COVID-19: TEMPERATURE SCREENING FOR HEALTHCARE PERSONNEL

A Rapid Guidance Summary from the Penn Medicine Center for Evidence-based Practice
Last updated April 21, 2020 11:00 am All links rechecked April 20 unless otherwise noted.

Key questions answered in this summary

- When should hospitals implement temperature screening for healthcare personnel (HCP)?
- What temperature threshold should be used for screening?
- What should be done when a HCP is found to have an elevated temperature?

Summary of major recommendations

- Mass temperature screening programs using external infrared (IR) devices alone are ineffective for detecting infected persons. Overall screening effectiveness can be improved by adopting layered measures.
- Daily screening for symptoms of COVID-19 including fever is recommended and may be completed either by the HCP or the healthcare facility.
- Some hospitals are using temperature screening of HCP reporting for work even though it has a low sensitivity.
- Recommended fever thresholds are either > 100.0°F or > 100.4°F.
- Some hospitals are having HCP wear a sticker if they have passed that day's screening process.
- HCP who have a fever or other respiratory symptoms are asked to return/stay home and communicate with their supervisor and Occupational Health.
- There is insufficient guidance on return-to-work plans for HCP with positive temperature screens who did not get tested for COVID-19.

Public health agency guidelines on if/when to implement HCP temperature screening for HCP

Source	Recommendations
CDC April 15	Healthcare facilities should consider foregoing contact tracing for exposures in favor of universal source control and screening for fever and symptoms of COVID-19 before every shift. See Appendix for details.
ECDC April 8	HCP with any exposure to COVID-19 should self-monitor for COVID-19 symptoms daily including daily recording of temperature.

Public health agency guidelines on HCP screening temperature process and threshold

Source	Recommendations
CDC April 15	Fever is defined as either measured temperature > 100.0 °F or subjective fever. Healthcare facilities could conduct temperature and symptom screenings or have HCP report temperature and symptoms to Occupational Health prior to starting work.
ECDC April 8	HCP should self-monitor symptoms and avoid use of fever-reducing medication for a few hours before taking their temperature.

Public health agency guidelines on HCP elevated temperature/failed screening protocol

Source	Recommendations
CDC April 16	HCP who develop fever or symptoms consistent with COVID-19 should self-isolate and notify public health authorities and their employer in order to coordinate consultation and referral for further evaluation.
ECDC April 8	If symptoms develop, HCP should self-isolate, seek medical advice, preferably by phone, and follow recommendations from the national/local authorities. *CEP NOTE: the guideline does not state what to do in the instance of fever in the absence of other symptoms.*

Medical center policies on HCP screening

Hospital	Central Maine	Vanderbilt	Washington	UCSF	MD Anderson	UT Southwestern	Kentucky
Update Date	Mar. 24	Mar. 26	Mar. 18	Mar. 16	Not reported	Not reported	April 6
Method of monitoring	Active	Active	Self-assess	Self-assess	Active	Active	Self-assess
Fever	✓	✓	✓		✓	✓	✓
Self-reported symptoms	✓		✓	✓	✓	✓	✓
Travel history				✓	✓	✓	
Unprotected exposure	✓				✓		
Frequency	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Location	Facility entrance	Facility entrance	Facility entrance	Facility entrance	Facility entrance separate from patients	Facility entrance	Facility entrance
Screening by second person	✓	✓			✓	✓	
Self-attestation			✓				
Screening personnel		Redeployed parking valets					
Screening equipment		HCP may use their own thermometer	Form attesting asymptomatic status.	Online screening (Conversa) & proof of completion	Glass enclosures to protect screening personnel	No-touch thermometers	Online screening
Temperature threshold	100.4°F	100.0°F	Not reported	Not reported	100.4°F	100.0°F	
Sticker or other credential		✓		✓		✓	✓

Hospital	Central Maine	Vanderbilt	Washington	UCSF	MD Anderson	UT Southwestern	Kentucky
If HCP FAILS screen							
HCP sent home	✓	✓	✓	✓		✓	✓
Fever alone warrants HCP to stay home	✓	✓	✓	✓		✓	
Any symptom warrants HCP to stay home	NOTE 1	✓	✓	✓			
Screening team contacts Occup. Health	✓	✓					
HCP contacts supervisor and/or Occup. Health	✓	✓		✓		✓	✓
Other protocol	NOTE 1	Given info. on testing sites and hotline.	NOTE 2				HCP referred to drive-thru employee testing

NOTE 1— If the HCP meets any 2 of 3 criteria (fever, symptoms, possible exposure), they are sent to the ED with a mask for COVID-19 testing and their name is reported to Occupational Health. If the HCP has a fever but does not meet the other criteria, they are sent home and their name is reported to Occupational Health. If the HCP only has symptoms or a history of possible exposure, they are required to wear a mask, can proceed to work, and their name is reported to Occupational Health

NOTE 2—If the HCP is positive for COVID-19, they should remain isolated for at least 7 days from symptom onset. If the HCP is positive for COVID-19 or did not receive a COVID-19 test, they must be symptom-free for 72 hours before returning to work.

NOTE 3— Hospital policies are more relevant towards implementation of a guideline versus omitting a policy as some entries left blank are due to missing information and do not necessarily reflect that an institution does not institute that policy.

Evidence reviews on HCP temperature screening

ECRI March 31	Mass temperature screening programs using IR alone are ineffective for detecting infected persons due to a low number of infected individuals presenting with fever at the time of screening, use of fever-reducing drugs, inconsistent technique by operators, and environmental factors.
ISO March 2017	Temperature screening is challenged by both a lack of sensitivity and specificity. Overall screening effectiveness can be improved by adopting layered measures.

Definition of terms

Guideline: Guidance developed by a professional society or government agency, intended for use at multiple hospitals.

Policy: Guidance developed at a hospital for use at that hospital. It may be based on guidelines or on expert opinion.

About this report

A Rapid Guidance Summary is a focused synopsis of recommendations from selected guideline issuers and health care systems, intended to provide guidance to Penn Medicine providers and administrators during times when latest guidance is urgently needed. It is not based on a complete systematic review of the evidence. Please see the CEP web site for further details on the methods for developing these reports.

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Appendix. CDC recommendations for HCP daily screening

- As part of routine practice, HCP should be asked to regularly monitor themselves for fever and symptoms of COVID-19.
    - HCP should be reminded to stay home when they are ill.
    - If HCP develop fever (≥ 100.0°F) or symptoms consistent with COVID-19 while at work they should keep their cloth face covering or facemask on, inform their supervisor, and leave the workplace.
- Screen all HCP at the beginning of their shift for fever and symptoms consistent with COVID-19
    - Actively take their temperature and document absence of symptoms consistent with COVID-19. If they are ill, have them keep their cloth face covering or facemask on and leave the workplace.
    - Fever is either measured temperature > 100.0°F or subjective fever. Note that fever may be intermittent or may not be present in some individuals, such as those who are elderly, immunosuppressed, or taking certain medications (e.g., NSAIDs). Clinical judgement should be used to guide testing of individuals in such situations. Respiratory symptoms consistent with COVID-19 are cough, shortness of breath, and sore throat. Medical evaluation may be warranted for lower temperatures (< 100.0°F) or other symptoms (e.g., muscle aches, nausea, vomiting, diarrhea, abdominal pain headache, runny nose, fatigue) based on assessment by Occupational Health. Additional information about clinical presentation of patients with COVID-19 is available.