## Abstract

## Epidemiological Profile of Meningitis in Prefecture of Temara, Morocco, 2011-2016

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## Abstract

**Background:** Meningitis remains a serious public health problem worldwide. Morocco has implemented a national program against this disease since 1989, but it still causes high morbidity and mortality, with an average rate of lethality of 10%.

**Objective:** Our study aims to describe the epidemiology profile of meningitis in the prefecture of Temara from 2011 to 2016.

**Methods:** We conducted a descriptive study of all cases of meningitis reported to the Provincial Epidemiology Unit (CPE) of the province of Temara in Morocco between 2011 and 2016. We collected data from the database of the CPE at the prefectural delegation of health. Data analysis was done using the Epi-info software.

**Results:** During our study period, we recorded 140 meningitis cases. Trend shows a maximum of cases in 2012 (34.0%), because we tested an application of instant declaration via internet which was abandoned. Cases were males in 59.0% and most were in urban areas (80.0%). The mean age was 40.5 years and the most affected age group was 5 to 15 years (28.5%). Most cases of meningitis (51.4%) were presumptively attributed to bacterial pathogens without final determination of causative organisms, and a third of cases were viral meningitis (30.0%). Only 9.0% of cases were culture-confirmed. The mains pathogens were Nesseria meningitidis (5 cases = 38.5%) followed by pneumococcus (4 cases, 30.7%) and Heamophilus influenza (1 case, 7.6%). Among patients with known outcome (n=36), case-fatality rate was 33.3%. Investigations around cases were carried out.

**Conclusions:** Meningitis remains an important cause of mortality in Morocco. Surveillance needs to be improved, particularly by computerizing case notifications. Laboratory conditions and improved methods of bacterial detection including isolate serotyping should be available to increase the confirmation rate. We also need to strengthen the involvement of the private sector which is very weak in notification.

(*iproc 2018;4(1):e10624*) doi: <u>10.2196/10624</u>

Edited by Y Khader; this is a non-peer-reviewed article. Submitted 29.03.18; accepted 29.03.18; published 29.03.18.
<u>Please cite as:</u>
Bouzid A, Adnane M, Derfoufi N
Epidemiological Profile of Meningitis in Prefecture of Temara, Morocco, 2011-2016
iproc 2018;4(1):e10624
URL: <u>http://www.iproc.org/2018/1/e10624/</u>
doi: <u>10.2196/10624</u>
PMID:

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