

The Evaluation of Triage Notes Using ESSENCE-FL for Active Case Finding of Zika

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Objective

This study assesses the utilization of triage notes from emergency departments (EDs) and urgent care centers (UCCs) for active case finding in ESSENCE-FL during the Zika response.

Introduction

The Florida Department of Health (DOH) utilizes the Electronic Surveillance System for the Early Notification of Community Based Epidemics (ESSENCE-FL) as its statewide syndromic surveillance system. ESSENCE-FL comprises of chief complaint data from 231 of 240 EDs, representing 96 percent of the total number of EDs in Florida. Historically, syndromic surveillance has categorized patient chief complaint data into syndromes for the purpose of disease surveillance or outbreak detection. Triage notes are much longer free-text, pre-diagnostic data that capture the presenting symptoms and complaints of a patient.

Methods

Triage notes are being collected from 24 EDs, representing ten percent of total reporting EDs, and seven UCCs, representing 17% of total reporting UCCs. Triage notes were made a searchable field in ESSENCE-FL during Zika enhanced surveillance efforts, which facilitated additional case finding of Zika.

During the period of February 3, 2016 – July 25, 2016, a free-text query was created to run against the concatenated chief complaint-discharge diagnosis (CCDD) and triage note fields:

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^zika^,or,^ziki^,or,^zica^,or,^zeeka^,or,^zeeca^,or,^microcep^,or,^zyka^
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Additional queries were created to detect foreign travel visits of interest within the CCDD and triage note fields. Results of these queries were analyzed and communicated to county and regional epidemiologists daily for investigation.

Results

The triage note specific queries identified 18 Zika triage note and 11 foreign travel triage note visits of interest. All of these visits were reviewed and investigated by county epidemiologists. These triage note queries identified one case of Zika that had not been previously reported to public health. Of note, seven additional cases of Zika infection were identified using the CCDD field in ESSENCE-FL (five of the seven flagged in both the CCDD and triage note field).

Conclusions

Results from this analysis provide evidence that triage notes within syndromic surveillance systems play a role in active case finding when emerging diseases arise. However, only 31 out of 272 total reporting facilities are submitting triage note to ESSENCE-FL, representing only 11% of reporting facilities.

Relying on chief complaint and discharge diagnosis data only would have resulted in an undetected case of Zika that would have not been captured by our free-text Zika query.

The increased detection of Zika cases allows for public health intervention, including mosquito control response, which in turn reduces the chance of Zika spreading locally in Florida. Triage notes often provide pertinent information for determining when a

flagged CCDD needs to be investigated further. Making triage notes a required data element for Meaningful Use compliance would benefit case finding conducted through syndromic surveillance.

CHIEF COMPLAINT	PAIN FEVER RASH
DISCHARGE DIAGNOSIS	B349 Viral infection unspecified I10 R197 Diarrhea unspecified I10
TRIASION NOTE	Patient reports recent travel to honduras came back today. Began with fever rash eye redness on Monday. Afebrile at this time. Denies headache. Seen by physician in Honduras diagnosed with UTI without urine test per patient. Given cipro 500mg for treatment. Patient reports rash after taking cipro

Keywords

Zika; Triage note; Outbreak detection

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