COVID-19 : Pacific Islands challenges

Simon Poignant. M.D.¹, Laure Baudouin M.D.¹, Marc Vinclair M.D.¹, Sandrine Mons M.D.¹

¹ Département d'Anesthésie et Réanimation. Hôpital du Taaone, Centre Hospitalier de Polynésie Française, Pirae, Tahiti, French Polynesia.

Corresponding author

Dr Simon Poignant

Département d'anesthésie et réanimation

CHPF Taaone

Avenue du Général de Gaulle - ville de Pirae BP 1640 98713 Papeete

E-mail : poignant.simon@gmail.com

CeRi

To the editor

We read with great interest the article by Kerbaj *et al*¹ published in a recent issue of *Clinical* Infectiuous Disease, on the New Caledonia experience about COVID-19. We really thank the authors for describing their experiences to enlighten medical staff on the organizational difficulties of the Pacific territories. We allow ourselves to highlight the challenges facing the Pacific Islands, by sharing our Polynesian experience. Indeed, the health organization must deal with a large territory, with international isolation for the management of stocks and the comorbidities of the inhabitants. All these parameters prompted the authorities to quickly proceed to quarantine and a lockdown when few cases were present. The Polynesian population is around 280,000 people spread over more than 70 islands, an area equivalent to Europe, 70% of the population living on the island of Tahiti. As in the entire South Pacific, people have significant co-morbidities known to be risk factors for severe acute respiratory syndrome due to coronavirus 2 (SARS-CoV-2)². The rate of obesity is one of the highest in the world ³ and around 20% of patients aged 20 to 79 with diabetes ⁴. In addition, half of Polynesians live in promiscuity in a large family with seniors ⁵. Moreover, the management of medical evacuation in case of exponential patient flow remains a challenge. The first confirmed case of COVID-19 in French Polynesia was announced on March 11 and the first admission to the intensive care unit on March 12. Polynesian government measures were quickly announced. The disembarkation of cruise ships was stopped, followed by the reduction of inter-island movements, the automatic quarantine of residents returning to French Polynesia and the closure of schools. Since Friday March 13, air connections to or from Europe via the United States have ceased, with the suspension of all international flights from March 21, which should have been the main vector of COVID-19's spread ⁶. The general lockdown started on March 20. On May 28, 61 cumulative patients, including 3 patients hospitalized in intensive care unit and 2 local cases were confirmed positive for the spread of COVID-19 on 3 different islands. None of the patients died.

The South Pacific is slightly affected and the COVID-19 network was able to guarantee the organization of the hospital and triple the capacity of the intensive care beds. The first French Polynesia measures to reduce isolation began on April 29. We strongly agree with the authors that the next challenge for the health and intensive care system in the South Pacific is the exit of international containment and the impact of the opening of air links with the countries strongly affected by COVID-19 such as metropolitan France and the United States. However, the last case of Covid-19 in French Polynesia comes from a cluster on an Ecuadorian fishing boat where 29 sailors were positive, and demonstrates the need to remain vigilant in order to provide adequate care in the event of massive influx of patients.

Certi

Contributors

SP collected data and write the article. MV helped in the first draft writing. SM and LB contributed to the final approval of the version to be submitted. All authors commented on previous version manuscript and read and approved the final manuscript.

the set

Declaration of interests

We declare no competing interests.

ce?

References

1. Kerbaj J, Carzola C, De Greslan T et al. COVID-19 : The New Caledonia experience. Clin Infect Dis. 2020 ; 16;ciaa600.

2. Zhou F, Yu T, Du R, *et al.* Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet* 2020. 395:1054-1062

3. NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. *Lancet*. 2017; 390: 2627-2642

4. Prévalence du diabète (% de la population âgée de 20 à 79 ans) – French Polynesia. Fédération internationale du diabète, Atlas du diabète. 2019.

5. Torterat. J, Bolduc. M. Institut de la statistique de la Polynésie française. Insee première. N° 1721. Novembre 2018

6. Craig A, Heywood A and Hall J. Risk of COVID-19 importation to the Pacific islands throught global air travel. Epidemiology and Infection. 2020. 148, E71

2 ceqte