the world, shares his research observations as to the use of Ivermectin in Brazil. As TrialSite recently discussed, some municipal health departments in Brazil have approved Ivermectin-based regimens targeting COVID-19. This is a similar pattern to observations in some other parts of South America.

The Introduction

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Financial Times Adds to Argument for Ivermectin



New York Supreme Court Judge Order: Give The Patient Ivermectin As Court Battle Leads to Ivermectin for Successful Treatment Against COVID-19

We were caught by the COVID outbreak in Paris. Despite the rumors coming out of Italy, the situation in France didn't look so bad and, on Friday March 9, the bars and restaurants were full. On Monday, the city went into full lockdown. After three weeks and a series of cancelled flights, we arrived back in Brazil only to be greeted by another COVID lockdown.

I knew from experience that Vitamin D boosts the immune system and that zinc reduces the effects of common cold coronaviruses, so we stocked up on supplements. Then in June, word got out about ivermectin and it seemed to worth looking into. I was struck

by the very low COVID rates in some East African countries where large scale distribution of ivermectin every 6 months is carried out to control River Blindness and other parasites, such as [Ethiopia and Mozambique](#) and having worked as an engineer in Maputo in Mozambique, I know that the ties between this region and South Africa are very strong (Johannesburg is only about a 500 km drive away), yet their COVID levels were far lower than in South Africa. After seeing videos of a Brazilian doctor, Dr Lucy Kerr, on the use of

prevention kits with ivermectin to the entire population (about 200,000) and some 120,000 people took up the offer. The Mayor (a qualified doctor) authorized this treatment through the Municipal Health Service, however, public attorneys and the medical establishment were extremely critical as there were no 'complete medical trials' to justify the expense of this use of ivermectin (Brazil is a tropical country with plenty of nasty parasites of its own, so ivermectin is approved by ANVISA – the Federal drug control agency – and was sold over-the-counter). Other nearby municipalities adhered to this plan, as did the State Capital (Florianopolis), parts of the Capital's Metropolitan Area and several industries, making this initiative partly state-wide along the coast.

ANVISA promptly restricted sales and limited its use to parasite control, a move questioned by the city of Natal, Capital of the Rio Grande do Norte State – RN, with a population of about 1 million and which had given instructions to treat initial COVID symptoms with ivermectin in early June, as well as a preventive measure for Municipal Health staff. Again, this was questioned by the medical establishment with a petition signed by over 200 doctors requesting a change in policy. However, the State Regional Medical Board claimed that the law covering State Medical Boards (No. 3.268/1957, Article 15) allowed this protocol and that States and Municipalities had been given the right to determine treatments by a recent Supreme Court decision. On June 30 the Mayor then announced the distribution of a million doses of ivermectin to the population via the Municipal Health Services. At this point the topic had become politicized with groups pro (such as the Municipal COVID Response Science Committee) and against (Federal University and State Public Action Committee). The Municipal body then [relaxed lockdown rules and recommended the reopening of schools](#). In late July, the second largest town in the State, Mossoró also opted to distribute 'kits' with vitamin D and ivermectin to the low-income population. Local drug stores mentioned that there was a run on private stocks of ivermectin so a large (but unknown) percentage of the largely mixed race population received one dose by the end of July.

Meanwhile, on the left bank of the Amazon River, the COVID-19 Medical Committee of the State of Amapá opted in May to treat patients with a combination of the drugs Azithromycin and Ivermectin, which had been tested on the team's doctor, her relatives and a group of 40 patients – all with positive results. The Committee stressed that this is not a protocol for the entire population, but a preventive mechanism for those who are at risk or have had contact with a possible carrier. The results seemed promising, yet the reaction of the establishment was stunningly negative. As an example, a specialist from the Brazilian Society of Infectology claimed during a video conference hosted by a well-known journalist that: "personal experiences are a horror show in terms of evidence, there may be other factors such as the intensity of the virus or that it didn't affect vulnerable groups". All Brazilians know that the ethnic background of Amapá is partly black and largely Native American, groups that are known to be vulnerable. Also, the upstream State of Amazonas was hit extremely hard in April, as was Pará State on the right bank of the Amazon, both suffering high death rates and a critical lack of Intensive Care Units, thus putting the population of Amapá at high risk.

The Results

The question of how to interpret the results of these experiences is complicated. 'Evidence' is only considered valid for full orthodox medical trials (double blind, placebo, phasing, etc.) and this is perfectly understandable for any new drug or treatment. However, in areas such as traffic safety (a major cause of trauma in public health) it's not possible, for example, to test the use of child-seats with an orthodox medical protocol. An engineering approach is used: data is analyzed, tests with dummies are carried out and legislation enacted. Follow-up analysis then shows if the predicted benefits took place.

These Brazilian experiences are thus interesting test cases from this engineering point-of-view. The three cities are in different regions with vastly different demographics and ethnicity and similar sized towns in the same areas can be used as 'controls'. State-wide impacts can also be compared with data from neighboring states.

So what was the impact of ivermectin on the number, severity and spread of COVID cases? The first table shows the drop in 'average deaths for the last 7 days' as compared to the same indicator 14 days earlier for 9 States. The data is for September 14 from the [official government site](#) and the national press consortium (a), which gathers all municipal and state data. Thus the second week of September is compared to the third week in August. As ivermectin was mostly administered during July and the average period for intensive care is around 19 days or two to three weeks (Mato Grosso do Sul Health Service), if this preventive treatment in had any impact on mortality rates, this should start to become apparent after about the third week in August.

Region	State	Change in average deaths (%) previous week compared to 2 weeks ago (a)	Total COVID related deaths	Deaths/100k
South	Santa Catarina	-36	2529	35,6
	Paraná	-3	3823	35,3
	Rio Grande do Sul	-5	4055	33,4


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North	Rio Grande do	-65	2315	66
East	Norte			
	Ceará	62	8666	95,1
	Paraíba	-30	2627	65,4

Each region has similar levels of COVID related deaths/100 k of population. Death rates were higher among populations in the North and in Ceará; however, the three states with major cities that adopted an **ivermectin protocol** show a much greater drop.

The second table shows the new confirmed cases per month for the **three towns**, along with data from similar towns in the same regions that did not adopt the ivermectin protocols. Chapecó is in the West of Santa Catarina, Ananindeua is a suburb of Belém on the other side of the Amazon and João Pessoa is the Capital of Paraíba State 150 km to the South of Natal. The data is from the Consortium (14/9) and population estimates for 2020 are from the Brazilian Institute of Geography – IBGE.

Region	Confirmed New Cases /month	June	July	August	Population 2020 (1000)	% August/Av June July
South	Itajaí	2123	2854	998	223	40%
	Chapecó	1760	1754	1405	224	80%
North	Macapá	7966	2481	2370	503	45%
	Ananindeua	1520	1521	1014	535	67%
North East	Natal	9009	7554	1590	890	19%
	João Pessoa	9437	7963	5384	817	62%

The last column shows the percentage of cases in August in relation to the averages of June and July. August was different in all three towns with an ivermectin protocol, the numbers for the three test case towns show that new cases in August were only 31% of the average value for June and July, while in the control towns this percentage was 70%. These numbers strongly suggest that for all three towns severity (COVID related deaths) was reduced and a much lower level of new cases were confirmed (generally after reported symptoms). The data does not indicate if the spread of the virus fell, as more cases may have been asymptomatic and many towns are now gaining 'herd immunity'.

Total population size is about 1500 k for both the test and control groups with a total number of cases of about 32 k. For a transport survey this would imply a 95% Confidence Level in the results. Of course, this is not the case for medical research, but if any measure caused a similar rapid reduction in say, child traffic accident trauma, it would certainly catch the attention of the scientific community and public opinion.

Podcast Forthcoming

The author of this article, Alan Cannell, will share his experiences as a resident in Southern Brazil on a forthcoming podcast. Learn more about why municipal health agencies in Brazil started to make Ivermectin available in that country.

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