

Letter to the Editor

COVID-19 pandemic and shortage of personal protective equipment in Tokyo clinics

Dear Editor,

Clinicians worldwide are aware of the shortage of personal protective equipment (PPE) in their daily practice in the wake of the coronavirus disease 2019 (COVID-19) pandemic.^{1,2} This PPE shortage has forced health-care staff to reuse single-use masks, clean face shields with bleach wipes, or use substitutes, which may expose health-care workers to danger.² Peace Winds Japan (a non-governmental organization) decided to donate PPE to local clinics from their stockpiles for disaster relief, since local primary care clinics play important roles in frontline triage and referral of symptomatic COVID-19 patients. In order to distribute PPE to local clinics in Tokyo, the most affected area in Japan as of late April 2020, Peace Winds Japan conducted a survey to gain information on the shortage of medical supplies.

Online questionnaires were implemented using Google Forms, and the link to the questionnaires was sent to members of Tokyo Medical Association on 17 April 2020. Due to the limited amount of PPE available for donation, registration was limited to 125 facilities on a first-come, first-serve basis and was closed the same day. On 17 April 2020, when the survey was conducted, the total number of patients with COVID-19 was 9,845 nationwide in Japan, including 2,792 patients in Tokyo.³

Of the 125 registered clinics, the median number of outpatient visits per day was 50 (interquartile range, 37.5-70). The PPE shortage status is shown in Table 1. Surprisingly, at the time of the survey, PPE was unavailable in approximately half of the clinics. The proportion of clinics with

PPE shortages (remaining supply ≤ 50 pieces) for treating COVID-19 patients were 72.8%, 65.6%, 83.2%, and 79.2% for isolation gowns, vinyl aprons, face shields, and goggles for eye protection, respectively. In addition, 66.4% of facilities had shortages (remaining supply ≤ 100 pieces) of surgical masks, which is a minimal requirement for protection against respiratory droplets.

In general, in outpatient clinics, donning an N95 respirator is not required when aerosol-producing procedures are not performed. However, the stock of PPE, even surgical masks and gloves for standard precautions, was critically low. In addition, there was a shortage of gowns and eye protection needed to treat patients with suspected COVID-19.

The present data are limited to local health-care systems; however, it also highlights the serious shortage of PPE at clinics in Tokyo during the pandemic. Despite attempts, many facilities had difficulties obtaining additional supplies, as usual suppliers were dependent on imports from abroad. It is necessary to secure supplies that are not imported to prepare for future pandemics. To face PPE shortages, strategies to minimize the need for PPE are important, as described in the WHO report.⁴ The use of acrylic and vinyl partitions in addition to telemedicine are other important approaches.

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Table 1. PPE inventory survey results

	0	1–50	51–100	101–200	>201	No answer
Surgical masks	18 (14)	39 (31)	26 (21)	19 (15)	13 (10)	10 (8)
N95 respirators	72 (58)	33 (26)	4 (3)	0 (0)	0 (0)	16 (13)
Medical gloves	15 (12)	26 (21)	21 (17)	16 (13)	17 (14)	30 (24)
Isolation gowns	66 (53)	25 (20)	3 (2)	1 (1)	0 (0)	30 (24)
Vinyl aprons	59 (47)	23 (18)	6 (5)	2 (2)	1 (1)	34 (27)
Face shields	75 (60)	29 (23)	1 (1)	0 (0)	0 (0)	20(16)
Disposable caps	62 (50)	22 (18)	8 (6)	0 (0)	0 (0)	33 (26)
Goggles	61 (49)	38 (30)	1 (1)	0 (0)	0 (0)	25 (20)

Data are shown as *n* (%). PPE, personal protective equipment.

DISCLOSURE



Approval of the research protocol: N/A.

Informed consent: N/A.

Registry and the registration no. of the study/trial: N/A.

Animal studies: N/A.

Conflict of interest: None.

Mototaka Inaba,^{1,2}  Hiromichi Naito,¹ Taizo Sakata,²
and Atsunori Nakao¹ 

¹*Department of Emergency, Critical Care, and Disaster
Medicine, Dentistry and Pharmaceutical Sciences,
Okayama University Graduate School of Medicine,
Okayama, and* ²*Peace Winds Japan, Jinseki, Japan*
E-mail: moto178@yahoo.co.jp

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