

mental system evaluation, maintenance of a design knowledge base, and iterative system refinements

Conclusions: A pandemic nowcasting system test bed has been designed and implemented for use in experiments with data sources, outbreak detection algorithms, artificial and factual populations, and alternative simulation models. The results of this study will contribute to an improved understanding of methods for information system development as support for infectious disease control.

References

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Keywords: nominal group methods; pandemic; public health informatics; response; system design

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(F50) Disaster Waiting to Happen: A Predicted Shigella Epidemic that Unfolded

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Background: In early March 2006, the Norwegian Deployable Hospital (NDH) took on the Role-3 Responsibility for the Northern Forces of the International Assistance Forces in Afghanistan (ISAF), by deploying a field hospital capable of providing medical and surgical support to all ISAF Forces north of Hindu Kush.

Pre-Event: The provision of meals and food was outsourced to a private company (Supreme), staffed by expatriate and local workers. By the end of March, the Force Hygiene Officer inspected this facility, kitchen, and dining room. The inspection (documented by pictures) revealed severe shortfalls regarding hygiene and basic understanding of hygiene principles. Complaints in the report did not result in compliance.

Event/Damage: Shortly after this inspection, on 31 March, at 12:00 hours, members of the forces who had dined at Supreme experienced severe diarrhea and vomiting. Some troops, including a surgeon on-duty, were found somnolent next to the latrines and had to be supported to get to the medical facility. More than 100 troops were registered sick. Laboratory results later confirmed *Shigella Sonnei*, resistant to doxycycline and cotrimoxazole. The source later was found to be a locally employed dishwasher that had not been tested for any infectious diseases.

Clinical symptoms gave suspicion of *Shigella dysenteriae*. Consequently, the number expected to report sick was estimated to be high with an incubation period ranging from 1–5 days. The medical staff already was heavily incapacitated and the facilities were filled by the morning of 01 April.

Response: Two warehouse tents were erected with a bed capacity >200. Furthermore, the NDH asked for assistance from the German Field Hospital in Kabul who sent a team of 23 healthcare personnel to enhance surge capacity. Intravenous fluid replacement or oral rehydration combined with ciprofloxacin (intravenous or oral) was started.

Outcomes: After seven days, most patients were referred to their sick bay, and after 14 days, the last soldier resumed work. Follow-up for late complications was at the discretion of the national medical support system of each nation.

Conclusions: This negligence of basic hygiene principles in a food production facility resulted in a severe event that could have led to a fatal outcome. More than 110 patients reported sick, while German troops suffered a financial loss every day they reported sick. The consequence of this latter policy may be dangerous.

Further details will be discussed during the presentation.

Keywords: disaster response; food safety; International Assistance Forces in Afghanistan; hygiene; Norwegian Deployable Hospital; Shigella

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(F51) Awaiting Pandemic Avian Influenza: The Viewpoint of Emergency Medicine Department Personnel in Northern Italy

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Introduction: Microbiologists recognize the inevitability of an avian influenza pandemic on the basis of the increasing number of H5N1 infections in animals and humans. During the last year, the death rates increased. Conversely, the media's interest waned; the risk of avian flu seems underplayed. Emergency medicine departments (EMDs) are healthcare areas where the possibility of an infectious disease threat is paramount.

On the basis of the results of a survey done in a north-eastern Italian EMD (140,000 visits/year), the survey was conducted in another EMD (30,000 visits/year) in north-western Italy in an effort to understand how healthcare professionals faced the issue one year later.

Objective: The objectives of this study were to: (1) assess how healthcare professionals consider their training toward infectious diseases epidemics/pandemics; (2) assess how risk perception for self/family and consequent stress affects attendance pattern/willingness to work during pandemic influenza; and (3) suggest means for reducing absenteeism impact through meeting personnel's needs/perceptions.

Methods: An anonymous questionnaire was distributed to emergency department personnel (physicians, registered nurses, ward clerks) who may be called to respond during a pandemic influenza.

Results: The majority considered themselves to be informed about avian influenza, and was willing to report. Family safety was the main issue. Timely information, protocols, and periodic courses and drills with adequate means of protection are considered paramount; active participation in acquiring information and training can create the sensation of being part of the whole system.

Keywords: avian influenza; emergency departments; Italy; pandemics; personnel

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