



Assessing Dyspnea using Virtual Care during COVID Pandemic (ADViC2)

A pilot prospective observational study

INTRODUCTION & BACKGROUND:

- As a direct result of the COVID-19 pandemic, an increasing proportion of primary care is delivered virtually.
 - There has been an urgent need for clinical tools to assess the patient objectively in place of in-person physical examinations.
 - A 2016 study identified a novel method for assessing dyspnea using the “Roth Score” that has been suggested by some physicians as a potential tool to virtually evaluate patients.
 - The Roth Score has been controversial and is currently NOT recommended for use in the primary care setting by experts due to concern for inadequate evidence supporting its use.
- However, it warrants further study as part of an overall virtual health assessment for dyspnea.**

THE ROTH SCORE¹:

- Patients are asked to take a deep breath in and count out loud from 1 to 30 in their native language as quickly as possible in a single breath.
- Two measurements are taken:
 - 1) Time elapsed until count 30 reached or until the patient takes another breath.
 - 2) The highest number reached in one breath.

KEY RESEARCH OBJECTIVES:

- 1) To investigate the correlation of the Roth Score to SpO₂ and other established clinical dyspnea scores in the primary care setting.
- 2) To investigate the correlation of the Roth Score to patient-oriented outcomes in the primary care setting: (a) admission to hospital (b) unplanned repeat clinical encounters (c) positive COVID-19 test status within 7 days of the initial assessment.

HOW CAN YOU GET INVOLVED?

- 1) **Help us recruit participants** by referring to us any patients you see in your clinic IN PERSON with dyspnea due to a potential respiratory etiology (e.g. infection, COPDE).
- 2) **Note down the SpO₂ and time it was taken** on the Participant Information Sheet and provide the information sheet to your patient to self-refer to the study.
- 3) Provide a copy of the Participant Informed Consent Form for the patient to read.
- 4) Our research team will take care of the rest including obtaining the full research consent.

RISKS:

For you:

- 1) Extra time from you/your staff - estimated to be less than 10 min of total staff time.

For your patients:

- 1) Confidentiality - the researchers are taking numerous steps to ensure your confidentiality (i.e. use of secure fax) to transfer your first name and phone number from the clinic to the researchers.
- 2) Extra time - estimated to be no more than 45 min. in total.
- 3) Slight worsening of symptoms during the study encounter - not expected to be out of proportion to auscultation of chest during a physical exam.

BENEFITS:

For you:

- 1) Once our results are available, you as a clinician will have a better understanding of the Roth Score on whether it can be a usual tool for you in managing patients via virtual care.
- 2) Being involved in an exciting primary care-driven and focused clinical study.

For your patients:

- 1) Potential better care with improved clinician understanding of how to manage dyspnea using virtual care.

<http://advicstudy.ca>

Principal Investigator: Dr. Tung Siu

Phone Number: (236) 562-2487

Email: tung.siu@viha.ca