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Overview

- Membership
- Charge
- Background
- Introduction
- Report Methodology
- Findings and Options

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Membership

Subset of DHB Members--

- Dr. George Anderson (Lead)
- Dr. M. Ross Bullock
- Dr. David Hovda
- Dr. Dennis O'Leary

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Study Charge

"Categorizing Biological Agents of Concern to Assist Mortuary Affairs Operations"
2009

- Joint Mortuary Affairs Center (JMAC) seeks DHB's concurrence with report conclusions

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Background
Part 1 of 2

- U.S. military conducts a range of operations, including operations under the threat of a chemical, biological, radiological, and nuclear (CBRN) attack
- However, DoD currently lacks the policy to govern the safe transport home of contaminated human remains (CHR)

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Background
Part 1 of 2

- Exposure risk from postmortem contamination is not well understood due to a lack of scientific evidence
  - Assume the exposure risk is the same as in living casualties
- Question of occupational health/exposure guidelines.

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Introduction

- U.S. Army Logistics Branch (G-4), under the Office of the Deputy Chief of Staff of the Army and the JMAC
  - Mortuary Affairs Task Force convened a panel of mortuary SMEs which they called the Mortuary Affairs Science and Technology Working Group
- Hypothesized that biological agents of concern do not all necessarily and inherently pose a significant level of risk to those handling decedents' physical remains.

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JMAC Report Methodology

- Developed a framework for categorizing biological agents into post mortem risk groups
- Created an objective risk matrix with individual risk scores
  - Disease and treatment characteristics
  - Best available scientific research
  - Peer reviewed articles and worst-case scenarios.

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Findings and Options

Part 1 of 16

- Finding: The report provides credible scientific support for CHR transportation and provides a basis for final guidance on the issue. Once a SME review is completed, ensuring that the underpinning science has not evolved since the report was issued, it will provide a high level of confidence that the final guidance is scientifically valid.

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Findings and Options

Part 2 of 16

- Option 1A: Members suggest that the concepts provided by the report be used by the Executive Agent as interim guidance while final guidance is developed with the assistance of USAMRIID.

- Option 1B: Members concur with the report as written and suggest that the report be used as final guidance on the issue of CHR transportation.

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Findings and Options

Part 3 of 16

- Finding: The report defines exposure risk postmortem using environmental persistence and living casualty transmission data, which was extrapolated for use in decedents. SMEs also assumed that personal protective equipment (PPE) was worn properly and appropriate to the risk of each agent.

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Findings and Options

Part 4 of 16

- Option 2A: Members propose that the ASD(HA) task the SMEs at USAMRIID to review the definition of exposure risk postmortem and the underlying assumptions used in the report and provide any updates or additions based on the current evidence base.
- Option 2B: Members concur with the definition of exposure risk postmortem and the underlying assumptions used in the report, and suggest that these be applied as appropriate going forward.
- Option 2C: Members do not concur with the definition of exposure risk postmortem and the underlying assumptions used in the report, and request a revised document to include any updates or additions based on the current evidence base.

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Findings and Options

Part 5 of 16

- Finding: The report categorized biological agents into postmortem risk groups by considering five different parameters: complexity of care or treatment, transmission hazard, need for N95 or greater respiratory protection, persistence of the agent in the environment, and CDC Biosafety Level categorization. These parameters were evaluated using risks from live tissue, which were extrapolated to postmortem decedents.

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Findings and Options

Part 6 of 16

- Option 3A: Members propose that the ASD(HA) task the SMEs at USAMRIID to review the biological parameters and categorization scheme used to classify the biological agents.
- Option 3B: Members concur with the biological parameters and categorization scheme used to classify the biological agents, and suggest that these be applied as is going forward.
- Option 3C: Members do not concur with the biological parameters and categorization scheme used to classify the biological agents, and request that the issue of CHR transportation be revisited by the Executive Agent.

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Findings and Options

Part 7 of 16

- Finding: In order to provide context for the biological agents of concern, the report used specific non-WMD biological agents as comparative and benchmark agents regarding exposure risk to those handling decedents. Two of the agents chosen were viruses while the third was a prion. Mortuary personnel should be familiar with these agents post mortem, which should provide a knowledge and comfort base when interacting with additional agents of concern.

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Findings and Options

Part 8 of 16

- Option 4A: Members propose that the ASD(HA) task the SMEs at USAMRIID to review the benchmark agents used in the report and provide any updates as needed for inclusion in guidance on the issue.
- Option 4B: Members concur with the benchmark agents used in the report, and suggest that these be applied as appropriate going forward.
- Option 4C: Members do not concur with the benchmark agents used in the report, and suggest that more appropriate benchmark agents be identified for application as appropriate going forward.

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Findings and Options

Part 9 of 16

- Finding: Although the report does not prioritize future post mortem research involving biological agents, it suggests that future studies should focus on agents with the greatest exposure risk and should include bacteria, viruses and prions. The report also suggests a more sophisticated quantitative approach, such as process-based risk models based on individual tasks. A process-based model would allow risk to be individualized according to specific tasks, focusing on those that may generate the highest risk.

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Findings and Options

Part 10 of 16

- Option 5A: Members propose that the ASD(HA) task the SMEs at USAMRIID to work with DoD to develop exploratory studies of biological agents of concern postmortem.
- Option 5B: Members concur that post mortem research involving biological agents be proposed and prioritized.
- Option 5C: Members do not concur that post mortem research involving biological agents be proposed and prioritized.

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Findings and Options

Part 11 of 16

- Finding: The report concludes that biological agents scoring lower than all the benchmark agents for transporters do not require any additional packaging to safely transport decedents to and through the U.S.

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Findings and Options

Part 12 of 16

- Option 6A: Members propose that USAMRIID review the levels of packaging proposed within the report, and recommend revisions if and as appropriate.
- Option 6B: Members concur that biological agents scoring lower than all the benchmark agents for transporters do not require any additional packaging to safely transport decedents to and through the U.S.
- Option 6C: Members suggest that the finalized guidance on packaging specify what should be used, rather than what packaging should not be used. The responsible authority should review the feedback provided by USAMRIID and provide guidance on packaging that is a conservative estimate of what equipment is necessary

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Findings and Options

Part 13 of 16

- Finding: The report concludes that biological agents categorized as Risk Group three for Transporters do not require any additional packaging to safely transport decedents to and through the U.S.

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Findings and Options

Part 14 of 16

- Option 7A: Members concur that biological agents categorized as Risk Group three for Transporters do not require any additional packaging to safely transport decedents to and through the U.S.
- Option 7B: With respect to Transporters, Members suggest that the finalized guidance on packaging should specify what should be used, rather than what packaging should not be used. The responsible authority should review the feedback provided by USAMRIID and provide guidance on packaging that is a conservative estimate of what equipment is necessary.

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Findings and Options

Part 15 of 16

- Finding: The report reaches several conclusions regarding PPE including that transporters who handle packaged biologically contaminated decedents do not need to wear any PPE in addition to that already required by CDC Standard Precautions for contact hazards.

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Findings and Options

Part 16 of 16

- Option 8A: Members concur that handlers and transporters who are in contact with packaged biologically contaminated decedents do not need to wear any PPE in addition to that required by CDC Standard Precautions for contact hazards.
- Option 8B: Members suggest that the finalized guidance on PPE specify the level of PPE that handlers and transporters should wear, rather than what they should not wear. The responsible authority should review the feedback provided by USAMRIID and provide guidance on PPE that is a conservative estimate of what equipment is necessary.

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Questions?

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Meetings and Briefings
Part 1 of 3

- June 26, 2012
  - Co-located with DHB meeting in Frederick, MD
  - Reviewed and accepted Terms of Reference
  - Began report discussion

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Meetings and Briefings
Part 2 of 3

- August 20, 2012
  - Co-located with DHB meeting in Chicago, IL
  - Further discussed report and a way forward.
  - Proposed a meeting at Fort Lee, VA with the Joint Mortuary Affairs Center and report authors

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Meetings and Briefings

Part 3 of 3

- September 26-27, 2012 Fort Lee, VA
  - Received Mortuary Affairs Briefings:
    - Joint Mortuary Affairs Center
      - Leadership, Training, and report authors
    - U.S. Army Institute of Public Health
    - U.S. Army Medical Research Institute of Infectious Diseases
    - Joint Requirements Office

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