Accuracy of WHO case definition for SARS screening

To the Editor: I congratulate Dr. Wong Wing Nam and his coauthors on their outstanding work during the Hong Kong SARS outbreak and on the excellent overview of their experience, published in *CJEM*.[1] However the authors, and Dr. Thompson in his accompanying commentary,[2] frequently use the term "screening" with respect to the World Health Organization (WHO) definition in a vague manner.

The WHO definition is meant to ensure we count SARS cases consistently and correctly in different jurisdictions. It is a retrospective definition that does not meet the needs of emergency departments (EDs), where we typically see patients early in their illness.

We "screen" patients for possible SARS twice in the ED. The first is at triage when the patient arrives. The tool used by triage nurses must be as close to 100% sensitive as possible, and applicable in a brief assessment. The triage tool will vary with the outbreak conditions in the community at the time. In a community where transmission is occurring outside health care settings, the tool may include ALL patients with any SARS-like signs or symptoms (fever OR cough or other respiratory symptoms OR diarrhea OR malaise, etc.). In Toronto, where transmission was largely confined to specific settings, we had a dynamic list of potential contact sites on our triage tool. Patients had to have a contact history AND any one of the SARS-like symptoms to fail the screen. Those who failed the screen were put into full SARS isolation until complete assessment determined whether this was necessary.

The second SARS "screen" occurs at the time of the disposition decision. At this point, because of potential risk to household contacts and the community, we still target 100% sensitivity but must be more specific to avoid overwhelming the wards with non-SARS admissions. At Mount Sinai Hospital we developed a tool (later modified for province-wide use) to support clinical judgement, which relied on chest imaging (chest x-ray and CT in selected cases), screening blood work and a careful contact history. Persons under investigation were admitted and isolated until further results were available, while low-risk patients were sent home on precautions in a process much like that described by the authors.

The Toronto SARS cohort on average had fever for 48 hours before developing chest symptoms;[3] therefore we believe the WHO definition is useful only as a guide in developing triage- and disposition-support tools for ED decision-making. More sensitive tools reflecting local outbreak conditions are necessary and will evolve as outbreak conditions change. Perhaps the most important lesson from this experience is the need for emergency practitioners who understand our own practice environment to work collaboratively with public health and infection control practitioners to develop the right tools for the right job.

Howard Ovens, MD, FCFP
Head
Department of Emergency Medicine
Mount Sinai Hospital
Toronto, Ont.

References

1. Wong WN, Sek ACH, Lau RFL, Li KM, Leung JKS, Tse ML, et al. Accuracy of clinical diagnosis versus the World Health Organization case definition in the Amoy Garden SARS cohort. Can J Emerg Med 2003;5(6):384-91. Epub 2003 Oct 22.
2. Thompson J. SARS: finding a deadly needle in the haystack [editorial]. Can J Emerg Med 2003;5(6):392-3.
3. Booth CM, Matukas LM, Tomlinson GA, Rachlis AR, Rose DB, Dwosh HA, et al. Clinical features and short-term outcomes of 144 patients sith SARS in the greater Toronto area [published erratum appears in JAMA 2003;290(3):334]. JAMA 2003;289 (21):2801-9. Epub 2003 May 6.

To the Editor: In their retrospective review of SARS cases associated with the Amoy Garden outbreak in Hong Kong,[1] Wong Wing Nam and colleagues question the diagnostic accuracy of the WHO "suspect" case definition for SARS and suggest that it requires revision. The authors make the mistake of confusing a case definition developed for public health and epidemiological purposes with one appropriate for clinical diagnosis. This was not the intent of the WHO or other organizations that established case definitions for the purposes of reporting and counting SARS cases.

Diagnostic criteria and public health case definitions are different and have different purposes. Case definitions are meant to monitor disease incidence and outbreaks in populations and to guide public health management. The current WHO case definitions and public health guidelines for SARS make clear the distinction between case counting and diagnosis.[2] The WHO notes the range of symptoms, including atypical presentations, of SARS patients and provides clinicians with clues for diagnosis. In particular, it is noted that SARS patients may have neither fever nor respiratory symptoms, and that early signs and symptoms may be non-specific. While patients in the early stages of diseases like SARS may have non-specific symptoms, this is not a reason to change case definitions because these patients will eventually go on to declare themselves and get classified appropriately, as they did in the study by Wong Wing Nam and colleagues. If established public health case definitions and guide-

https://doi.org/10.1017/S1481803500008782 Published online by Cambridge University Press