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AFFILIATED INSTITUTION

1- Department of Implantology - GOE / Uniavan.

2- Postgraduate Department in Health Sciences - Federal University of Amapá.

3- Milan University of Studies, Department of Clinical and Community Sciences, Vanderbilt University.

4- Centro Studi GISED, Bergamo.

KEY WORDS

Amapá, Amazon, Brazil, COVID-19, Coronavirus, SARS-COV 2, Pandemic.

Éber Coelho Paraguassu¹, Anneli Mercedes Celis de Cardenas², Rosemary Ferreira de Andrade², Carlo La Vecchia³, Luigi Naldi

Correspondence should be Addressed to Éber Coelho Paraguassu ; paraguassutans@gmail.com

ORIGINAL ARTICLE

The Covid-19 explosion in the state of Amapá: how is the most preserved region in the Brazilian Amazon currently fighting the SARS-COV 2 pandemic?

The state of Amapá is located in the extreme north of Brazil, within the Amazon rainforest and is crossed by the Equator. It has a hot and humid climate with rains that last 8 months a year and 4 months of unrelenting sun that melts rubber from car seals, fries eggs on the floor and even cooks a whole egg tub, in case you forget in a car exposed to the sun . It was believed that with this potent solar incidence, the Sars-COV 2 virus would not have so much impact in this region, a terrible mistake! Today Amapá has the highest incidence of Covid-19 in the whole of Brazil, with a maid of 600 cases per hundred thousand inhabitants and in the Amazon it is the 3rd in deaths and loses in this item only to the state of Amazonas and Pará.



Paraguassu et al.

The Covid-19 explosion in the state of Amapá: how is the most preserved region in the Brazilian Amazon currently fighting the SARS-COV 2 pandemic?

A explosão do Covid-19 no estado do Amapá: como a região mais preservada da Amazônia brasileira luta atualmente contra a pandemia de SARS-COV 2 ?

O estado do Amapá fica situado no extremo norte do Brasil, dentro da floresta Amazônica e é cortado pela linha do Equador. Possui um clima quente e úmido com chuvas que duram 8 meses ao ano e 4 meses de sol implacável que derrete borrachas de vedamentos de carros, frita ovos no chão e até cozinha uma cuba de ovos inteira, caso esqueça dentro de um carro exposto ao sol. Acreditava-se que com esta incidência solar tão potente o vírus Sars-COV 2 não teria tanto impacto nesta região, um terrível engano! Hoje o Amapá tem a maior incidência de Covid-19 em todo o Brasil, com mais de 600 casos por cem mil habitantes e na Amazônia é o 3º em mortes e perde neste quesito apenas para o estado do Amazonas e Pará.

Palavras chave: *Amapá, Amazônia, Brasil, COVID-19, Coronavírus, SARS-COV 2, Pandemia.*



The state of Amapá is located in the extreme north of Brazil, within the Amazon rainforest and is crossed by the Equator. It has a hot and humid climate with rains that last 8 months a year and 4 months of unrelenting sun that melts rubber from car seals, fries eggs on the floor and even cooks a whole egg tub, in case you forget in a car exposed to the sun . It was believed that with this potent solar incidence, the Sars-COV 2 virus would not have so much impact in this region, a terrible mistake! Today Amapá has the highest incidence of Covid-19 in the whole of Brazil, with a maid of 600 cases per hundred thousand inhabitants and in the Amazon it is the 3rd in deaths and loses in this item only to the state of Amazonas and Pará.

Table 1 shows the COVID-19 incidence of deaths and contagion across the Amazon region of Brazil.

Síntese de casos, óbitos, incidência e mortalidade

	Casos	Óbitos	Incidência/100mil hab.	Mortalidade/100mil hab	Atualização
> AP	5.655	157	668,7	18,6	22/05 19:15
> TO	2.205	49	140,2	3,1	22/05 19:15
> AM	27.038	1.669	652,4	40,3	22/05 19:15
> PA	21.469	1.937	249,6	22,5	22/05 19:15
> RR	2.306	83	380,7	13,7	22/05 19:15
> AC	3.343	80	379,1	9,1	22/05 19:15
> RO	2.774	106	156,1	6,0	22/05 19:15

Source: State Health Secretariats. Brazil, 2020 [4]

Casos= cases

Óbitos= deaths

Incidência/100 mil habitantes= Incidence / 100 thousand inhabitants

Mortalidade/ 100 mil habitantes= mortality / 100 thousand inhabitants

Atualização= update

In this graphical representation, we can see that Amapá has the third highest incidence of deaths from COVID-19 per hundred thousand people and the highest incidence from contamination, in the entire Amazon region. This incidence of contaminants in Amapá is also the highest in Brazil, currently the epicenter of Latin America in number of cases by Covid-19.

Amapá decrees lockdown against covid-19; state is the 1nd in incidence of the virus.

The entire state of Amapá has been under lockdown since Tuesday (May 19). The measure was announced, this Friday (15), by the governor, Waldez Góes (PDT) and is valid for 10 days. At the end of April the state was already one of the main centers for the advance of the pandemic in Brazil.



The functioning of essential services, such as supermarkets, wholesalers, pharmacies and banks was maintained. "Everything that works today in Amapá will continue to work, that is not the problem, the problem is the number of unnecessary people circulating on the streets and exposing themselves to being affected by the virus", explained the governor before beginning the decree.

In Macapá, in the capital, the restriction on the circulation of vehicles was also adopted. "We will be more rigid from the sanitary barriers of circulation of vehicles, alternating the odd and even plates, rotating vehicles, closing public places for the circulation of people. So, this rigidity is necessary even according to the incidence of the virus ", detailed the governor on the operation of the blockade.

According to Góes, the stricter isolation was based on scientific studies and adopted to prevent new deaths by covid-19. "Data indicate that if we are no longer rigid in social isolation, in 15 days we will have between 350 and 400 deaths in Amapá," he said. [1]

AP government directs chloroquine to patients with mild Covid-19 conditions; understand the protocol.

The government of Amapá adopted a protocol that guides doctors to dispense with the use of chloroquine for the treatment of patients with mild Covid-19 conditions. The therapeutic proposal was produced by the medical committee of the Center for Emergency Operations in Public Health (Coesp), created by the state government during the pandemic [7,8].

The protocol continues to be adopted in the state even with recent studies that pointed out that the drug used against malaria has not been proven effective against the coronavirus Sars-Cov-2, which has side effects and may be associated with increased deaths among patients with Covid-19.

For cases with mild symptoms, the recommendation is hydroxychloroquine, chloroquine diphosphate associated with azithromycin and the association, or not, with some other antimicrobial, which may be ivermectin and nitazoxanide.

On Thursday (15) the Governor of Amapá, Waldez Góes, and the Mayor of Macapá, Clécio Luís Vieira, met by videoconference with representatives of the other 15 municipalities to update the protocol developed for the service network across the state - the latest changes took place on May 10.

According to the state government, the protocol created by the medical committee began to be considered in early April, and was updated by the Amapá Regional Council of Medicine (CRM).

The Federal Council of Medicine (CFM) does not recommend the use of hydroxychloroquine for patients undergoing treatment for Covid-19. The agency said, however, that it decided to release doctors to prescribe the drug in three specific cases.

This Friday (15), in a live broadcast on the official profiles of the city of Macapá, Vieira stated that in the capital this protocol has been adopted for about 20 days. Doctors Ana Chucre and Pedromar Melo, who are part of the Coesp medical committee, also commented on the protocol. They stress that the proposal is free.

"It is not an obligation. It is a proposal of free medical prescription, with medications that there is some scientific evidence in the viral non-replication in the initial phase of the coronavirus. Among them we have chloroquine, and as an alternative we have ivermectin and nitazoxanide. [...] It is not a cake recipe. We are not instituting a cure for the coronavirus. We are trying to minimize or shorten the cycle," said Ana Chucre.



Pharmacy at UBS Marabaixo, in Macapá, dispenses medication for treatment of Covid-19 - Photo: Gabriel Flores / Macapá City Hall. [5]



The doctor added that this is an experience, which "has no scientific nature", but that she felt that most of the patients she attended and who followed this protocol in the early period had an improvement or did not progress to the most severe stage of the disease.

"With this, we seek to expand this knowledge, since here in Amapá we have a high rate of infection with a low number of beds. We want to prevent or block, if possible, people from evolving, or being hospitalized, or going into a way serious considering all the difficulties ", declared Ana.

The protocol is aimed at primary care, from the screening of patients with or without risk factors or comorbidities, to the medical diagnosis of mild, moderate or severe cases. [2]

Nurse with Covid-19 in the AP denounces lack of medical assistance hours before dying.

It was at the workplace that the nurse Evandro da Silva Costa asked for help. Diagnosed with Covid-19, he was admitted to the Hospital de Clínicas Alberto Lima (Hcal), in the Center of Macapá, and even against his will he was transferred to the Covid Center 2, in the North Zone of the capital.

He passed away on Friday (15). Upon arriving at the unit, according to friends, Evandro did not receive medication and medical assistance, thereby denouncing the situation on a social network.

In one of the messages he says he was not taken to an ICU with a respirator: "here I was only played in the living room with O2". In another section, the nurse states: "I was sent to die, I have no assistance. Only on oxygen. I am going to die, colleagues."

The professional died shortly after sending the messages. According to his friend and also a nurse, Odilon Ribeiro, Evandro was in a room without medical assistance and even had to drink water from the sink.

"He had no assistance. I talked to him the morning before his death where he reports that he was in an abandoned room alone, and he even drank water from the sink. This is very painful. This is very cruel," told Ribeiro.

This Saturday (16), nurses, technicians and assistants demonstrated at Avenida FAB, in front of Hcal. In addition to Evandro, two more health workers died on Friday due to the new coronavirus: nursing technicians Viviane Brito and Sayonara de Souza Vaz.

iviane worked at the Basic Health Unit (UBS) in the Fazendinha district, 9 kilometers from Macapá. Sayonara worked at UBS Américo Coelho, in the municipality of Cutias do Araguari, 135 kilometers from the capital.

Participant in the demonstration, the nurse from the Mobile Emergency Care Service (Samu), Maria Araújo, said that Amapá's health system is collapsed. She says she was taken off work due to illness.

"The system is collapsed. We from Samu transferred more than 10 patients on duty. Today, we are more than 20 remote workers. We are returning little by little. I was also removed by Covid", reported the nurse.



Protest on Avenida FAB - Photo: Rede Amazônica / Reproduction [6]

The deputy secretary of Coping with Covid-19, Maracy Andrade, declared during an interview to JAP1 this Saturday, that the State will open a space exclusively for health workers and military personnel already diagnosed.

"The Health Department and myself personally come to the public to regret and speak about the regret of the losses that happened yesterday. In relation to this treatment of health professionals who are sick and exposed: today, the health secretary told me that he will to receive on Monday [18] the union of health professionals precisely, among other alternatives, to treat this specialized service ", guaranteed Maracy. [4]



Deputy Secretary of Coping with Covid-19, Maracy Andrade - Photo: Rede Amazônica / Reproduction [6]

Amapá reached 3,952 thousand infected with the new coronavirus and 116 deaths due to the disease. On Friday, May 18, the State and Municipality decreed a "lockdown", which includes vehicle rotation in the capital. [3,7]

INTEREST CONFLICTS

The authors declare no conflicts of interest

REFERENCES

- 1- Congresso em foco. Available in: <https://congressoemfoco.uol.com.br/governo/amapa-decreta-lockdown-contra-covid-19-estado-e-o-2-em-incidencia-do-virus/>
- 2- Portal G1. (2020). Available in: <https://g1.globo.com/ap/amapa/noticia/2020/05/15/governo-do-ap-orienta-cloroquina-para-pacientes-com-quadros-leves-da-covid-19-entenda-o-protocolo.ghtml>
- 3- Rede Amazônica de televisão. (2020). Available in: <https://g1.globo.com/ap/amapa/noticia/2020/05/16/enfermeiro-no-ap-com-covid-19-denuncia-falta-de-assistencia-medica-horas-antes-de-morrer.ghtml>
- 4- State Health Secretariats. Brazil. (2020). Available in: <https://covid.saude.gov.br/>
- 5- Gabriel Flores. Pharmacy at UBS Marabaixo, in Macapá, dispenses medication for treatment of Covid-19. Portal G1. (2020). Available in: <https://g1.globo.com/ap/amapa/noticia/2020/05/15/governo-do-ap-orienta-cloroquina-para-pacientes-com-quadros-leves-da-covid-19-entenda-o-protocolo.ghtml>

- 6- Rede Amazônica de televisão. Reproduction of the protest on Avenida FAB. (2020). Available in: <https://g1.globo.com/ap/amapa/noticia/2020/05/16/enfermeiro-no-ap-com-covid-19-denuncia-falta-de-assistencia-medica-horas-antes-de-morrer.ghtml>
- 7- Lemos, Pedro, Naomar Almeida-Filho, and Josélia Firmo. "COVID-19, desastre do sistema de saúde no presente e tragédia da economia em um futuro bem próximo." *Brazilian Journal of Implantology and Health Sciences* 2.4 (2020): 39-50.
- 8- Freitas, André Ricardo Ribas, Marcelo Napimoga, and Maria Rita Donalisio. "Análise da gravidade da pandemia de Covid-19." *Epidemiologia e Serviços de Saúde* 29 (2020): e2020119.