HELLENIC CENTER FOR
DISEASE CONTROL & PREVENTION
—
MINISTRY OF HEALTH

SYSTEM OF EPIDEMIOLOGICAL SURVEILLANCE IN POINTS OF CARE FOR REFUGEES/MIGRANTS

General description

Public health surveillance in points of care for refugees/migrants operates in its present form from 16 May 2016 (and as a pilot from April 2016) with daily collection of epidemiological data for selected syndromes/health conditions that are important from a public health point of view. The 14 syndromes or health conditions under surveillance are shown in Table 1.

Table 1: Syndromes/Disease conditions monitored via the System of epidemiological Surveillance in points of care for refugees/migrants

Syndrome/Disease condition
[1] Respiratory infection with fever
[2] Gastroenteritis without blood in the stool
[3] Bloody diarrhoea
[4] Rash with fever
[5] Suspected scabies
[6] Suspected pulmonary tuberculosis
[7] Malaria with positive RDT
[8] Suspected diphteria, respiratory or cutaneous
[9] Jaundice of acute onset
[10] Neurological manifestations of acute onset
[11] Meningitis and/or encephalitis
[12] Haemorragic manifestations with fever
[13] Sepsis or shock (septic, of unknown etiology)
[14] Death of unknown etiology

Data recorded refer to consultations for each syndrome/condition under surveillance in primary health care facilities in refugee/migrant reception centres (RMRC). For syndromes 1

to 5, which have the highest incidence, cumulative data are collected (i.e. number of consultations without any additional information), while for syndromes 6 to 14 some important individual-level information is also collected for patients. In addition, individual-level information is collected for cases with clinical suspicion of measles, rubella, mumps and varicella.

Data are sent daily to the Department of Surveillance and Intervention of KEELPNO by doctors, nurses and other health professionals from services and NGOs staffing primary care facilities in RMRCs.

Data for a given 24-hour period are analyzed on the next day and proportional morbidity indices are calculated (consultations for each syndrome/condition under surveillance as a percentage of the total number of consultations, i.e. the number of consultations for all causes). This analysis is carried out for all RMRCs in the country participating in the system as a whole, and for each RMRC separately. Moreover, weekly data are also analyzed, following the crosscheck/confirmation of some of the collected information, which takes place on the first days of the week following the week of reference.

The index of proportional morbidity (observed proportional morbidity) is compared with the expected proportional morbidity, which is calculated using a statistical model*. The expected proportional morbidity reflects the trend of the preceding 4 weeks; determining the warning threshold takes into account the dispersion of the daily values of proportional morbidity during the whole period since 16/05/2016. Observed proportional morbidity higher than the expected by more than 2 standard deviations (Z-score > 2) is equivalent to a "warning signal". A "warning signal" that appears for at least two consecutive days is equivalent to an "alert signal". The signals are evaluated in terms of importance for public health and, if necessary, they are further investigated, and –if considered appropriate– public health action is organized.

*The expected proportional morbidity is calculated using a quasi-Poisson regression model (Farrington et al, 1996). Long-term trends are incorporated in the model using natural cubic splines (with knots every 4 weeks), rejecting outlier values (Z-score> 3) and –if considered necessary– values corresponding to a confirmed outbreak.