Topic Brief: COVID-19 Vapor Treatment

Date: 3/29/2021
Nomination Number: 0947

Purpose: This document summarizes the information addressing a nomination submitted on March 26, 2021 through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: The nominator proposes the use of hot air, or vapor, in the lungs to kill the novel coronavirus (SARS-CoV-2), which causes coronavirus disease 2019 (COVID-19).

Program Decision: The EPC program synthesizes and appraises existing evidence, and does not support primary research. As such, this nomination does not meet the criteria for appropriateness. We have included additional information and related resources that might be useful to the nominator.

Assessment Methods

We assessed nomination for priority for a systematic review or other AHRQ EHC report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one.

1. Determine the *appropriateness* of the nominated topic for inclusion in the EHC program.
2. Establish the overall *importance* of a potential topic as representing a health or healthcare issue in the United States.
3. Determine the *desirability of new evidence review* by examining whether a new systematic review or other AHRQ product would be duplicative.
4. Assess the *potential impact* a new systematic review or other AHRQ product.
5. Assess whether the *current state of the evidence* allows for a systematic review or other AHRQ product (feasibility).
6. Determine the *potential value* of a new systematic review or other AHRQ product.

Background and Related Resources

- There is high interest in identifying effective interventions for treatment of COVID-19.
- Social media posts have discussed the use of inhaled steam to kill coronavirus, sometimes including other ingredients such as orange, lemon, or peppermint.
- The NIH COVID-19 treatment guidelines do not include steam therapy with any ingredient.[1]
- Recent research has explored inhaled steam for treating COVID-19.
    - A recent commentary summarizes evidence around the use of heat for treatment of viral infections.[2]
    - A small study of 10 people with confirmed SARS-COV2 infection suggested that it might be beneficial in early infection. They noted that steam cannot reach the

bronchial tree, bronchi and lungs, and it is unlikely it could be beneficial once the infection has moved deeper into the lungs. These results are preliminary, and additional study is required.[3]
- Continued research and confirmation of results is required before consideration for COVID-19 treatment.

References

1. COVID-19 Treatment Guidelines. National Institutes of Health website. Updated March 5, 2021. Accessed March 30, 2021. https://www.covid19treatmentguidelines.nih.gov/whats-new/

2. Cohen M. Turning up the heat on COVID-19: heat as a therapeutic intervention. F1000Res. 2020 Apr 24;9:292. doi: 10.12688/f1000research.23299.2.

3. La Marca G, Barp J, Frenos S, et al. Thermal inactivation of SARS COVID-2 virus: Are steam inhalations a potential treatment? Life Sciences 2021; 265: 118801. https://doi.org/10.1016/j.lfs.2020.118801.

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Conflict of Interest: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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