

COVID-19 Fever Screening Needs Regular Safety and Conformity Assessments

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Received: October 14, 2020; **Published:** December 31, 2020

To respond to the COVID-19 pandemic, experts pooled and deployed various digital technologies that assist in the early tracking of cases. Recognizing fever as a common symptom of COVID-19, fever screening devices are in use globally to check for elevated body temperature in high throughput areas and checkpoints. It is an initial assessment to determine if a person has an elevated temperature potentially caused by COVID-19 [1-4]. Many re-opening institutions are also monitoring staffs' temperature at the gate. The temperature screening devices are available with different thermometric technologies, including infrared, mercury-in-glass, plastic strip, and liquid crystal. Their contribution to assistive diagnosis is preeminent, while legislation and regulation for appropriate use of the devices deserve careful considerations.

To reduce the risk of cross-contamination of COVID-19, many countries use infrared thermometers that measure the temperature of the temporal artery in the forehead [5-7]. Such products have standard guidelines to follow. Temperature takers should keep as much distance from clients as they can, wear a cloth face covering, clean their hands regularly, use gloves, and clean the thermometer devices properly. These warrant the need to determining what human resource capacity and training are needed to perform the screening safely and effectively.

Infrared thermometers tend to be less accurate to speak for body temperature; a concern that really matters. It is often noticed that body temperature readings are inconsistent, and not so precise. They measure surface temperature and not the core body temperature. They are prone to be influenced by many factors including environmental aspects, skill-capacity of the person handling the device and the ideal distance for using the device. Their accuracy can be affected by moisture, dust, smoke or other elements in the air. These may lead to misdiagnosis of the disease.

Temperature checks are raising privacy concerns [8,9]. Re-opening institutions and companies check the temperature of staff and guests regularly and prohibit entry of those with elevated temperature. This presents stigma and discrimination, especially in screening areas that do not have a separate designated isolation area for suspected individuals. Appropriate procedures are not in place to guide measures to be taken for suspected cases. For instance, some airlines have a procedure in place to refund tickets for a passenger found to have a higher temperature, and this need to be practiced across all airlines. Determinations of risk based on country of origin are not uncommon, inducing emotional abuse and discrimination.

COVID-19 fever screening requires coordinated efforts at the local level to assure that fever takers retain core knowledge of authorized procedures. National authorities and regulator agencies have the responsibility to undergo regular inspections to ensure that the devices in use are accurate and the screening area meets the requirements. General maintenance, calibration, cleaning and storage procedures should always be made following manufacturer's instructions. Locally appropriate standard operating procedures should be in place to guide the process and upsurge the safety practice.

Funding

Not applicable.

Competing Interests

The authors declare that they have no competing interests.

Authors' Contributions

BG developed the idea; BG and TM write the manuscript and approved the final version for publication.

Bibliography

1. Norman FF, *et al.* "Travel-related fever in the time of COVID-19 travel restrictions". *Journal of Travel Medicine* (2020); taaa104.
2. Chen H, *et al.* "Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records". *Lancet* 395.10226 (2020): 809-815.
3. Hsiao S-H, *et al.* "Measurement of body temperature to prevent pandemic COVID-19 in hospitals in Taiwan: repeated measurement is necessary". *The Journal of Hospital Infection* 105.2 (2020): 360-361.
4. Manyazewal T, *et al.* "The fight to end tuberculosis must not be forgotten in the COVID-19 outbreak". *Nature Medicine* 26.6 (2020): 811-812.
5. Aw J. "The non-contact handheld cutaneous infra-red thermometer for fever screening during the COVID-19 global emergency". *The Journal of Hospital Infection* 104.4 (2020): 451.
6. Chen HY, *et al.* "Investigation of the Impact of Infrared Sensors on Core Body Temperature Monitoring by Comparing Measurement Sites". *Sensors* 20.10 (2020): 2885.
7. Weizman Y, *et al.* "Use of wearable technology to enhance response to the Coronavirus (COVID-19) pandemic". *Public Health* 185 (2020): 221-222.
8. Morley J, *et al.* "Ethical guidelines for COVID-19 tracing apps". *Nature* 582.7810 (2020): 29-31.
9. Kapa S, *et al.* "Contact Tracing to Manage COVID-19 Spread-Balancing Personal Privacy and Public Health". *Mayo Clinic Proceedings* 95.7 (2020): 1320-1322.

Volume 10 Issue 1 January 2021

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