Measles among Healthcare Workers during the Ongoing 2017-2018 Epidemic in Greece

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Introduction

• Measles is re-emerging in several developed countries.

• In EU/EEA more than 14,000 cases were notified in 2017 (x 3-times the number notified in 2016).

• From May 2017 Greece experiences a large epidemic, with 2,747 notified cases and three deaths as of May 3, 2018 and a notification rate of 255 / 1,000,000 persons.
Aim

To describe the measles cases among healthcare workers (HCWs) notified in Greece during the current epidemic.
Methods

• Notified measles cases among HCWs

• May 2017 - May 3, 2018

• We retrieved data from the National Surveillance database of notified measles cases.*

* EU definitions
Results

The first case occurred in late July 2017 (week 30/2017)

From July 2017 through May 3, 2018 a total of 117 cases among HCWs were notified. (94 laboratory-confirmed, 14 probable, 9 possible)

HCWs’ median age: 38.1 years (range: 20 – 55 years)

Notification rate: 1429 / 1,000,000 HCWs (x 5.5 times)

HCWs accounted for 4.2% of all cases notified in Greece
Notified measles cases in HCWs, Greece, July 2017 - May 3 2018 (n=117)
Notified measles cases in HCWs, Greece, July 2017 - May 3 2018 (n=117)

Median notification rate: 2 (0-9) cases per week

First half of the epidemic: 2 (0-5) cases per week

Second half of the epidemic: 5 (1-9) cases per week
### Characteristics of HCWs with measles (n=117)

- **Female gender** 83 (70.9%)
- **Immunocompromised** 3 (2.6%)
- **Pregnancy** 1 (0.9%)

- **Healthcare facility**
  - Hospital 107 (91.4%)
  - Primary healthcare center 5 (4.3%)
  - Other 5 (4.3%)

- **Professional category**
  - Physician 45 (38.5%)
  - Nurse / Midwife 38 (32.5%)
  - Supportive personnel 19 (16.2%)
  - Paramedical personnel 11 (9.4%)
  - Administrative personnel 3 (2.6%)
  - Healthcare student 1 (0.9%)
Vaccination status of HCWs with measles per age group, Greece July 27, 2017- May 3, 2018 (n=117)
Clinical course and outcome of HCWs with measles

- Sixty-seven (57.2%) HCWs were hospitalized.

- Measles-associated complications (mainly pneumonia/pneumonitis and/or hepatitis) occurred in 36 (30.8%) HCWs (x 2-times c/w general population)

- Three (2.6%) HCWs were admitted in an intensive care unit and were intubated.

- No HCWs with measles died.
Conclusions

• Our study confirms that HCWs constitute a high-risk group for acquisition of measles and manifestation of serious illness.

• Modifications in the routine vaccination program against measles the past two decades most probably resulted in the suboptimal vaccination coverage among young HCWs.

• Protection of HCWs against measles with a two-doses scheme is imperative.

• Mandatory vaccination of HCWs against measles should be considered, especially in the context of a community epidemic.