Navy Accession Screening Immunization Program: Should Mumps Be Part Of The Testing Regimen?

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Background

- Navy began serological screening program for recruits in 2009
- MMR vaccine is administered based on results of Measles and Rubella titers
  - MMR given only to non-immune recruits
- If both Measles and Rubella titres show immunity, immunity to Mumps is assumed
Background

• Mumps virus produces serious disease in adults, especially in males
• Mumps vaccine not as effective as Measles and Rubella vaccine in inducing immunity and preventing outbreaks
• Mumps immunity may wane more rapidly than Measles and Rubella immunity over time
• Mumps outbreaks occur despite seemingly high vaccination rates in a population
Background

- Accessions Screening and Immunizations Program (ASIP) has saved the Services resources and spares recruits unwarranted vaccinations
Discussion

• Armed Forces Health Surveillance Center (AFHSC) published data in 2007 in the Medical Surveillance Monthly Report that reviewed serological results in recruits

• AFHSC found Measles and Rubella immune titre rates ranged between 80-85%
  – Thus, 15-20% of accessions received an MMR vaccination

• Mumps immune rates were lower at 74-80%
Discussion

• A Mumps outbreak has not occurred in any of the Services since ASIP has been in place.
• There have been large scale outbreaks of mumps in a Midwest college population in 2006 and a Northeast religious community in 2009.
  – These populations reportedly had good Mumps vaccination rates
Discussion

• DHB question: Given the recent Mumps outbreaks in the United States, should MMR continue to be part of the Navy ASIP?

• Several courses of action to answer this question offered.
Course of Action #1

• Continue current Navy ASIP program.
• Present MMR immunization rate of 10-15% under ASIP of all new Navy accessions at recruit training site enough to prevent Mumps outbreaks or increased incidence.
Course of Action #2

• Drop MMR from ASIP.
• Resume mandatory universal MMR vaccination upon accession.
• No special monitoring of disease rates required for action.
Course of Action #3

• Continue Navy ASIP at recruit training center.
• Monitor Mumps in Service and wider community.
• Re-institute mandatory universal MMR for recruits if Mumps outbreak occur in recruit training site or incidence rises.
• Levels of risk to trigger re-introduction of MMR have not been determined
Questions ?