

Title: Influenza severe cases and deaths in Tunisia: Season 2015-2016

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Introduction: Seasonal influenza continues to be a major public health problem worldwide. In fact, this acute viral infection is highly contagious and affects all ages. Although in most cases it's a minor illness, it may lead to severe complications and death especially in high risk populations.

Purpose:
- To describe influenza severe cases and deaths in the season of 2015-2016 and compare it to previous seasons.
- To determine what are the influenza viruses currently circulating and which types have particular virulence in this season
- To suggest recommendations to improve influenza control

Methods: This is a retrospective study based on data provided by the National influenza surveillance unit. It is a descriptive analysis of influenza surveillance data collected from the network of sentinel sites and national influenza center.

Results and discussion:
Influenza surveillance for 2015-2016 lasted from week 40/2015 to week 18/2016. During this season, 96.240 cases of ILI (Influenza-like illness) were collected representing 6.9% of total patients seen at ILI sites. Among these cases, 190 were severe and hospitalized. Their age ranged from 6 months to 73 years with an average of 46.5 years. The hospitalization rate was 0.19% and comparable to the previous season (0.2%).
However, the lethality of these severe cases was significantly higher in 2015-2016 season. In fact, 38 deaths were reported representing 20% (vs 3% in 2014-2015 season). The majority of them were men (57%). The average age was 46.9 years with extremes varying from 6 months to 73 years. The most affected age group was the 50- 65 year group.
Most of the cases who died had risk factors (62.9%) especially diabetes, HTA and obesity. All the cases were not vaccinated.

The virological analysis showed that 57% of severe cases and 77% of influenza deaths were infected with type A (H1N1) pmd09 virus. The rest of the deaths (23%) were due to A (H3N2) virus and only one death was due to virus B.
During week 12, A (H1N1) was predominant and simultaneously the highest number of deaths was reported (10 deaths representing 26.3% of all influenza deaths).

Conclusion: Comparing to last season 2014-2015, the influenza epidemics of 2015-2016 is considered similar in terms of number of ILI cases and hospitalization rate. However, the lethality of severe cases was significantly higher with 38 deaths reported this season.
The type A (H1N1) pmd09 virus was responsible of most of severe cases and deaths, confirming its known virulence.

Biography

Dr Hind Bouguerra has completed her medical studies at the age of 26 years from the Faculty of Medicine of Tunis, Tunisia. She has specialized in Preventive Medicine and Public Health. She has a master of biostatics, epidemiology and clinical research from the Faculty of Medicine of Tunis. She has worked in the Laboratory of Epidemiology at Pasteur Institute of Tunis and in the National Observatory of New and Emerging Diseases of Tunisia, participating in many papers. She has worked mostly in epidemiological surveillance including influenza program in Tunisia which is supported by US/CDC, part of InPRIS project.