

potent *in vitro* and *in vivo* activity against *B. anthracis*. This project evaluated the *in vitro* activity of omadacycline against a larger set of *B. anthracis* strains across two laboratories.

Methods. Antibiotic susceptibility testing followed Clinical Laboratory Standard Institute methods against a collection of 53 *B. anthracis* strains at the University of Florida (UF) and 50 *B. anthracis* strains at MRIGlobal, representing human and animal isolates from North America, Africa, Europe, Asia, and Australia. Minimum inhibitory concentrations (MICs) for omadacycline and comparators at both sites (doxycycline, ciprofloxacin, levofloxacin, moxifloxacin) were determined by broth microdilution.

Results. Results: In the UF study, omadacycline demonstrated an MIC₅₀ of 0.015 mg/L and an MIC₉₀ of 0.03 mg/L against *B. anthracis*. Omadacycline MIC values were equal to or lower than doxycycline. In the MRIGlobal study, omadacycline demonstrated an MIC₅₀ of 0.06 mg/L and an MIC₉₀ of 0.06 mg/L (Table 1). All comparator MIC values were within ranges previously observed against these strains. Against a ciprofloxacin-resistant strain (MIC = 2 mg/L), omadacycline had an MIC value of 0.015 mg/L; against a doxycycline-resistant strain (MIC = 4 mg/L), omadacycline had an MIC value of 0.06 mg/L. Reproducibility was observed between the 2 laboratories for omadacycline *in vitro* activity against *B. anthracis* (Table 2).

Table 1. MIC Concentration Summary for Omadacycline and Comparators Against *B. anthracis* Strains

MRIGLOBAL (n = 50)					
MIC values, mg/L	Omadacycline	Doxycycline	Ciprofloxacin	Levofloxacin	Moxifloxacin
MIC ₅₀	0.06	0.015	0.06	0.125	0.06
MIC ₉₀	0.06	0.03	0.125	0.125	0.125
Range	0.015-0.125	0.008-4	0.125-0.25	0.015-0.25	0.03-0.25
UNIVERSITY OF FLORIDA (n = 53)					
MIC ₅₀	0.015	0.03	0.12	0.25	0.25
MIC ₉₀	0.03	0.06	0.25	0.5	0.5
Range	≤0.008-0.25	≤0.008-0.25	0.015-2	0.06-2	0.06-2

Table 2. Reproducibility of Omadacycline *In Vitro* Activity Against *B. anthracis* Strains

MIC value, mg/L	<i>B. anthracis</i> strain		
	Ames	Sterne	Vollum
University of Florida	≤0.015	≤0.008	0.015
MRIGlobal	0.06	0.03	0.03

Conclusion. Based on the *in vitro* activity in both studies, omadacycline has the potential to be effective in treating anthrax infection. Reproducibility of omadacycline *in vitro* activity against *B. anthracis* was observed at 2 independent study sites.

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1209. The Evolving Nature of Syndromic Surveillance During the COVID-19 Pandemic in Massachusetts

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Background. We developed a syndromic algorithm for COVID-19 like illness (CLI) to provide supplementary surveillance data on COVID-19 activity.

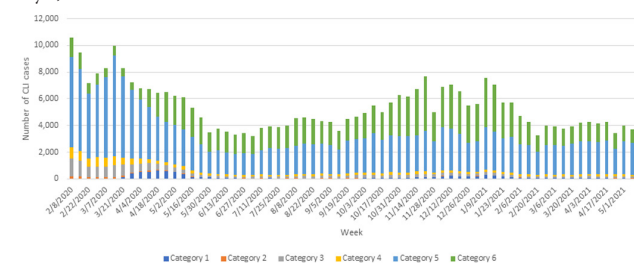
Methods. The CLI algorithm was developed using the Electronic Medical Record Support for Public Health platform (esphhealth.org) and data from five clinical practice groups in Massachusetts that collectively care for 25% of the state's population. Signs and symptoms of CLI were identified using ICD-10 diagnosis codes and measured temperature.

The algorithm originally included three categories: Category 1 required codes for coronavirus infection and lower respiratory tract infections (LRTI); Category 2 required an LRTI-related diagnosis and fever; Category 3 required an upper or lower RTI and fever.

The three categories mirrored statewide laboratory-confirmed case trends during spring and summer 2020 but did not detect the increase in late fall. We hypothesized this was due to the requirements for fever and LRTI. Therefore, we added three new categories defined by milder symptoms without fever: Category 4 requires LRTI-related diagnoses only; Category 5 requires upper or lower RTI or olfactory/taste disorders; and Category 6 requires at least one sign of CLI not identified by another category.

Results. The six-category algorithm detected the initial surge in April 2020, the summer lull, and the second surge in late fall (see figure). Category 1 cases were not identified until mid-March, which coincides with the first laboratory-confirmed cases in Massachusetts. Categories 2 and 3, which required fever, were prominent during the initial surge but declined over time. Category 5, the broadest category, declined during February and March 2020, likely capturing the end of the influenza season, and successfully detected the spring surge and fall resurgence.

Weekly number of COVID-19 like illnesses by category, February 2, 2020 through May 8, 2021



Conclusion. A syndromic definition that included mild upper RTI and olfactory/taste disorders, with or without fever or LRTI, mirrored changes in laboratory-confirmed COVID-19 cases better than definitions that required fever and LRTI. This suggests a shift in medically attended care and/or coding practices during initial vs subsequent surges of COVID-19, and the importance of using a broad definition of CLI for ongoing surveillance.

Disclosures. Michael Klompas, MD, MPH, UpToDate (Other Financial or Material Support, Chapter Author)

1210. Recommendations for Screening and Diagnosis of Chagas Disease in the United States

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Background. Over 300,000 people in the United States are infected with *Trypanosoma cruzi*, the protozoan parasite that causes Chagas disease (CD). Only about 1% of estimated U.S. cases have been identified, usually through blood donor screening, and most people are unaware they have the infection. Screening is critical for increasing case detection and ensuring patients receive appropriate and timely care, but awareness of CD management strategies among healthcare providers is low. Diagnostic guidelines for CD in the United States are needed to increase provider-directed screening and diagnosis.

Methods. Screening recommendations were prepared by the U.S. Chagas Diagnostic Working Group, which consists of clinicians, researchers, and public health experts involved in CD programs. The group agreed on six main questions based on the PICO method (Population, Intervention, Comparison, and Outcome). Subgroups discussed each and proposed initial recommendations, which were then shared and validated within the larger group. The recommendations used the GRADE methodology, assigning two sets of ratings: 1) strength of the recommendation, and 2) quality of the evidence.

Results. The group recommended screening anyone who was born or lived for >6 months in South America, Central America and Mexico (Figure 1). Recent community-based studies found a prevalence of 1-3.8% in this population. Within this population, having a family member with CD, or having clinical conditions suggestive of CD, including electrocardiographic abnormalities, suggest an elevated risk. Screening women of childbearing age and infants born to seropositive women is important for preventing congenital transmission. Test performance may vary depending on several factors, including whether patients are from South America, Central America or Mexico. Confirmation therefore requires positive results on at least two serological tests based on different antigens or formats, in line with Pan American Health Organization (PAHO) recommendations. Once CD is confirmed, patients should receive an electrocardiogram and echocardiogram to monitor for development of cardiac complications.

Conclusion. These CD screening recommendations are meant to be a resource for U.S. healthcare providers to simplify testing of at-risk patients.

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1211. Incidence of All-Cause Community-Acquired Pneumonia in Ontario and British Columbia, Canada, 2002-2018; a Canadian Immunization Research Network (CIRN) study

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