Measles, mumps, rubella (MMR) and varicella policy in career fire departments: Rationale, implementation and screening results

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Learning Objectives:
1. List four benefits to fire departments and communities with the implementation of an MMR/Varicella policy.
2. Describe the steps to designing and implementing an MMR/Varicella policy.
3. Identify the expected level of non-immune status for MMR and varicella.

Abstract:

The Centers for Disease Control (CDC) recommends that health care workers, including first responders, be immunized against influenza, hepatitis B, MMR and varicella. Many fire departments spend more time and resource providing emergency medical services than fire suppression. However, many departments have not implemented the CDC recommendation. One must understand the risks associated with non-immunity, as well as the costs that can be mitigated by such a policy. Avoidance of workers' compensation claims, third party actions, cross-contamination between care recipients and co-workers, and extended absences from the workplace requiring overtime coverage are benefits from such a policy.

An MMR/Varicella policy must be developed with input and acceptance from the administration and the union. Such policies are readily integrated into existing post-offer and annual physical examinations.

The CDC estimates that only 5-9% of the population would be non-immune to measles and rubella due to historic public health immunization efforts. Findings from two career fire departments in the San Francisco Bay Area revealed high non-immune rates. Of the 262 firefighters (ages 23 to 58) tested, 46.9% were not immune to one or more of the titered diseases. "Measles only" was highest with 19.8%; "mumps only" with 7.3%; "rubella only" and "measles and mumps together" each with 6.5%. "Varicella only" and other disease titer combinations were 1.5% or less of the total. Year of birth (before or after 1957) was not significant.

These findings of high non-immune rates provide significant implications for occupational health practice and policy related to developing and implementing MMR/Varicella polices for career firefighters to protect themselves and their communities.

UPDATE: On August 5, 2009 Cal-OSHA passed the Aerosol Transmissible Disease Standard (ATD) which mandates testing and vaccination for measles, mumps, rubella and varicella in firefighters.

References:

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