

## Letter to the editor

# The effect of social fear on the establishment of fever standards in rural hospitals during the coronavirus disease (COVID-19) pandemic

Ryuichi Ohta<sup>1</sup> and Hirotaka Ikeda<sup>1</sup>

<sup>1</sup>Community Care, Unnan City Hospital, Japan

### Abstract

The coronavirus disease (COVID-19) pandemic has complicated the work of general physicians due to the vagueness of fever standards. Because of the high virulence of the causative virus, the disease is rapidly spreading worldwide, even reaching the rural areas in Japan. During the first wave of the pandemic, the Japanese government set the standard as a temperature of 37.5°C lasting for more than four days. However, after the government deleted this standard from its website, there was confusion in the medical institutions, as they struggled to set their fever standards. As a result, social fear might force healthcare professionals to bring down the standard for fever to increase the sensitivity and identify patients with COVID-19 more accurately. During the second wave, the fever standard was set at 37°C to enable high sensitivity. Subsequently, general physicians had to approach many people with temperatures higher than 37°C who came to the hospital seeking treatment for their symptoms or to visit their families. People seek to avoid contracting the COVID-19 infection for health-related and social reasons. When there is a possibility of healthcare professionals testing positive, hospitals may have to shut down and face criticism from society, as the mass media generally accuses these hospitals of mismanagement.

**Key words:** COVID-19, fever standard, Japan, pandemic

(J Rural Med 2021; 16(2): 126–127)

### Dear Editor

The coronavirus disease (COVID-19) pandemic has complicated the work of general physicians due to the vagueness of fever standards. Because of the high virulence of the causative virus, it is rapidly spreading worldwide, even reaching the rural areas in Japan. Thus, the establishment of fever standards is an issue for community hospitals. Owing to the fear of contracting COVID-19, specialists hesitate to treat patients with fever. Therefore, they may be treated by general physicians, particularly in community hospitals. This trend may have widespread ramifications, as the pandemic's second wave is expected to affect the entire nation.

The fever standard for suspecting COVID-19 is vague. A temperature  $>38^{\circ}\text{C}$  can be an indicator for fever and infection; however, its applicability may depend on patients' age, sex, and other characteristics such as the medical history<sup>1)</sup>. During the first wave of the pandemic, the Japanese government set the standard as a temperature of 37.5°C lasting for more than four days<sup>2)</sup>. Consequently, Japanese medical institutions adhered to this standard and screened their patients based on it. However, the government deleted this standard from its website. Therefore, it led to confusion in the medical institutions as they struggled to set their fever standards.

Fever is a common and familiar symptom both for medical staff and people in general. Thus, the social fear of COVID-19 can instigate people's willingness to be diagnosed as early as possible. As a result, social fear might force healthcare professionals to lower the standard for fever to increase the sensitivity and identify patients with COVID-19 more accurately<sup>3)</sup>. Our hospital is in a Japanese rural area where three COVID-19 cases have been reported. General physicians manage patients in the hospital. During the pandemic, patients with COVID-19 were treated mainly by general physicians who were, however, not involved in the disease's infection control. Further, during the second wave, the fever

Received: September 18, 2020

Accepted: November 6, 2020

Correspondence: Ryuichi Ohta, Community Care, Unnan City Hospital, 96-1 Iida, Daito-cho, Unnan-shi, Shimane 699-1221, Japan

E-mail: ryuichiohta0120@gmail.com

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives

(by-nc-nd) License <<http://creativecommons.org/licenses/by-nc-nd/4.0/>>.



standard was set at 37°C to enable high sensitivity. Consequently, general physicians had to approach many people with temperatures higher than 37°C who came to the hospital seeking treatment for their symptoms or to visit their families.

People seek to avoid contracting COVID-19 infection for health-related and social reasons. When there is a possibility of healthcare professionals testing positive, hospitals may have to shut down and face criticism from society, as the mass media generally accuses these hospitals of mismanagement<sup>4</sup>. The fear of COVID-19 may not permit medical staff to think rationally, which affects hospital administra-

tion. Furthermore, the social fear of COVID-19 can result in a lowering of the fever standard in medical situations, which may increase patient flow in the hospitals and cause an increased burden on medical staff including general physicians<sup>5</sup>.

**Conflicts of interest:** The authors declare no conflict of interests for this article.

## Acknowledgment

We thank all the participants of this study.

## References

1. El-Radhi AS. Fever in common infectious diseases. In: Clinical Manual of Fever in Children. El-Radhi AS, Carroll J, Klein N, Eds. Springer Nature, New York, 2019; 85–140.
2. Tashiro A, Shaw R. COVID-19 pandemic response in Japan: What is behind the initial flattening of the curve? Sustainability 2020; 12: 5250. [[CrossRef](#)]
3. Clemency BM, Varughese R, Scheafer DK, *et al.* Symptom criteria for COVID-19 testing of health care workers. Acad Emerg Med 2020; 27: 469–474. [[Medline](#)] [[CrossRef](#)]
4. Ministry of Health, Labor, and Welfare. Understanding appreciation of the present conditions of healthcare professionals confronting with COVID-19 [updated and cited September 1, 2020]. [https://www.mhlw.go.jp/stf/newpage\\_11124.html](https://www.mhlw.go.jp/stf/newpage_11124.html).
5. Usher K, Durkin J, Bhullar N. The COVID-19 pandemic and mental health impacts. Int J Ment Health Nurs 2020; 29: 315–318. [[Medline](#)] [[CrossRef](#)]