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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



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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%



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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



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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.



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Course of Action #2

- Drop MMR from ASIP.
- Resume mandatory universal MMR vaccination upon accession.
- No special monitoring of disease rates required for action.



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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



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Questions ?